



City of Wheaton, Illinois

City of Wheaton  
303 W. Wesley Street  
Wheaton, IL 60187-0727  
630-260-2000  
[www.wheaton.il.us](http://www.wheaton.il.us)

## *Painting Street Light Poles*

### ***Invitation to Bid Amendment #1***

*The following changes / clarifications / additions have been added to the Invitation to Bid project specifications and plans:*

**QUESTION:** Would it be possible to use these products in the bid for the light poles. Specifications are attached.

Sherwin-Williams products

Primer: B58T00101 - Macropoxy® 920 PrePrime Rust Penetrating Epoxy Pre-Primer Transparent Part A

Primer: B58V00010 - Macropoxy® 920 PrePrime Rust Penetrating Epoxy Pre-Primer Hardener Part B

Intermediate Coat: B58W00610 - Macropoxy® 646 Fast Cure Epoxy Part A Mill White

Intermediate Coat: B58V00600 - Macropoxy® 646 Fast Cure Epoxy Part B Hardener

Topcoat: B65W00721 - Pro Industrial Waterbased Acrolon 100 Polyurethane (Part A) Extra White

Topcoat: B65V00720 - Pro Industrial Waterbased Acrolon 100 Polyurethane (Part B) Hardener

**ANSWER:** Yes. The above products are deemed approved equivalent.

**Attachments:** Specifications

Contacts for this proposal:

Joan M. Schouten CPIM CPPB; Procurement Officer; [JSchouten@wheaton.il.us](mailto:JSchouten@wheaton.il.us)



## SCHEDEULE

### Exterior Finishes

#### Light Poles

Primer: B58T00101 - Macropoxy® 920 PrePrime Rust Penetrating Epoxy Pre-Primer Transparent Part A

Primer: B58V00010 - Macropoxy® 920 PrePrime Rust Penetrating Epoxy Pre-Primer Hardener Part B

Intermediate Coat: B58W00610 - Macropoxy® 646 Fast Cure Epoxy Part A Mill White

Intermediate Coat: B58V00600 - Macropoxy® 646 Fast Cure Epoxy Part B Hardener

Topcoat: B65W00721 - Pro Industrial Waterbased Acrolon 100 Polyurethane (Part A) Extra White

Topcoat: B65V00720 - Pro Industrial Waterbased Acrolon 100 Polyurethane (Part B) Hardener

END OF SECTION



## **SURFACE PREPARATION**

### **1) Previously Coated Surfaces**

Maintenance painting will frequently not permit or require complete removal of all old coatings prior to repainting. However, all surface contamination such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mold, mildew, mortar, efflorescence, and sealers must be removed to assure sound bonding to the tightly adhering old paint. Glossy surfaces of old paint films must be clean and dull before repainting. Thorough washing with an abrasive cleanser will clean and dull in one operation, or, wash thoroughly and dull by sanding. Spot prime any bare areas with an appropriate primer. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system. Check for compatibility by applying a test patch of the recommended coating system, covering at least 2 to 3 square feet. Allow to dry one week before testing adhesion per ASTM D3359. If the coating system is incompatible, complete removal is required.

### **2) Solvent Cleaning**

Solvent Cleaning is a method for removing all visible oil, grease, soil, drawing and cutting compounds, and other soluble contaminants. Solvent cleaning does not remove rust or mill scale. Change rags and cleaning solution frequently so that deposits of oil and grease are not spread over additional areas in the cleaning process. Be sure to allow adequate ventilation. For complete instructions, refer to Steel Structures Paint Council Surface Preparation Specification No. 1. (SSPC-SP1)

### **3) Hand Tool Cleaning**

Hand Tool Cleaning removes all loose mill scale, loose rust, and other detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Mill scale, rust, and paint are considered adherent if they cannot be removed by lifting with a dull putty knife. Before hand tool cleaning, remove visible oil, grease, soluble residues, and salts by the methods outlined in SSPC-SP1. For complete instructions, refer to Steel Structures Paint Council Surface Preparation Specification No. 2 (SSPC-SP2)

### **4) Power Tool Cleaning**

Power Tool Cleaning removes all loose mill scale, loose rust, and other detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Mill scale, rust, and paint are considered adherent if they cannot be removed by lifting with a dull putty knife. Before power tool cleaning, remove visible oil, grease, soluble residues, and salts by the methods outlined in SSPC-SP1. For complete instructions, refer to Steel Structures Paint Council Surface Preparation Specification No.3.(SSP-PC3)

**END OF SPECIFICATION**

# **Data Pages**





# Protective & Marine Coatings

# MACROPOXY® 920 PRE-PRIME PENETRATING EPOXY PRE-PRIMER

PART A  
PART B

B58T101  
B58V10

TRANSPARENT  
HARDENER

Revised: August 17, 2015

4.50

## PRODUCT INFORMATION

### RECOMMENDED SYSTEMS

#### Dry Film Thickness / ct. Mils (Microns)

#### Steel:

1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
2 cts.	Macropoxy HS	3.0-6.0	(75-150)

#### Steel, zinc rich primer:

1 ct.	Zinc Clad IV	3.0-5.0	(75-125)
1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
1 ct.	Macropoxy HS	3.0-6.0	(75-150)
1 ct.	Acrolon 218 HS Acrylic Polyurethane	3.0-6.0	(75-150)

#### Masonry and Concrete:

1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
1-2 cts.	Tile-Clad Hi-Solids	2.5-4.0	(63-100)

#### Previously Painted Surfaces:

1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
-------	-------------------------	---------	---------

#### Acceptable topcoats:

Acrolon 218 HS  
Pro Industrial DTM Acrylic  
Epo-Plex Multi-Mil Epoxy  
Hi-Solids Polyurethane  
Macropoxy 646  
Macropoxy HS  
Polysiloxane XLE-80  
Sher-Cryl HPA  
Tile-Clad HS

#### FIRETEX M89/02, M90, M90/02, and M93/02:

#### Steel Substrates being primed for FIRETEX only:

1 ct.	Zinc Clad IV	3.0-5.0	(75-125)
1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)

#### Steel Substrates being primed for FIRETEX only:

1 ct.	Zinc Clad II	2.0-4.0	(50-100)
1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)

The systems listed above are representative of the product's use, other systems may be appropriate.

### DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

### SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel: SSPC-SP2  
Masonry / Concrete: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3  
Previously Painted: SSPC-SP1

#### Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079: A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted C St 2	C St 2	SP 2	-
	Pitted & Rusted D St 2	D St 2	SP 2	-
	Rusted C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted D St 3	D St 3	SP 3	-

### TINTING

May be shaded with up to 2 oz of Maxitoner Colorants per gallon. Not controlled for tint strength.

### APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 120°F (49°C) maximum (air, surface, and material)  
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

### ORDERING INFORMATION

#### Packaging:

Part A: 3 quarts (2.8L) in a 1 gallon (3.78L) container  
3 gallons (11.3L) in a 5 gallon (18.9L) container  
Part B: 1 quart (0.94L) and 1 gallon (3.78L)  
1 gallon (3.78L) and 4 gallons (15.1L) mixed

Weight: 8.47 ± 0.2 lb/gal ; 1.0 Kg/L, mixed

### SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

### WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



Protective  
&  
Marine  
Coatings

# MACROPOXY® 920 PRE-PRIME PENETRATING EPOXY PRE-PRIMER

PART A  
PART B

B58T101  
B58V10

TRANSPARENT  
HARDENER

Revised: August 17, 2015

## APPLICATION BULLETIN

4.50

### SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

#### Iron & Steel

Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (1.0-2.0 mils / 25-50 microns). Prime any bare steel within 8 hours or before flash rusting occurs.

#### Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910.

#### Follow the standard methods listed below when applicable:

ASTM D4258 Standard Practice for Cleaning Concrete.

ASTM D4259 Standard Practice for Abrading Concrete.

ASTM D4260 Standard Practice for Etching Concrete.

ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.

SSPC-SP 13/Nace 6 Surface Preparation of Concrete.

ICRI No. 310.2R Concrete Surface Preparation.

#### Previously Painted Surfaces:

If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this products attacks the previous finish, removal of the previous coating may be necessary. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

### APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 120°F (49°C) maximum (air, surface, and material)  
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

### APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

**Reducer** .....Not recommended

**Clean-Up** .....Reducer #54, R7K54

#### Airless Spray (see note on next page)

Pressure.....2200 - 2500 psi

Hose.....1/4" ID

Tip .....015"

Filter .....60 mesh

#### Conventional Spray

Gun .....Binks 95

Tip .....66

Cap .....63 PB

Atomization Pressure.....50 psi

Fluid Pressure.....10 psi

#### Brush

Brush.....Natural Bristle

#### Roller

Cover .....1/4"-3/8" woven with solvent resistant core

If specific application equipment is not listed above, equivalent equipment may be substituted.

#### Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted Pitted & Rusted	C St 2 D St 2	SP 2 SP 2	-
Power Tool Cleaning	Rusted Pitted & Rusted	C St 3 D St 3	SP 3 SP 3	-



# Protective & Marine Coatings

# MACROPOXY® 920 PRE-PRIME PENETRATING EPOXY PRE-PRIMER

PART A  
PART B

B58T101  
B58V10

TRANSPARENT  
HARDENER

Revised: August 17, 2015

## APPLICATION BULLETIN

4.50

### APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Use low speed mechanical agitation to mix Part A and Part B separately, then add 1 part by volume of Part B to 3 parts by volume of Part A. Mix the combined parts using low speed power agitation for at least 5 minutes. Mixed material will generate heat and should be handled appropriately, using all material before pot life expiration, and cleaning lines and equipment immediately after use. Higher temperatures will decrease working pot life, while lower temperatures will increase it.

If reducer solvent is used, add only after both components have been thoroughly mixed.

Apply paint at the recommended film thickness and spreading rate as indicated below:

#### Recommended Spreading Rate per coat:

	Minimum	Maximum
<b>Wet mils</b> (microns)	<b>1.5</b> (40)	<b>2.0</b> (50)
<b>Dry mils</b> (microns)	<b>1.5</b> (40)	<b>2.0</b> (50)
<b>~Coverage sq ft/gal</b> (m <sup>2</sup> /L)		
Steel	<b>800</b> (19.6)	<b>1050</b> (25.7)
Concrete	<b>400</b> (9.8)	<b>500</b> (13.0)
Theoretical coverage sq ft/gal (m <sup>2</sup> /L) @ 1 mil / 25 microns dft	<b>1600</b> (39.2)	

#### Drying Schedule @ 2.0 mils wet (50 microns):

**@ 40°F/4.5°C      @ 77°F/25°C      @ 120°F/49°C**

**50% RH**

**To touch:** 18 hours      9.5 hours      7 hours  
**Tack-free:** 32 hours      17 hours      14 hours

**To recoat:**  
**minimum:** 36 hours      12 hours      12 hours  
**maximum:** 30 days      30 days      30 days

*Drying time is temperature, humidity, and film thickness dependent.*

**Pot Life:** 8-10 hours      4 hours      3-4 hours  
**Sweat-in-Time:** None required

### CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer #54, R7K54. Clean tools immediately after use with Reducer #54, R7K54. Follow manufacturer's safety recommendations when using any solvent.

### DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

### PERFORMANCE TIPS

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

No reduction of material is recommended as it can affect film build, appearance, and adhesion.

Do not apply the material beyond recommended pot life.

Do not mix previously catalyzed material with new.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer #54, R7K54.

For better performance in severely corrosive environments, or over heavily rusted/pitted steel or porous concrete and masonry, two coats may be required.

Roll out any puddles.

Airless spray is acceptable for application; however, the product should be back-rolled to eliminate excessive millage and puddles.

Gloss may vary depending on substrate and film thickness.

Can be used as a metalizing sealer. Consult Technical Bulletin - Sealers for Thermal Spray Metalizing, or your local Sherwin-Williams representative.

Refer to Product Information sheet for additional performance characteristics and properties.

### SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

### WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.





Protective  
&  
Marine  
Coatings

# MACROPOXY® 920 PRE-PRIME PENETRATING EPOXY PRE-PRIMER

PART A  
PART B

B58T101  
B58V10

TRANSPARENT  
HARDENER

Revised: August 17, 2015

4.50

## PRODUCT INFORMATION

### RECOMMENDED SYSTEMS

#### Dry Film Thickness / ct. Mils (Microns)

#### Steel:

1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
2 cts.	Macropoxy HS	3.0-6.0	(75-150)

#### Steel, zinc rich primer:

1 ct.	Zinc Clad IV	3.0-5.0	(75-125)
1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
1 ct.	Macropoxy HS	3.0-6.0	(75-150)
1 ct.	Acrolon 218 HS Acrylic Polyurethane	3.0-6.0	(75-150)

#### Masonry and Concrete:

1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
1-2 cts.	Tile-Clad Hi-Solids	2.5-4.0	(63-100)

#### Previously Painted Surfaces:

1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
-------	-------------------------	---------	---------

#### Acceptable topcoats:

Acrolon 218 HS  
Pro Industrial DTM Acrylic  
Epo-Plex Multi-Mil Epoxy  
Hi-Solids Polyurethane  
Macropoxy 646  
Macropoxy HS  
Polysiloxane XLE-80  
Sher-Cryl HPA  
Tile-Clad HS

#### FIRETEX M89/02, M90, M90/02, and M93/02:

#### Steel Substrates being primed for FIRETEX only:

1 ct.	Zinc Clad IV	3.0-5.0	(75-125)
1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)

#### Steel Substrates being primed for FIRETEX only:

1 ct.	Zinc Clad II	2.0-4.0	(50-100)
1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)

The systems listed above are representative of the product's use, other systems may be appropriate.

### DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

### SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel: SSPC-SP2  
Masonry / Concrete: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3  
Previously Painted: SSPC-SP1

#### Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079: A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted C St 2	C St 2	SP 2	-
	Pitted & Rusted D St 2	D St 2	SP 2	-
	Rusted C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted D St 3	D St 3	SP 3	-

### TINTING

May be shaded with up to 2 oz of Maxitoner Colorants per gallon. Not controlled for tint strength.

### APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 120°F (49°C) maximum (air, surface, and material)  
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

### ORDERING INFORMATION

#### Packaging:

Part A: 3 quarts (2.8L) in a 1 gallon (3.78L) container  
3 gallons (11.3L) in a 5 gallon (18.9L) container  
Part B: 1 quart (0.94L) and 1 gallon (3.78L)  
1 gallon (3.78L) and 4 gallons (15.1L) mixed

Weight: 8.47 ± 0.2 lb/gal ; 1.0 Kg/L, mixed

### SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

### WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



Protective  
&  
Marine  
Coatings

# MACROPOXY® 920 PRE-PRIME PENETRATING EPOXY PRE-PRIMER

PART A  
PART B

B58T101  
B58V10

TRANSPARENT  
HARDENER

Revised: August 17, 2015

## APPLICATION BULLETIN

4.50

### SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

#### Iron & Steel

Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (1.0-2.0 mils / 25-50 microns). Prime any bare steel within 8 hours or before flash rusting occurs.

#### Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910.

#### Follow the standard methods listed below when applicable:

ASTM D4258 Standard Practice for Cleaning Concrete.

ASTM D4259 Standard Practice for Abrading Concrete.

ASTM D4260 Standard Practice for Etching Concrete.

ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.

SSPC-SP 13/Nace 6 Surface Preparation of Concrete.

ICRI No. 310.2R Concrete Surface Preparation.

#### Previously Painted Surfaces:

If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this product attacks the previous finish, removal of the previous coating may be necessary. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

### APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 120°F (49°C) maximum (air, surface, and material)  
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

### APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

**Reducer** .....Not recommended

**Clean-Up** .....Reducer #54, R7K54

#### Airless Spray (see note on next page)

Pressure.....2200 - 2500 psi

Hose.....1/4" ID

Tip .....0.015"

Filter .....60 mesh

#### Conventional Spray

Gun .....Binks 95

Tip .....66

Cap .....63 PB

Atomization Pressure.....50 psi

Fluid Pressure.....10 psi

#### Brush

Brush.....Natural Bristle

#### Roller

Cover .....1/4"-3/8" woven with solvent resistant core

If specific application equipment is not listed above, equivalent equipment may be substituted.

#### Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted Pitted & Rusted	C St 2 D St 2	SP 2 SP 2	-
Power Tool Cleaning	Rusted Pitted & Rusted	C St 3 D St 3	SP 3 SP 3	-



# Protective & Marine Coatings

# MACROPOXY® 920 PRE-PRIME PENETRATING EPOXY PRE-PRIMER

PART A  
PART B

B58T101  
B58V10

TRANSPARENT  
HARDENER

Revised: August 17, 2015

## APPLICATION BULLETIN

4.50

### APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Use low speed mechanical agitation to mix Part A and Part B separately, then add 1 part by volume of Part B to 3 parts by volume of Part A. Mix the combined parts using low speed power agitation for at least 5 minutes. Mixed material will generate heat and should be handled appropriately, using all material before pot life expiration, and cleaning lines and equipment immediately after use. Higher temperatures will decrease working pot life, while lower temperatures will increase it.

If reducer solvent is used, add only after both components have been thoroughly mixed.

Apply paint at the recommended film thickness and spreading rate as indicated below:

#### Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	1.5 (40)	2.0 (50)
Dry mils (microns)	1.5 (40)	2.0 (50)
~Coverage sq ft/gal (m <sup>2</sup> /L)		
Steel	800 (19.6)	1050 (25.7)
Concrete	400 (9.8)	500 (13.0)
Theoretical coverage sq ft/gal (m <sup>2</sup> /L) @ 1 mil / 25 microns dft	1600 (39.2)	

#### Drying Schedule @ 2.0 mils wet (50 microns):

@ 40°F/4.5°C @ 77°F/25°C @ 120°F/49°C

50% RH

To touch: 18 hours 9.5 hours 7 hours  
Tack-free: 32 hours 17 hours 14 hours

To recoat:  
minimum: 36 hours 12 hours 12 hours  
maximum: 30 days 30 days 30 days

Drying time is temperature, humidity, and film thickness dependent.

Pot Life: 8-10 hours 4 hours 3-4 hours  
Sweat-in-Time: None required

### CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer #54, R7K54. Clean tools immediately after use with Reducer #54, R7K54. Follow manufacturer's safety recommendations when using any solvent.

### DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

### PERFORMANCE TIPS

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

No reduction of material is recommended as it can affect film build, appearance, and adhesion.

Do not apply the material beyond recommended pot life.

Do not mix previously catalyzed material with new.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer #54, R7K54.

For better performance in severely corrosive environments, or over heavily rusted/pitted steel or porous concrete and masonry, two coats may be required.

Roll out any puddles.

Airless spray is acceptable for application; however, the product should be back-rolled to eliminate excessive millage and puddles.

Gloss may vary depending on substrate and film thickness.

Can be used as a metalizing sealer. Consult Technical Bulletin - Sealers for Thermal Spray Metalizing, or your local Sherwin-Williams representative.

Refer to Product Information sheet for additional performance characteristics and properties.

### SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

### WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



# Protective & Marine Coatings

# MACROPOXY® 646 FAST CURE EPOXY

PART A  
PART B

B58-600  
B58V600

SERIES  
HARDENER

Revised: April 15, 2016

4.53

## PRODUCT INFORMATION

### PRODUCT DESCRIPTION

**MACROPOXY 646 FAST CURE EPOXY** is a high solids, high build, fast drying, polyamide epoxy designed to protect steel and concrete in industrial exposures. Ideal for maintenance painting and fabrication shop applications. The high solids content ensures adequate protection of sharp edges, corners, and welds. This product can be applied directly to marginally prepared steel surfaces.

- Low VOC
- Chemical resistant
- Low odor
- Abrasion resistant
- Outstanding application properties
- Meets Class A requirements for Slip Coefficient, 0.36 @ 6 mils / 150 microns dft (Mill White only)

### PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss	
Color:	Mill White, Black and a wide range of colors available through tinting	
Volume Solids:	72% ± 2%, mixed, Mill White	
Weight Solids:	85% ± 2%, mixed, Mill White	
VOC (EPA Method 24): mixed	Unreduced: <250 g/L; 2.08 lb/gal	Reduced 10%: <300 g/L; 2.50 lb/gal
Mix Ratio:	1:1 by volume	

### Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	7.0 (175)	13.5 (338)
Dry mils (microns)	5.0* (125)	10.0* (250)
~Coverage sq ft/gal (m²/L)	116 (2.8)	232 (5.7)

Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft

\*May be applied at 3.0-10.0 mils (75-250 microns) dft in a multi-coat system. Refer to Recommended Systems and Performance Tips Section.

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

### Drying Schedule @ 7.0 mils wet (175 microns):

@ 35°F/1.7°C    @ 77°F/25°C    @ 100°F/38°C  
50% RH

To touch:	4-5 hours	2 hours	1.5 hours
To handle:	48 hours	8 hours	4.5 hours
To recoat: minimum:	48 hours	8 hours	4.5 hours
maximum:	1 year	1 year	1 year
To cure: Service:	10 days	7 days	4 days
Immersion:	14 days	7 days	4 days

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent. Paint temperature must be at least 40°F (4.5°C) minimum.

Pot Life: 10 hours    4 hours    2 hours  
Sweat-in-time: 30 minutes    30 minutes    15 minutes

### When used as an intermediate coat as part of a multi-coat system:

#### Drying Schedule @ 5.0 mils wet (125 microns):

@ 35°F/1.7°C    @ 77°F/25°C    @ 100°F/38°C  
50% RH

To touch:	3 hours	1 hour	1 hour
To handle:	48 hours	4 hours	2 hours
To recoat: minimum:	16 hours	4 hours	2 hours
maximum:	1 year	1 year	1 year

### PRODUCT CHARACTERISTICS (CONT'D)

<b>Shelf Life:</b>	36 months, unopened Store indoors at 40°F (4.5°C) to 110°F (43°C).
<b>Flash Point:</b> <b>Reducer/Clean Up:</b> In California:	91°F (33°C), TCC, mixed Reducer, R7K15 Reducer R7K111 or Oxsol 100

### PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	84 mg loss
Accelerated Weathering-QUV <sup>1</sup>	ASTM D4587, QUV-A, 12,000 hours	Passes
Adhesion	ASTM D4541	1,037 psi
Corrosion Weathering <sup>1</sup>	ASTM D5894, 36 cycles, 12,000 hours	Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D610 per rusting
Nuclear Decontamination	ASTM D4256/ANSI N 5.12	99% Water Wash; 95% Overall
Direct Impact Resistance <sup>2</sup>	ASTM D2794 Modified	**120 in. lb.
Dry Heat Resistance	ASTM D2485	250°F (121°C)
Exterior Durability	1 year at 45° South	Excellent, chalks
Flexibility	ASTM D522, 180° bend, 3/4" mandrel	Passes
Fuel Contribution	NFPA 259	5764 btu/lb
Humidity Resistance	ASTM D4585, 6000 hours	No blistering, cracking, or rusting
Immersion	1 year fresh and salt water	Passes, no rusting, blistering, or loss of adhesion
Radiation Tolerance	ASTM D4082 / ANSI 5.12	Pass at 21 mils (525 microns)
Pencil Hardness	ASTM D3363	3H
Salt Fog Resistance <sup>1</sup>	ASTM B117, 6,500 hours	Rating 10 per ASTM D610 for rusting; Rating 9 per ASTM D1654 for corrosion
Slip Coefficient, Mill White*	AISC Specification for Structural Joints Using ASTM A325 or ASTM A490 Bolts	Class A, 0.36
Surface Burning	ASTM E84/NFPA 255	Flame Spread Index 20; Smoke Development Index 35 (at 18 mils or 450 microns)
Water Vapor Permeance	ASTM D1653, Method B	1.16 US perms

Epoxy coatings may darken or discolor following application and curing.

\*Refer to Slip Certification document

\*\* Performed on 1/16 inch blasted steel

Footnotes:

<sup>1</sup>Zinc Clad II Plus Primer

<sup>2</sup>Two coats of Macropoxy 646 Fast Cure Epoxy

### DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.



# Protective & Marine Coatings

Revised: April 15, 2016

# MACROPOXY® 646 FAST CURE EPOXY

PART A  
PART B

B58-600  
B58V600

SERIES  
HARDENER

## PRODUCT INFORMATION

4.53

RECOMMENDED USES	
Marine applications	Refineries
Fabrication shops	Chemical plants
Pulp and paper mills	Tank exteriors
Power plants	Water treatment plants
Offshore platforms	DOE Nuclear Fuel Facilities
Nuclear Power Plants	DOE Nuclear Weapons Facilities
Nuclear fabrication shops	
Mill White and Black are acceptable for immersion use for salt water and fresh water, not acceptable for potable water	
Suitable for use in USDA inspected facilities	
Acceptable for use in Canadian Food Processing facilities, categories: D1, D2, D3 (Confirm acceptance of specific part numbers/rexes with your SW Sales Representative)	
Conforms to AWWA D102 OCS #5	
Conforms to MPI # 108	
This product meets specific design requirements for non-safety related nuclear plant applications in Level II, III and Balance of Plant, and DOE nuclear facilities*.	
* Nuclear qualifications are NRC license specific to the facility.	
Suitable for use in the Mining & Minerals Industry	
Acceptable for use over and/or under Loxon S1 and Loxon H1 Caulking	

## RECOMMENDED SYSTEMS

Dry Film Thickness / ct.  
Mils (Microns)

### Immersion and atmospheric:

#### Steel:

2 cts. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)

#### Concrete/Masonry, smooth:

2 cts. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)

#### Concrete Block:

1 ct. Kem Cati-Coat HS Epoxy 10.0-20.0 (250-500)  
Filler/Sealer

as needed to fill voids and provide a continuous substrate.

2 cts. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)

#### Atmospheric:

#### Steel:

(Shop applied system, new construction, AWWA D102, can also be used at 3 mils / 75 microns minimum dft when used as an intermediate coat as part of a multi-coat system)

1 ct. Macropoxy 646 Fast Cure Epoxy 3.0-6.0 (75-150)  
1-2 cts. of recommended topcoat

#### Steel:

1 ct. Recoatable Epoxy Primer 4.0-6.0 (100-150)  
2 cts. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)

#### Steel:

1 ct. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)  
1-2 cts. Acrolon 218 Polyurethane 3.0-6.0 (75-150)  
or Hi-Solids Polyurethane 3.0-5.0 (75-125)  
or Sherthane 2K Urethane 2.0-4.0 (50-100)  
or Hydrogloss 2.0-4.0 (50-100)

#### Steel:

2 cts. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)  
1-2 cts. Tile-Clad HS Epoxy 2.5-4.0 (63-100)

#### Steel:

1 ct. Zinc Clad II Plus 2.0-4.0 (50-100)  
1 ct. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)  
1-2 cts. Acrolon 218 Polyurethane 3.0-6.0 (75-150)

#### Steel:

1 ct. Zinc Clad III HS 3.0-5.0 (75-125)  
or Zinc Clad IV 3.0-5.0 (75-125)  
1 ct. Macropoxy 646 Fast Cure Epoxy 3.0-10.0 (75-250)  
1-2 cts. Acrolon 218 Polyurethane 3.0-6.0 (75-150)

#### Aluminum:

2 cts. Macropoxy 646 Fast Cure Epoxy 2.0-4.0 (50-100)

#### Galvanizing:

2 cts. Macropoxy 646 Fast Cure Epoxy 2.0-4.0 (50-100)

#### FIRETEX M89/02, M90, M90/02, and M93/02:

#### Steel & Galvanized Substrates being primed for FIRETEX only:

1 ct. Macropoxy 646 Fast Cure Epoxy 2.0-5.0 (50-125)

The systems listed above are representative of the product's use, other systems may be appropriate.

## SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel	
Atmospheric:	SSPC-SP2/3
Immersion:	SSPC-SP10/NACE 2, 2-3 mil (50-75 micron) profile
Aluminum:	SSPC-SP1
Galvanizing:	SSPC-SP1; See Surface Preparations section on page 3 for application of FIRETEX intumescent coating systems

#### Concrete & Masonry

Atmospheric:	SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3
Immersion:	SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI No. 310.2R, CSP 2-4

## Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	3
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted C St 2	C St 2	SP 2	-
	Pitted & Rusted D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted C St 3	C St 3	SP 3	-
	Pitted & Rusted D St 3	D St 3	SP 3	-

## TINTING

Tint Part A with Maxitoners at 150% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

Tinting is not recommended for immersion service.

## APPLICATION CONDITIONS

Temperature: 35°F (1.7°C) minimum, 120°F (49°C) maximum (air and surface)  
40°F (4.5°C) minimum, 120°F (49°C) maximum (material)

Relative humidity: At least 5°F (2.8°C) above dew point  
85% maximum

Refer to product Application Bulletin for detailed application information.

## ORDERING INFORMATION

Packaging:  
Part A: 1 gallon (3.78L) and 5 gallon (18.9L) containers  
Part B: 1 gallon (3.78L) and 5 gallon (18.9L) containers

Weight: 12.9 ± 0.2 lb/gal ; 1.55 Kg/L  
mixed, may vary by color

## SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

## WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



# Protective & Marine Coatings

Revised: April 15, 2016

# MACROPOXY® 646 FAST CURE EPOXY

PART A  
PART B

B58-600  
B58V600

SERIES  
HARDENER

## APPLICATION BULLETIN

4.53

### SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

#### Iron & Steel, Atmospheric Service:

Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel within 8 hours or before flash rusting occurs.

#### Iron & Steel, Immersion Service:

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2-3 mils / 50-75 microns). Remove all weld spatter and round all sharp edges by grinding. Prime any bare steel the same day as it is cleaned.

#### Aluminum

Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1.

#### Galvanized Steel

Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1 (recommended solvent is VM&P Naphtha). When weathering is not possible, or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test patch. Allow paint to dry at least one week before testing adhesion. If adhesion is poor, brush blasting per SSPC-SP7 is necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day as cleaned. In preparing galvanized steel substrates for the application of FIRE-TEX intumescent coating systems, Surface Preparation Specification SSPC-SP 16 must be followed obtaining a surface profile of minimum 1.5 mils (38 microns). Optimum surface profile will not exceed 2.0 mils (50 microns).

#### Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910.

#### Concrete, Immersion Service:

For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2R, CSP 2-4.

#### Follow the standard methods listed below when applicable:

ASTM D4258 Standard Practice for Cleaning Concrete.

ASTM D4259 Standard Practice for Abrading Concrete.

ASTM D4260 Standard Practice for Etching Concrete.

ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.

SSPC-SP 13/Nace 6 Surface Preparation of Concrete.

ICRI No. 310.2R Concrete Surface Preparation.

#### Previously Painted Surfaces

If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this product attacks the previous finish, removal of the previous coating may be necessary. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

#### Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	D St 3	D St 3	SP 3	-

### APPLICATION CONDITIONS

Temperature: 35°F (1.7°C) minimum, 120°F (49°C) maximum (air and surface)  
40°F (4.5°C) minimum, 120°F (49°C) maximum (material)  
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

### APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

**Reducer/Clean Up** ..... Reducer R7K15  
In California ..... Reducer R7K111

#### Airless Spray

Pump ..... 30:1  
Pressure ..... 2800 - 3000 psi  
Hose ..... 1/4" ID  
Tip ..... .017" - .023"  
Filter ..... 60 mesh  
Reduction ..... As needed up to 10% by volume

#### Conventional Spray

Gun ..... DeVilbiss MBC-510  
Fluid Tip ..... E  
Air Nozzle ..... 704  
Atomization Pressure ..... 60-65 psi  
Fluid Pressure ..... 10-20 psi  
Reduction ..... As needed up to 10% by volume  
Requires oil and moisture separators

#### Brush

Brush ..... Nylon/Polyester or Natural Bristle  
Reduction ..... As needed up to 10% by volume

#### Roller

Cover ..... 3/8" woven with solvent resistant core  
Reduction ..... As needed up to 10% by volume

#### Plural Component Spray

...Acceptable  
Refer to April 2010 Technical Bulletin - "Application Guidelines for Macropoxy 646 Fast Cure Epoxy & Recoatable Epoxy Primer Utilizing Plural Component Equipment"  
If specific application equipment is not listed above, equivalent equipment may be substituted.



# Protective & Marine Coatings

Revised: April 15, 2016

# MACROPOXY® 646 FAST CURE EPOXY

PART A  
PART B

B58-600  
B58V600

SERIES  
HARDENER

## APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine one part by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation. Allow the material to sweat-in as indicated prior to application. Re-stir before using.

If reducer solvent is used, add only after both components have been thoroughly mixed, after sweat-in.

Apply paint at the recommended film thickness and spreading rate as indicated below:

### Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	7.0 (175)	13.5 (338)
Dry mils (microns)	5.0* (125)	10.0* (250)
~Coverage sq ft/gal (m²/L)	116 (2.8)	232 (5.7)

Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft

\*May be applied at 3.0-10.0 mils (75-250 microns) dft in a multi-coat system. Refer to Recommended Systems and Performance Tips Sections.

*NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.*

### Drying Schedule @ 7.0 mils wet (175 microns):

	@ 35°F/1.7°C 50% RH	@ 77°F/25°C	@ 100°F/38°C
To touch:	4-5 hours	2 hours	1.5 hours
To handle:	48 hours	8 hours	4.5 hours
To recoat:			
minimum:	48 hours	8 hours	4.5 hours
maximum:	1 year	1 year	1 year
To cure:			
Service:	10 days	7 days	4 days
Immersion:	14 days	7 days	4 days

*If maximum recoat time is exceeded, abrade surface before recoating.*

*Drying time is temperature, humidity, and film thickness dependent.*

Paint temperature must be at least 40°F (4.5°C) minimum.

Pot Life:	10 hours	4 hours	2 hours
Sweat-in-time:	30 minutes	30 minutes	15 minutes

### When used as an intermediate coat as part of a multi-coat system:

#### Drying Schedule @ 5.0 mils wet (125 microns):

	@ 35°F/1.7°C 50% RH	@ 77°F/25°C	@ 100°F/38°C
To touch:	3 hours	1 hour	1 hour
To handle:	48 hours	4 hours	2 hours
To recoat:			
minimum:	16 hours	4 hours	2 hours
maximum:	1 year	1 year	1 year

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

## CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer R7K15. Clean tools immediately after use with Reducer R7K15. In California use Reducer R7K111. Follow manufacturer's safety recommendations when using any solvent.

## APPLICATION BULLETIN

4.53

## PERFORMANCE TIPS

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer R7K15. In California use Reducer R7K111.

Tinting is not recommended for immersion service.

Use only Mill White and Black for immersion service.

Insufficient ventilation, incomplete mixing, miscatalyzed, and external heaters may cause premature yellowing.

Excessive film build, poor ventilation, and cool temperatures may cause solvent entrapment and premature coating failure.

Quik-Kick Epoxy Accelerator is acceptable for use. See data page 4.99 for details.

When coating over aluminum and galvanizing, recommended dft is 2-4 mils (50-100 microns).

Acceptable for Concrete Floors.

Can be used as a metalizing sealer. Consult Technical Bulletin - Sealers for Thermal Spray Metalizing, or your local Sherwin-Williams representative.

Refer to Product Information sheet for additional performance characteristics and properties.

## SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

## DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

## WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



# Protective & Marine Coatings

# MACROPOXY® 646 FAST CURE EPOXY

PART A  
PART B

B58-600  
B58V600

SERIES  
HARDENER

Revised: April 15, 2016

4.53

## PRODUCT INFORMATION

### PRODUCT DESCRIPTION

**MACROPOXY 646 FAST CURE EPOXY** is a high solids, high build, fast drying, polyamide epoxy designed to protect steel and concrete in industrial exposures. Ideal for maintenance painting and fabrication shop applications. The high solids content ensures adequate protection of sharp edges, corners, and welds. This product can be applied directly to marginally prepared steel surfaces.

- Low VOC
- Chemical resistant
- Low odor
- Abrasion resistant
- Outstanding application properties
- Meets Class A requirements for Slip Coefficient, 0.36 @ 6 mils / 150 microns dft (Mill White only)

### PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss
Color:	Mill White, Black and a wide range of colors available through tinting
Volume Solids:	72% ± 2%, mixed, Mill White
Weight Solids:	85% ± 2%, mixed, Mill White
VOC (EPA Method 24): mixed	Unreduced: <250 g/L; 2.08 lb/gal Reduced 10%: <300 g/L; 2.50 lb/gal
Mix Ratio:	1:1 by volume

### Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	7.0 (175)	13.5 (338)
Dry mils (microns)	5.0* (125)	10.0* (250)
~Coverage sq ft/gal (m²/L)	116 (2.8)	232 (5.7)

Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft

\*May be applied at 3.0-10.0 mils (75-250 microns) dft in a multi-coat system. Refer to Recommended Systems and Performance Tips Section.

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

### Drying Schedule @ 7.0 mils wet (175 microns):

@ 35°F/1.7°C	@ 77°F/25°C	@ 100°F/38°C
50% RH		

To touch:	4-5 hours	2 hours	1.5 hours
To handle:	48 hours	8 hours	4.5 hours
To recoat: minimum:	48 hours	8 hours	4.5 hours
maximum:	1 year	1 year	1 year
To cure: Service:	10 days	7 days	4 days
Immersion:	14 days	7 days	4 days

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent. Paint temperature must be at least 40°F (4.5°C) minimum.

Pot Life: 10 hours 4 hours 2 hours  
Sweat-in-time: 30 minutes 30 minutes 15 minutes

### When used as an intermediate coat as part of a multi-coat system:

#### Drying Schedule @ 5.0 mils wet (125 microns):

@ 35°F/1.7°C	@ 77°F/25°C	@ 100°F/38°C
50% RH		

To touch:	3 hours	1 hour	1 hour
To handle:	48 hours	4 hours	2 hours
To recoat: minimum:	16 hours	4 hours	2 hours
maximum:	1 year	1 year	1 year

### PRODUCT CHARACTERISTICS (CONT'D)

<b>Shelf Life:</b>	36 months, unopened Store indoors at 40°F (4.5°C) to 110°F (43°C).
<b>Flash Point:</b> <b>Reducer/Clean Up:</b>	91°F (33°C), TCC, mixed Reducer, R7K15 In California: Reducer R7K111 or Oxsol 100

### PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	84 mg loss
Accelerated Weathering-QUV <sup>1</sup>	ASTM D4587, QUV-A, 12,000 hours	Passes
Adhesion	ASTM D4541	1,037 psi
Corrosion Weathering <sup>1</sup>	ASTM D5894, 36 cycles, 12,000 hours	Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D610 per rusting
Nuclear Decontamination	ASTM D4256/ANSI N 5.12	99% Water Wash; 95% Overall
Direct Impact Resistance <sup>2</sup>	ASTM D2794 Modified	**120 in. lb.
Dry Heat Resistance	ASTM D2485	250°F (121°C)
Exterior Durability	1 year at 45° South	Excellent, chalks
Flexibility	ASTM D522, 180° bend, 3/4" mandrel	Passes
Fuel Contribution	NFPA 259	5764 btu/lb
Humidity Resistance	ASTM D4585, 6000 hours	No blistering, cracking, or rusting
Immersion	1 year fresh and salt water	Passes, no rusting, blistering, or loss of adhesion
Radiation Tolerance	ASTM D4082 / ANSI 5.12	Pass at 21 mils (525 microns)
Pencil Hardness	ASTM D3363	3H
Salt Fog Resistance <sup>1</sup>	ASTM B117, 6,500 hours	Rating 10 per ASTM D610 for rusting; Rating 9 per ASTM D1654 for corrosion
Slip Coefficient, Mill White*	AISC Specification for Structural Joints Using ASTM A325 or ASTM A490 Bolts	Class A, 0.36
Surface Burning	ASTM E84/NFPA 255	Flame Spread Index 20; Smoke Development Index 35 (at 18 mils or 450 microns)
Water Vapor Permeance	ASTM D1653, Method B	1.16 US perms

Epoxy coatings may darken or discolor following application and curing.

\*Refer to Slip Certification document

\*\* Performed on 1/16 inch blasted steel

Footnotes:

<sup>1</sup>Zinc Clad II Plus Primer

<sup>2</sup>Two coats of Macropoxy 646 Fast Cure Epoxy

### DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.



# Protective & Marine Coatings

Revised: April 15, 2016

# MACROPOXY® 646 FAST CURE EPOXY

PART A  
PART B

B58-600  
B58V600

SERIES  
HARDENER

## PRODUCT INFORMATION

4.53

### RECOMMENDED USES

- Marine applications
- Fabrication shops
- Pulp and paper mills
- Power plants
- Offshore platforms
- Nuclear Power Plants
- Nuclear fabrication shops
- Mill White and Black are acceptable for immersion use for salt water and fresh water, not acceptable for potable water
- Suitable for use in USDA inspected facilities
- Acceptable for use in Canadian Food Processing facilities, categories: D1, D2, D3 (Confirm acceptance of specific part numbers/rexes with your SW Sales Representative)
- Conforms to AWWA D102 OCS #5
- Conforms to MPI # 108
- This product meets specific design requirements for non-safety related nuclear plant applications in Level II, III and Balance of Plant, and DOE nuclear facilities\*.
- \* Nuclear qualifications are NRC license specific to the facility.
- Suitable for use in the Mining & Minerals Industry
- Acceptable for use over and/or under Loxon S1 and Loxon H1 Caulking

### RECOMMENDED SYSTEMS

Dry Film Thickness / ct.  
Mils (Microns)

#### Immersion and atmospheric:

##### Steel:

2 cts. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)

##### Concrete/Masonry, smooth:

2 cts. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)

##### Concrete Block:

1 ct. Kem Cati-Coat HS Epoxy 10.0-20.0 (250-500)  
Filler/Sealer

as needed to fill voids and provide a continuous substrate.

2 cts. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)

##### Atmospheric:

##### Steel:

(Shop applied system, new construction, AWWA D102, can also be used at 3 mils / 75 microns minimum dft when used as an intermediate coat as part of a multi-coat system)

1 ct. Macropoxy 646 Fast Cure Epoxy 3.0-6.0 (75-150)  
1-2 cts. of recommended topcoat

##### Steel:

1 ct. Recoatable Epoxy Primer 4.0-6.0 (100-150)  
2 cts. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)

##### Steel:

1 ct. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)  
1-2 cts. Acrolon 218 Polyurethane 3.0-6.0 (75-150)  
or Hi-Solids Polyurethane 3.0-5.0 (75-125)  
or Sherthane 2K Urethane 2.0-4.0 (50-100)  
or Hydrogloss 2.0-4.0 (50-100)

##### Steel:

2 cts. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)  
1-2 cts. Tile-Clad HS Epoxy 2.5-4.0 (63-100)

##### Steel:

1 ct. Zinc Clad II Plus 2.0-4.0 (50-100)  
1 ct. Macropoxy 646 Fast Cure Epoxy 5.0-10.0 (125-250)  
1-2 cts. Acrolon 218 Polyurethane 3.0-6.0 (75-150)

##### Steel:

1 ct. Zinc Clad III HS 3.0-5.0 (75-125)  
or Zinc Clad IV 3.0-5.0 (75-125)  
1 ct. Macropoxy 646 Fast Cure Epoxy 3.0-10.0 (75-250)  
1-2 cts. Acrolon 218 Polyurethane 3.0-6.0 (75-150)

##### Aluminum:

2 cts. Macropoxy 646 Fast Cure Epoxy 2.0-4.0 (50-100)

##### Galvanizing:

2 cts. Macropoxy 646 Fast Cure Epoxy 2.0-4.0 (50-100)

##### FIRETEX M89/02, M90, M90/02, and M93/02:

##### Steel & Galvanized Substrates being primed for FIRETEX only:

1 ct. Macropoxy 646 Fast Cure Epoxy 2.0-5.0 (50-125)

The systems listed above are representative of the product's use, other systems may be appropriate.

### SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel	
Atmospheric:	SSPC-SP2/3
Immersion:	SSPC-SP10/NACE 2, 2-3 mil (50-75 micron) profile
Aluminum:	SSPC-SP1
Galvanizing:	SSPC-SP1; See Surface Preparations section on page 3 for application of FIRETEX intumescent coating systems

#### Concrete & Masonry

Atmospheric:	SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3
Immersion:	SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI No. 310.2R, CSP 2-4

### Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	3
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted C St 2	C St 2	SP 2	-
	Pitted & Rusted D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted C St 3	C St 3	SP 3	-
	Pitted & Rusted D St 3	D St 3	SP 3	-

### TINTING

Tint Part A with Maxitoners at 150% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

Tinting is not recommended for immersion service.

### APPLICATION CONDITIONS

Temperature: 35°F (1.7°C) minimum, 120°F (49°C) maximum (air and surface)  
40°F (4.5°C) minimum, 120°F (49°C) maximum (material)

Relative humidity: At least 5°F (2.8°C) above dew point  
85% maximum

Refer to product Application Bulletin for detailed application information.

### ORDERING INFORMATION

Packaging:  
Part A: 1 gallon (3.78L) and 5 gallon (18.9L) containers  
Part B: 1 gallon (3.78L) and 5 gallon (18.9L) containers

Weight: 12.9 ± 0.2 lb/gal ; 1.55 Kg/L  
mixed, may vary by color

### SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

### WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



# Protective & Marine Coatings

Revised: April 15, 2016

# MACROPOXY® 646 FAST CURE EPOXY

PART A  
PART B

B58-600  
B58V600

SERIES  
HARDENER

## APPLICATION BULLETIN

4.53

### SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

#### Iron & Steel, Atmospheric Service:

Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel within 8 hours or before flash rusting occurs.

#### Iron & Steel, Immersion Service:

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2-3 mils / 50-75 microns). Remove all weld spatter and round all sharp edges by grinding. Prime any bare steel the same day as it is cleaned.

#### Aluminum

Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1.

#### Galvanized Steel

Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1 (recommended solvent is VM&P Naphtha). When weathering is not possible, or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test patch. Allow paint to dry at least one week before testing adhesion. If adhesion is poor, brush blasting per SSPC-SP7 is necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day as cleaned. In preparing galvanized steel substrates for the application of FIRE-TEX intumescent coating systems, Surface Preparation Specification SSPC-SP 16 must be followed obtaining a surface profile of minimum 1.5 mils (38 microns). Optimum surface profile will not exceed 2.0 mils (50 microns).

#### Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910.

#### Concrete, Immersion Service:

For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2R, CSP 2-4.

#### Follow the standard methods listed below when applicable:

ASTM D4258 Standard Practice for Cleaning Concrete.

ASTM D4259 Standard Practice for Abrading Concrete.

ASTM D4260 Standard Practice for Etching Concrete.

ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.

SSPC-SP 13/Nace 6 Surface Preparation of Concrete.

ICRI No. 310.2R Concrete Surface Preparation.

#### Previously Painted Surfaces

If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this product attacks the previous finish, removal of the previous coating may be necessary. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

#### Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	D St 3	D St 3	SP 3	-

### APPLICATION CONDITIONS

Temperature: 35°F (1.7°C) minimum, 120°F (49°C) maximum (air and surface)  
40°F (4.5°C) minimum, 120°F (49°C) maximum (material)  
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

### APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

**Reducer/Clean Up** ..... Reducer R7K15  
In California ..... Reducer R7K111

#### Airless Spray

Pump ..... 30:1  
Pressure ..... 2800 - 3000 psi  
Hose ..... 1/4" ID  
Tip ..... 0.17" - .023"  
Filter ..... 60 mesh  
Reduction ..... As needed up to 10% by volume

#### Conventional Spray

Gun ..... DeVilbiss MBC-510  
Fluid Tip ..... E  
Air Nozzle ..... 704  
Atomization Pressure ..... 60-65 psi  
Fluid Pressure ..... 10-20 psi  
Reduction ..... As needed up to 10% by volume  
Requires oil and moisture separators

#### Brush

Brush ..... Nylon/Polyester or Natural Bristle  
Reduction ..... As needed up to 10% by volume

#### Roller

Cover ..... 3/8" woven with solvent resistant core  
Reduction ..... As needed up to 10% by volume

#### Plural Component Spray

...Acceptable  
Refer to April 2010 Technical Bulletin - "Application Guidelines for Macropoxy 646 Fast Cure Epoxy & Recoatable Epoxy Primer Utilizing Plural Component Equipment"  
If specific application equipment is not listed above, equivalent equipment may be substituted.



# Protective & Marine Coatings

Revised: April 15, 2016

# MACROPOXY® 646 FAST CURE EPOXY

PART A  
PART B

B58-600  
B58V600

SERIES  
HARDENER

## APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine one part by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation. Allow the material to sweat-in as indicated prior to application. Re-stir before using.

If reducer solvent is used, add only after both components have been thoroughly mixed, after sweat-in.

Apply paint at the recommended film thickness and spreading rate as indicated below:

### Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	7.0 (175)	13.5 (338)
Dry mils (microns)	5.0* (125)	10.0* (250)
~Coverage sq ft/gal (m²/L)	116 (2.8)	232 (5.7)

Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft

\*May be applied at 3.0-10.0 mils (75-250 microns) dft in a multi-coat system. Refer to Recommended Systems and Performance Tips Sections.

*NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.*

### Drying Schedule @ 7.0 mils wet (175 microns):

	@ 35°F/1.7°C 50% RH	@ 77°F/25°C	@ 100°F/38°C
To touch:	4-5 hours	2 hours	1.5 hours
To handle:	48 hours	8 hours	4.5 hours
To recoat:			
minimum:	48 hours	8 hours	4.5 hours
maximum:	1 year	1 year	1 year
To cure:			
Service:	10 days	7 days	4 days
Immersion:	14 days	7 days	4 days

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Paint temperature must be at least 40°F (4.5°C) minimum.

Pot Life:	10 hours	4 hours	2 hours
Sweat-in-time:	30 minutes	30 minutes	15 minutes

### When used as an intermediate coat as part of a multi-coat system:

#### Drying Schedule @ 5.0 mils wet (125 microns):

	@ 35°F/1.7°C 50% RH	@ 77°F/25°C	@ 100°F/38°C
To touch:	3 hours	1 hour	1 hour
To handle:	48 hours	4 hours	2 hours
To recoat:			
minimum:	16 hours	4 hours	2 hours
maximum:	1 year	1 year	1 year

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

## CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer R7K15. Clean tools immediately after use with Reducer R7K15. In California use Reducer R7K111. Follow manufacturer's safety recommendations when using any solvent.

## APPLICATION BULLETIN

4.53

## PERFORMANCE TIPS

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer R7K15. In California use Reducer R7K111.

Tinting is not recommended for immersion service.

Use only Mill White and Black for immersion service.

Insufficient ventilation, incomplete mixing, miscatalyzed, and external heaters may cause premature yellowing.

Excessive film build, poor ventilation, and cool temperatures may cause solvent entrapment and premature coating failure.

Quik-Kick Epoxy Accelerator is acceptable for use. See data page 4.99 for details.

When coating over aluminum and galvanizing, recommended dft is 2-4 mils (50-100 microns).

Acceptable for Concrete Floors.

Can be used as a metalizing sealer. Consult Technical Bulletin - Sealers for Thermal Spray Metalizing, or your local Sherwin-Williams representative.

Refer to Product Information sheet for additional performance characteristics and properties.

## SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

## DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

## WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



# PRO

## INDUSTRIAL™

113.68

### WATERBASED ACROLON™ 100

### WATERBASED URETHANE

As of 10/09/2015. Complies with:			
OTC	Yes	LEED® 09 CI	Yes
SCAQMD	Yes	LEED® 09 NC	Yes
CARB	Yes	LEED® 09 CS	Yes
CARB SCM 2007	Yes	CalGreen 2013	Yes
MPI		NGBS	Yes

#### CHARACTERISTICS

**Pro Industrial Water Based Acrolon 100** is an advanced technology, <100 g/L VOC, waterbased, acrylic urethane. It provides performance properties comparable to premium quality solvent based urethanes. This is a high gloss, abrasion resistant urethane that has excellent weathering properties.

- Can be applied directly to water based and solvent based organic zinc rich primers
- Suitable for use in USDA inspected facilities
- Acceptable for use in high performance architectural applications

**Color:** many colors  
**Recommended Spread Rate per coat:**

Wet mils:	4.0 - 8.0
Dry mils:	1.8 - 3.6
Coverage:	200 - 400 sq ft/gal

Approximate spreading rates are calculated on volume solids and do not include any application loss. Note: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

#### Drying Time @ 5.0 mils wet 50% RH:

    @ 55°F   @ 77°F   @ 120°F

To touch: 3 hr   1.5 hr   45 min

To handle: 12 hrs   6 hrs   2 hrs

To recoat:

    minimum: 16 hrs   8 hrs   2-4 hrs

    maximum:   3 months

To Cure: 14 Days   10 Days   2 days

Pot Life: 2.5 hrs   2 hrs   45 min

Sweat-in-Time:   None

Drying time is temperature, humidity, and film thickness dependent.

**Finish:** 80+@ 60° High Gloss

**Flash Point:** 105°F TCC catalyzed

**Shelf Life:** 24 months, unopened

    Store indoors at 40°F to 100°F.

#### Tinting part A with CCE or Envirotoner:

Use the 100% tint strength formula pages. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

**Extra White B65W00721/B65V00720**  
**VOC (less exempt solvents):** Mixed/Unreduced:

97 g/L - 0.81 lb/gal

As per 40 CFR 59.406 and SOR/2009-264, s.12

**Mix Ratio:** 4:1 by volume

**Volume Solids:** 45 ± 2%

**Weight Solids:** 52 ± 2%

**Weight per Gallon:** 9.54 lb

#### RECOMMENDED SYSTEMS

##### Steel:

1 ct. Pro Industrial Pro-Cryl Primer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Steel:

1 ct. Zinc-Clad IV Primer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Steel:

1 ct. Zinc-Clad IV Primer

1 ct. Macropoxy 646-100

1-2cts. Pro Industrial Water Based Acrolon 100

##### Aluminum:

1 ct. DTM Wash Primer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Concrete Block (CMU):

1 ct. Heavy Duty Blockfiller

1-2cts. Pro Industrial Water Based Acrolon 100

##### Concrete:

(high performance) 1 ct. Kem Cati-Coat HS Epoxy Filler/Sealer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Concrete/Masonry:

1 ct. Loxon Concrete & Masonry Primer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Drywall:

1 ct. ProMar 200 Zero VOC Primer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Galvanizing:

1 ct. DTM Wash Primer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Pre-Finished Siding:(Baked-on finishes)

1 ct. Bond-Plex WB Acrylic

1-2cts. Pro Industrial Water Based Acrolon 100

The systems listed above are representative of the product's use, other systems may be appropriate.

#### System Tested: (\*unless otherwise indicated below)

##### Substrate: Steel

##### Surface Preparation\*: SSPC-SP10

1 ct. Waterbased Tile-Clad Primer @ 4.0 mils (100 microns) dft

1 ct. Pro Industrial Waterbased Acrolon 100 @ 3.0 mils (75 microns) dft

##### Adhesion:

Method: ASTM D4541

Result: 1080 psi

##### Corrosion Weathering:

Method: ASTM D5894, 10 cycles

3360 hours,

Result: Rating 10, per ASTM D610 for rusting, no more than 1/8" rust creepage at scribe

##### Direct Impact Resistance:

Method: ASTM D2794

Result: >160 in. lb

##### Flexibility:

Method: ASTM D522, 180° bend, 1/8" mandrel

Result: Pass

##### Pencil Hardness:

Method: ASTM D3363

Result: 3H

##### Salt Fog Resistance: System Tested

(Zinc Clad IV, 2 coats Water Based Acrolon 100)

Method: ASTM B117, 4000 hours

Rating 9 per ASTM D610 for rusting

##### Scrub Resistance:

Method: ASTM D2486, 5000+ cycles, with no visible wear

##### Accelerated Weathering - QUV:

Method: ASTM D4587, QUV-A, 2000 hours

Result: Passes

# PRO INDUSTRIAL WATER BASED ACROLON 100



**SHERWIN-WILLIAMS**

## SURFACE PREPARATION

**WARNING!** Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at **1-800-424-LEAD** (in US) or contact your local health authority.

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

**Do not use hydrocarbon solvents for cleaning.**

**Iron & Steel** - Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. For better performance, use Near White Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

**Aluminum** - Remove all oil, grease, dirt, oxide and other foreign material per SSPC-SP1. Primer required.

**Galvanizing** - Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1. When weathering is not possible, or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test patch. Allow paint to dry at least one week before testing adhesion. If adhesion is poor, brush blasting per SSPC-SP7 is necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day as cleaned. Primer required.

**Concrete and Masonry** - For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R , CSP 1-3. Surfaces should be thoroughly cleaned and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Surface temperatures must be at least 55°F before filling. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids. Primer required.

**Pre-Finished Siding: (Fluorocarbon, Silicone Polyester, and Polyester Polymers)** Remove oil, grease, dirt, oxides, and other contaminants from the surface by cleaning per SSPC-SP1 or water blasting per NACE Standard RP-01-72 (caution: excessive blasting pressure may cause warping, use caution). Always check for compatibility of the previously painted surface with the new coating by applying a test patch of 2 - 3 square feet. Allow to dry thoroughly for 1 week before checking adhesion. Use recommended primer.

## APPLICATION PROCEDURES

**Mix separate components thoroughly with low speed agitation before use. Make certain no pigment remains on the bottom of the can. Then combine 4 parts by volume of Part A with 1 part by volume of Part B. Mix thoroughly with low speed agitation. Reduce 5% - 15% by volume with water for brush and roll application.**

Apply paint at the recommended film thickness and spreading rate as indicated on front page. Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

## SAFETY PRECAUTIONS

Refer to the SDS sheets before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

## PERFORMANCE TIPS

Stripe coat crevices, welds, and sharp angles to prevent early failure in these areas.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

## APPLICATION

**Temperature:** 55°F(13°C) minimum  
120°F (49°C) maximum  
(Air, surface, and material)  
At least 5°F (2.8°C) above dew point

**Relative humidity:** 85% maximum

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compatible with the existing environmental and application conditions. Reduction over 15% of material can affect film build, appearance, and adhesion.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Clear Tint Base (B65T00724) can be used as clear coat

**Reducer:** Water

**Airless Spray**

Unit ..... 30:1 Pump

Pressure ..... 2700-3000 psi

Hose ..... 1/4" ID

Tip ..... .013" - .015"

Filter ..... 60 mesh

Reduction ....As needed up to 15% by volume

**Conventional Spray**

Gun ..... DeVilbiss JGA

Fluid Nozzle ..... E

Air Nozzle ..... 765

Atomization Pressure ..... 45-55 PSI

Fluid Pressure ..... 10-20 PSI

Reduction ....As needed up to 15% by volume

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with water.

**Brush** ..... Nylon / polyester

Reduction ....As needed up to 15% by volume  
Water, 5-15% minimum reduction required for brush and roll

**Roller** ..... 3/8" woven

Reduction ....As needed up to 15% by volume  
Water, 5-15% minimum reduction required for brush and roll.

If specific application equipment is not listed above, equivalent equipment may be substituted.

## CLEANUP INFORMATION

Clean spills and spatters immediately with soap and warm water. Clean hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with compliant cleanup solvent to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using solvents.

KOR,FRC,SP



# PRO

## INDUSTRIAL™

113.68

### WATERBASED ACROLON™ 100

### WATERBASED URETHANE

As of 10/09/2015. Complies with:			
OTC	Yes	LEED® 09 CI	Yes
SCAQMD	Yes	LEED® 09 NC	Yes
CARB	Yes	LEED® 09 CS	Yes
CARB SCM 2007	Yes	CalGreen 2013	Yes
MPI		NGBS	Yes

#### CHARACTERISTICS

**Pro Industrial Water Based Acrolon 100** is an advanced technology, <100 g/L VOC, waterbased, acrylic urethane. It provides performance properties comparable to premium quality solvent based urethanes. This is a high gloss, abrasion resistant urethane that has excellent weathering properties.

- Can be applied directly to water based and solvent based organic zinc rich primers
- Suitable for use in USDA inspected facilities
- Acceptable for use in high performance architectural applications

**Color:** many colors  
**Recommended Spread Rate per coat:**

Wet mils:	4.0 - 8.0
Dry mils:	1.8 - 3.6
Coverage:	200 - 400 sq ft/gal

Approximate spreading rates are calculated on volume solids and do not include any application loss. Note: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

#### Drying Time @ 5.0 mils wet 50% RH:

    @ 55°F   @ 77°F   @ 120°F

To touch: 3 hr   1.5 hr   45 min

To handle: 12 hrs   6 hrs   2 hrs

To recoat:  
    minimum: 16 hrs   8 hrs   2-4 hrs  
    maximum:            3 months

To Cure: 14 Days   10 Days   2 days

Pot Life: 2.5 hrs   2 hrs   45 min

Sweat-in-Time: None

Drying time is temperature, humidity, and film thickness dependent.

**Finish:** 80+@ 60° High Gloss

**Flash Point:** 105°F TCC catalyzed

**Shelf Life:** 24 months, unopened

    Store indoors at 40°F to 100°F.

#### Tinting part A with CCE or Envirotoner:

Use the 100% tint strength formula pages. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

#### Extra White B65W00721/B65V00720

**VOC (less exempt solvents):** Mixed/Unreduced:  
    97 g/L - 0.81 lb/gal

As per 40 CFR 59.406 and SOR/2009-264, s.12

**Mix Ratio:** 4:1 by volume

**Volume Solids:** 45 ± 2%

**Weight Solids:** 52 ± 2%

**Weight per Gallon:** 9.54 lb

#### RECOMMENDED SYSTEMS

##### Steel:

1 ct. Pro Industrial Pro-Cryl Primer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Steel:

1 ct. Zinc-Clad IV Primer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Steel:

1 ct. Zinc-Clad IV Primer

1 ct. Macropoxy 646-100

1-2cts. Pro Industrial Water Based Acrolon 100

##### Aluminum:

1 ct. DTM Wash Primer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Concrete Block (CMU):

1 ct. Heavy Duty Blockfiller

1-2cts. Pro Industrial Water Based Acrolon 100

##### Concrete:

(high performance)  
1 ct. Kem Cati-Coat HS Epoxy Filler/Sealer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Concrete/Masonry:

1 ct. Loxon Concrete & Masonry Primer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Drywall:

1 ct. ProMar 200 Zero VOC Primer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Galvanizing:

1 ct. DTM Wash Primer

1-2cts. Pro Industrial Water Based Acrolon 100

##### Pre-Finished Siding:

(Baked-on finishes)  
1 ct. Bond-Plex WB Acrylic

1-2cts. Pro Industrial Water Based Acrolon 100

The systems listed above are representative of the product's use, other systems may be appropriate.

#### System Tested: (\*unless otherwise indicated below)

##### Substrate: Steel

##### Surface Preparation\*: SSPC-SP10

1 ct. Waterbased Tile-Clad Primer @ 4.0 mils (100 microns) dft

1 ct. Pro Industrial Waterbased Acrolon 100 @ 3.0 mils (75 microns) dft

##### Adhesion:

Method: ASTM D4541

Result: 1080 psi

##### Corrosion Weathering:

Method: ASTM D5894, 10 cycles

3360 hours,

Result: Rating 10, per ASTM D610  
for rusting, no more than  
1/8" rust creepage at scribe

##### Direct Impact Resistance:

Method: ASTM D2794

Result: >160 in. lb

##### Salt Fog Resistance: System Tested

(Zinc Clad IV, 2 coats Water Based Acrolon 100)

Method: ASTM B117, 4000 hours

Rating 9 per ASTM D610 for  
rusting

##### Scrub Resistance:

Method: ASTM D2486, 5000+ cycles,  
with no visible wear

##### Accelerated Weathering - QUV:

Method: ASTM D4587, QUV-A,  
2000 hours

Result: Passes

##### Flexibility:

Method: ASTM D522, 180° bend,  
1/8" mandrel

Result: Pass

##### Pencil Hardness:

Method: ASTM D3363

Result: 3H

# PRO INDUSTRIAL WATER BASED ACROLON 100



**SHERWIN-WILLIAMS**

## SURFACE PREPARATION

**WARNING!** Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at **1-800-424-LEAD** (in US) or contact your local health authority.

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

**Do not use hydrocarbon solvents for cleaning.**

**Iron & Steel** - Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. For better performance, use Near White Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

**Aluminum** - Remove all oil, grease, dirt, oxide and other foreign material per SSPC-SP1. Primer required.

**Galvanizing** - Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1. When weathering is not possible, or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test patch. Allow paint to dry at least one week before testing adhesion. If adhesion is poor, brush blasting per SSPC-SP7 is necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day as cleaned. Primer required.

**Concrete and Masonry** - For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R , CSP 1-3. Surfaces should be thoroughly cleaned and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Surface temperatures must be at least 55°F before filling. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids. Primer required.

**Pre-Finished Siding: (Fluorocarbon, Silicone Polyester, and Polyester Polymers)** Remove oil, grease, dirt, oxides, and other contaminants from the surface by cleaning per SSPC-SP1 or water blasting per NACE Standard RP-01-72 (caution: excessive blasting pressure may cause warping, use caution). Always check for compatibility of the previously painted surface with the new coating by applying a test patch of 2 - 3 square feet. Allow to dry thoroughly for 1 week before checking adhesion. Use recommended primer.

## APPLICATION PROCEDURES

**Mix separate components thoroughly with low speed agitation before use. Make certain no pigment remains on the bottom of the can. Then combine 4 parts by volume of Part A with 1 part by volume of Part B. Mix thoroughly with low speed agitation. Reduce 5% - 15% by volume with water for brush and roll application.**

Apply paint at the recommended film thickness and spreading rate as indicated on front page. Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

## SAFETY PRECAUTIONS

Refer to the SDS sheets before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

## PERFORMANCE TIPS

Stripe coat crevices, welds, and sharp angles to prevent early failure in these areas.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

## APPLICATION

**Temperature:** 55°F(13°C) minimum  
120°F (49°C) maximum  
(Air, surface, and material)  
At least 5°F (2.8°C) above dew point

**Relative humidity:** 85% maximum

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compatible with the existing environmental and application conditions. Reduction over 15% of material can affect film build, appearance, and adhesion.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Clear Tint Base (B65T00724) can be used as clear coat

**Reducer:** Water

**Airless Spray**

Unit ..... 30:1 Pump

Pressure ..... 2700-3000 psi

Hose ..... 1/4" ID

Tip ..... .013" - .015"

Filter ..... 60 mesh

Reduction ....As needed up to 15% by volume

**Conventional Spray**

Gun ..... DeVilbiss JGA

Fluid Nozzle ..... E

Air Nozzle ..... 765

Atomization Pressure ..... 45-55 PSI

Fluid Pressure ..... 10-20 PSI

Reduction ....As needed up to 15% by volume

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with water.

**Brush** ..... Nylon / polyester

Reduction ....As needed up to 15% by volume  
Water, 5-15% minimum reduction required for brush and roll

**Roller** ..... 3/8" woven

Reduction ....As needed up to 15% by volume  
Water, 5-15% minimum reduction required for brush and roll.

If specific application equipment is not listed above, equivalent equipment may be substituted.

## CLEANUP INFORMATION

Clean spills and spatters immediately with soap and warm water. Clean hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with compliant cleanup solvent to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using solvents.

KOR,FRC,SP

# **Material Safety Data Sheets**

# MATERIAL SAFETY DATA SHEET

B58T101  
10 00

DATE OF PREPARATION  
May 28, 2014

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

B58T101

### PRODUCT NAME

MACROPOXY® 920 Pre-Prime Penetrating Epoxy Pre-Primer (Part A), Transparent

### MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY  
101 Prospect Avenue N.W.  
Cleveland, OH 44115

### Telephone Numbers and Websites

Product Information	(800) 524-5979 www.sherwin-williams.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300 <i>*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)</i>

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
19	100-51-6	Phenylmethanol	ACGIH TLV OSHA PEL	Not Available Not Available 0.15 mm
31	26761-45-5	Alkyl Glycidyl Ester	ACGIH TLV OSHA PEL	Not Available Not Available 0.11 mm
50	25068-38-6	Epoxy Polymer	ACGIH TLV OSHA PEL	Not Available Not Available

## SECTION 3 — HAZARDS IDENTIFICATION

### ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.

EYE or SKIN contact with the product, vapor or spray mist.

### EFFECTS OF OVEREXPOSURE

EYES: Irritation.

SKIN: Prolonged or repeated exposure may cause irritation.

INHALATION: Irritation of the upper respiratory system.

In a confined area vapors in high concentration may cause headache, nausea or dizziness.

Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:

- the nervous system

### HMIS Codes

Health	2*
Flammability	1
Reactivity	0

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

May cause allergic skin reaction in susceptible persons or skin sensitization.

### CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

## SECTION 4 — FIRST AID MEASURES

**EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.

**SKIN:** Wash affected area thoroughly with soap and water.  
If irritation persists or occurs later, get medical attention.  
Remove contaminated clothing and launder before re-use.

**INHALATION:** If affected, remove from exposure. Restore breathing. Keep warm and quiet.

**INGESTION:** Do not induce vomiting. Get medical attention immediately.

## SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
> 200 °F PMCC	Not Applicable	Not Applicable	Not Applicable

### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.  
During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

### SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.  
Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

## SECTION 6 — ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.  
Remove with inert absorbent.

## SECTION 7 — HANDLING AND STORAGE

### STORAGE CATEGORY

DOL Storage Class IIIB

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally.  
Keep out of the reach of children.

## SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

### PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.  
Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.  
Wash hands after using.  
This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).

### VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

### RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.  
When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

### PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

### EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

### OTHER PROTECTIVE EQUIPMENT

Use of barrier cream on exposed skin is recommended.

### OTHER PRECAUTIONS

This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

## SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	8.94 lb/gal	1071 g/l
SPECIFIC GRAVITY	1.08	
BOILING POINT	396 - 491 °F	202 - 255 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	53%	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	Not Available	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
4.44 lb/gal	533 g/l	Less Water and Federally Exempt Solvents
4.44 lb/gal	533 g/l	Emitted VOC

## SECTION 10 — STABILITY AND REACTIVITY

### STABILITY — Stable

### CONDITIONS TO AVOID

None known.

### INCOMPATIBILITY

None known.

### HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

### HAZARDOUS POLYMERIZATION

Will not occur

## SECTION 11 — TOXICOLOGICAL INFORMATION

### CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

### TOXICOLOGY DATA

CAS No.	Ingredient Name	LC50 RAT	4HR	Not Available
100-51-6	Phenylmethanol	LD50 RAT		Not Available
26761-45-5	Alkyl Glycidyl Ester	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
25068-38-6	Epoxy Polymer	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available

## SECTION 12 — ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

No data available.

## SECTION 13 — DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL METHOD

Waste from this product is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

## SECTION 14 — TRANSPORT INFORMATION

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

### US Ground (DOT)

Not Regulated for Transportation.

### Canada (TDG)

Not Regulated for Transportation.

**IMO**

Not Regulated for Transportation.

**IATA/ICAO**

Not Regulated for Transportation.

## SECTION 15 — REGULATORY INFORMATION

### SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
---------	-------------------	---------	-----------

No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

### TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

## SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

## MATERIAL SAFETY DATA SHEET

B58V10

08 00

## =====

## Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER	DATE OF PREPARATION	HMIS CODES
B58V10	12-MAY-11	Health 3* Flammability 1 Reactivity 0

## PRODUCT NAME

MACROPOXY® 920 Pre-Prime Penetrating Epoxy Pre-Primer (Part B), Hardener

## MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY  
 101 Prospect Avenue N.W.  
 Cleveland, OH 44115

## TELEPHONE NUMBERS and WEBSITES

## Product Information

www.sherwin-williams.com

## Regulatory Information

(216) 566-2902 www.paintdocs.com

## Medical Emergency

(216) 566-2917

Transportation Emergency	for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)
(800) 424-9300	

## =====

## Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS	VAPOR PRESSURE
5	100-51-6	Phenylmethanol	ACGIH TLV Not Available OSHA PEL Not Available	0.15 mm
10	90-72-2	Tri(dimethylaminomethyl)phenol	ACGIH TLV Not Available OSHA PEL Not Available	
3	107-15-3	Ethylenediamine	ACGIH TLV 10 ppm (Skin) OSHA PEL Not Available	10.7 mm
80	Proprietary	Ketamine	ACGIH TLV Not Available OSHA PEL Not Available	

This product releases Methyl Isobutyl Ketone during use.

16	108-10-1	Methyl Isobutyl Ketone	ACGIH TLV 50 ppm ACGIH TLV 75 ppm STEL OSHA PEL 50 ppm OSHA PEL 75 ppm STEL	16 mm
----	----------	------------------------	--	-------

## =====

## Section 3 -- HAZARDS IDENTIFICATION

## -----

## ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.

EYE or SKIN contact with the product, vapor or spray mist.

=====  
EFFECTS OF OVEREXPOSURE

EYES: Causes burns.

SKIN: Causes burns.

INHALATION: Severe irritation of the upper respiratory system.

In a confined area vapors in high concentration may cause headache, nausea or dizziness.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to nervous and urinary systems.

## SIGNS AND SYMPTOMS OF OVEREXPOSURE

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

## MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

May cause allergic skin reaction in susceptible persons or skin sensitization.

## CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

=====

## Section 4 -- FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes.  
Get medical attention IMMEDIATELY.

SKIN: Wash affected area thoroughly with soap and water.  
If irritation persists or occurs later, get medical attention.

INHALATION: Remove contaminated clothing and launder before re-use.  
If affected, remove from exposure. Restore breathing.  
Keep warm and quiet.

INGESTION: Do not induce vomiting.  
Get medical attention immediately.

=====

## Section 5 -- FIRE FIGHTING MEASURES

FLASH POINT LEL UEL  
>200 F PMCC N.A. N.A.

## FLAMMABILITY CLASSIFICATION

Not Applicable

## EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

## UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

## SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

=====

## Section 6 -- ACCIDENTAL RELEASE MEASURES

## STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

---

Section 7 -- HANDLING AND STORAGE

---

STORAGE CATEGORY

DOL Storage Class IIIB

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

---

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

---

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.

Do not get in eyes or on skin. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits.

Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

To prevent skin contact, wear gloves which are recommended by glove supplier for protection against materials in Section 2.

EYE PROTECTION

To prevent eye contact, wear safety spectacles with unperforated sideshields.

OTHER PROTECTIVE EQUIPMENT

Use barrier cream on exposed skin. Wear long sleeved clothing.

OTHER PRECAUTIONS

This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

---

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

---

PRODUCT WEIGHT	7.26	lb/gal	869	g/l
SPECIFIC GRAVITY	0.87			
BOILING POINT	243 - 405	F	117 - 207	C
MELTING POINT			Not Available	
VOLATILE VOLUME	6	%		
EVAPORATION RATE			Slower than ether	
VAPOR DENSITY			Heavier than air	
SOLUBILITY IN WATER			N.A.	
VOLATILE ORGANIC COMPOUNDS			(VOC Theoretical - As Packaged)	
0.68	lb/gal	82	g/l	Less Water and Federally Exempt Solvents

---

Section 10 -- STABILITY AND REACTIVITY

---

STABILITY -- Stable

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

---

Section 11 -- TOXICOLOGICAL INFORMATION

---

CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

---

TOXICOLOGY DATA

CAS No.      Ingredient Name

---

100-51-6	Phenylmethanol	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
90-72-2	Tri(dimethylaminomethyl)phenol	LC50	RAT	4HR	Not Available
		LD50	RAT		1653 mg/kg
107-15-3	Ethylenediamine	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
Proprietary	Ketamine	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
108-10-1	Methyl Isobutyl Ketone	LC50	RAT	4HR	Not Available
		LD50	RAT		2080 mg/kg

---

Section 12 -- ECOLOGICAL INFORMATION

---

No data available.

---

Section 13 -- DISPOSAL CONSIDERATIONS

---

WASTE DISPOSAL METHOD

Waste from this product is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

---

Section 14 -- TRANSPORT INFORMATION

---

US Ground (DOT)

Not Regulated for Transportation.

Canada (TDG)

Not Regulated for Transportation.

IMO

Not Regulated for Transportation.

## =====

## Section 15 -- REGULATORY INFORMATION

## -----

## SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT
108-10-1	Methyl Isobutyl Ketone (released during use)	16

## CALIFORNIA PROPOSITION 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

## TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

## =====

## Section 16 -- OTHER INFORMATION

-----

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

# MATERIAL SAFETY DATA SHEET

B58W610  
25 00

DATE OF PREPARATION  
Apr 6, 2016

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

B58W610

### PRODUCT NAME

MACROPOXY® 646 Fast Cure Epoxy Coating (Part A), Mill White

### MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY  
101 Prospect Avenue N.W.  
Cleveland, OH 44115

### Telephone Numbers and Websites

Product Information	(800) 524-5979 www.sherwin-williams.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300 <i>*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)</i>

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
3	100-41-4	Ethylbenzene	ACGIH TLV OSHA PEL OSHA PEL	20 PPM 100 PPM 125 PPM STEL
15	1330-20-7	Xylene	ACGIH TLV ACGIH TLV OSHA PEL OSHA PEL	100 PPM 150 PPM STEL 100 PPM 150 PPM STEL
10	68410-23-1	Polyamide	ACGIH TLV OSHA PEL	Not Available Not Available
9	14807-96-6	Talc	ACGIH TLV OSHA PEL	2 mg/m <sup>3</sup> as Resp. Dust 2 mg/m <sup>3</sup> as Resp. Dust
31	13463-67-7	Titanium Dioxide	ACGIH TLV OSHA PEL OSHA PEL	10 mg/m <sup>3</sup> as Dust 10 mg/m <sup>3</sup> Total Dust 5 mg/m <sup>3</sup> Respirable Fraction

## SECTION 3 — HAZARDS IDENTIFICATION

### ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.

EYE or SKIN contact with the product, vapor or spray mist.

### EFFECTS OF OVEREXPOSURE

EYES: Causes burns.

SKIN: Causes burns.

INHALATION: Irritation of the upper respiratory system.

### HMIS Codes

Health	3*
Flammability	3
Reactivity	0

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:

- the liver
- the urinary system
- the reproductive system

**SIGNS AND SYMPTOMS OF OVEREXPOSURE**

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.  
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

May cause allergic skin reaction in susceptible persons or skin sensitization.

**CANCER INFORMATION**

For complete discussion of toxicology data refer to Section 11.

**SECTION 4 — FIRST AID MEASURES**

**EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention **IMMEDIATELY**.

**SKIN:** Wash affected area thoroughly with soap and water.

If irritation persists or occurs later, get medical attention.

Remove contaminated clothing and launder before re-use.

**INHALATION:** If affected, remove from exposure. Restore breathing. Keep warm and quiet.

**INGESTION:** Do not induce vomiting. Get medical attention immediately.

**SECTION 5 — FIRE FIGHTING MEASURES**

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
85 °F PMCC	1.0	7.0	RED LABEL -- Flammable, Flash below 100 °F (38 °C)

**EXTINGUISHING MEDIA**

Carbon Dioxide, Dry Chemical, Foam

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

Closed containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

**SPECIAL FIRE FIGHTING PROCEDURES**

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

**SECTION 6 — ACCIDENTAL RELEASE MEASURES****STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

**SECTION 7 — HANDLING AND STORAGE****STORAGE CATEGORY**

DOL Storage Class IC

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**

Contents are FLAMMABLE. Keep away from heat, sparks, and open flame.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally.

Keep out of the reach of children.

**SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION****PRECAUTIONS TO BE TAKEN IN USE**

Use only with adequate ventilation.

Do not get in eyes or on skin. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).

**VENTILATION**

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

**RESPIRATORY PROTECTION**

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

**PROTECTIVE GLOVES**

To prevent skin contact, wear gloves which are recommended by glove supplier for protection against materials in Section 2.

**EYE PROTECTION**

To prevent eye contact, wear safety spectacles with unperforated sideshields.

**OTHER PROTECTIVE EQUIPMENT**

Use barrier cream on exposed skin.

**OTHER PRECAUTIONS**

This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

<b>PRODUCT WEIGHT</b>	12.19 lb/gal	1460 g/l
<b>SPECIFIC GRAVITY</b>	1.47	
<b>BOILING POINT</b>	277 - 292 °F	136 - 144 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	29%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
2.11 lb/gal	253 g/l	Less Water and Federally Exempt Solvents
2.11 lb/gal	253 g/l	Emitted VOC

**SECTION 10 — STABILITY AND REACTIVITY****STABILITY — Stable****CONDITIONS TO AVOID**

None known.

**INCOMPATIBILITY**

None known.

**HAZARDOUS DECOMPOSITION PRODUCTS**

By fire: Carbon Dioxide, Carbon Monoxide

**HAZARDOUS POLYMERIZATION**

Will not occur

**SECTION 11 — TOXICOLOGICAL INFORMATION****CHRONIC HEALTH HAZARDS**

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.

IARC's Monograph No. 93 reports there is sufficient evidence of carcinogenicity in experimental rats exposed to titanium dioxide but inadequate evidence for carcinogenicity in humans and has assigned a Group 2B rating. In addition, the IARC summary concludes, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium is bound to other materials, such as paint."

**TOXICOLOGY DATA**

<b>CAS No.</b>	<b>Ingredient Name</b>			
100-41-4	Ethylbenzene	LC50 RAT LD50 RAT	4HR	Not Available 3500 mg/kg
1330-20-7	Xylene	LC50 RAT LD50 RAT	4HR	5000 ppm 4300 mg/kg
68410-23-1	Polyamide	LC50 RAT LD50 RAT	4HR	Not Available Not Available
14807-96-6	Talc	LC50 RAT LD50 RAT	4HR	Not Available Not Available
13463-67-7	Titanium Dioxide	LC50 RAT LD50 RAT	4HR	Not Available Not Available

## SECTION 12 — ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

No data available.

## SECTION 13 — DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

## SECTION 14 — TRANSPORT INFORMATION

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

### US Ground (DOT)

5 Liters (1.3 Gallons) and Less may be Classed as LTD. QTY. (PAINT OR RELATED).

Larger Containers are Regulated as:

UN1263, PAINT, 3, PG III, (ERG#128)

### DOT (Dept of Transportation) Hazardous Substances & Reportable Quantities

Ethylbenzene 1000 lb RQ

Xylenes (mixed isomers) 100 lb RQ

### Bulk Containers may be Shipped as (check reportable quantities):

RQ, UN1263, PAINT, 3, PG III, (XYLEMES (MIXED ISOMERS)), (ERG#128)

### Canada (TDG)

UN1263, PAINT, 3, PG III, LIMITED QUANTITY, (ERG#128)

### IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.

UN1263, PAINT, 3, PG III, (29 C c.c.), EmS F-E, S-E

### IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.

UN1263, PAINT, 3, PG III, (29 C c.c.), EmS F-E, S-E

### IATA/ICAO

UN1263, PAINT, 3, PG III

## SECTION 15 — REGULATORY INFORMATION

### SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
100-41-4	Ethylbenzene	3	
1330-20-7	Xylene	15	

### CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

### TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

## SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

# MATERIAL SAFETY DATA SHEET

B58V600  
17 00

DATE OF PREPARATION  
Apr 28, 2016

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

B58V600

### PRODUCT NAME

MACROPOXY® 646 Fast Cure Epoxy Coating (Part B), Hardener

### MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY  
101 Prospect Avenue N.W.  
Cleveland, OH 44115

### Telephone Numbers and Websites

Product Information	(800) 524-5979 www.sherwin-williams.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300 <i>*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)</i>

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
0.8	100-41-4	Ethylbenzene	ACGIH TLV OSHA PEL OSHA PEL	20 PPM 100 PPM 125 PPM STEL 7.1 mm
4	1330-20-7	Xylene	ACGIH TLV ACGIH TLV OSHA PEL OSHA PEL	100 PPM 150 PPM STEL 100 PPM 150 PPM STEL 5.9 mm
7	108-10-1	Methyl Isobutyl Ketone	ACGIH TLV ACGIH TLV OSHA PEL OSHA PEL	50 PPM 75 PPM STEL 50 PPM 75 PPM STEL 16 mm
14	25085-99-8	Epoxy Polymer	ACGIH TLV OSHA PEL	Not Available Not Available
58	14808-60-7	Quartz	ACGIH TLV OSHA PEL	Not Available Not Available

## SECTION 3 — HAZARDS IDENTIFICATION

### ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.

EYE or SKIN contact with the product, vapor or spray mist.

### EFFECTS OF OVEREXPOSURE

EYES: Irritation.

SKIN: Prolonged or repeated exposure may cause irritation.

INHALATION: Irritation of the upper respiratory system.

HMIS Codes	
Health	2*
Flammability	3
Reactivity	0

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:

- the liver
- the urinary system
- the reproductive system

**SIGNS AND SYMPTOMS OF OVEREXPOSURE**

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.  
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

None generally recognized.

**CANCER INFORMATION**

For complete discussion of toxicology data refer to Section 11.

**SECTION 4 — FIRST AID MEASURES**

**EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.

**SKIN:** Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

**INHALATION:** If affected, remove from exposure. Restore breathing. Keep warm and quiet.

**INGESTION:** Do not induce vomiting. Get medical attention immediately.

**SECTION 5 — FIRE FIGHTING MEASURES**

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
64 °F PMCC	1.0	7.5	RED LABEL -- Flammable, Flash below 100 °F (38 °C)

**EXTINGUISHING MEDIA**

Carbon Dioxide, Dry Chemical, Foam

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

Closed containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

**SPECIAL FIRE FIGHTING PROCEDURES**

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

**SECTION 6 — ACCIDENTAL RELEASE MEASURES****STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

**SECTION 7 — HANDLING AND STORAGE****STORAGE CATEGORY**

DOL Storage Class IB

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**

Contents are FLAMMABLE. Keep away from heat, sparks, and open flame.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

**SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION****PRECAUTIONS TO BE TAKEN IN USE**

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).

**VENTILATION**

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

**RESPIRATORY PROTECTION**

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

**PROTECTIVE GLOVES**

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

**EYE PROTECTION**

Wear safety spectacles with unperforated sideshields.

**OTHER PRECAUTIONS**

This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

<b>PRODUCT WEIGHT</b>	13.48 lb/gal	1614 g/l
<b>SPECIFIC GRAVITY</b>	1.62	
<b>BOILING POINT</b>	237 - 292 °F	113 - 144 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	24%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
1.64 lb/gal	197 g/l	Less Water and Federally Exempt Solvents
1.64 lb/gal	197 g/l	Emitted VOC

**SECTION 10 — STABILITY AND REACTIVITY****STABILITY — Stable****CONDITIONS TO AVOID**

None known.

**INCOMPATIBILITY**

None known.

**HAZARDOUS DECOMPOSITION PRODUCTS**

By fire: Carbon Dioxide, Carbon Monoxide

**HAZARDOUS POLYMERIZATION**

Will not occur

**SECTION 11 — TOXICOLOGICAL INFORMATION****CHRONIC HEALTH HAZARDS**

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.

Crystalline Silica (Quartz, Cristobalite) is listed by IARC and NTP. Long term exposure to high levels of silica dust, which can occur only when sanding or abrading the dry film, may cause lung damage (silicosis) and possibly cancer.

**TOXICOLOGY DATA**

CAS No.	Ingredient Name	LC50 RAT	4HR	
100-41-4	Ethylbenzene	LD50 RAT		Not Available 3500 mg/kg
1330-20-7	Xylene	LC50 RAT LD50 RAT	4HR	5000 ppm 4300 mg/kg
108-10-1	Methyl Isobutyl Ketone	LC50 RAT LD50 RAT	4HR	Not Available 2080 mg/kg
25085-99-8	Epoxy Polymer	LC50 RAT LD50 RAT	4HR	Not Available Not Available
14808-60-7	Quartz	LC50 RAT LD50 RAT	4HR	Not Available Not Available

**SECTION 12 — ECOLOGICAL INFORMATION****ECOTOXICOLOGICAL INFORMATION**

No data available.

## SECTION 13 — DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

## SECTION 14 — TRANSPORT INFORMATION

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

### US Ground (DOT)

5 Liters (1.3 Gallons) and Less may be Classed as LTD. QTY. (PAINT OR RELATED).

Larger Containers are Regulated as:

UN1263, PAINT RELATED MATERIAL, 3, PG II, (ERG#128)

### DOT (Dept of Transportation) Hazardous Substances & Reportable Quantities

Xylenes (mixed isomers) 100 lb RQ

### Bulk Containers may be Shipped as (check reportable quantities):

RQ, UN1263, PAINT RELATED MATERIAL, 3, PG II, (XYLEMES (MIXED ISOMERS)), (ERG#128)

### Canada (TDG)

UN1263, PAINT RELATED MATERIAL, 3, PG II, LIMITED QUANTITY, (ERG#128)

### IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.

UN1263, PAINT RELATED MATERIAL, 3, PG II, (18 C c.c.), EmS F-E, S-E, MARINE POLLUTANT, (EPOXY RESIN)

### IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.

UN1263, PAINT RELATED MATERIAL, 3, PG II, (18 C c.c.), EmS F-E, S-E, MARINE POLLUTANT, (EPOXY RESIN)

### IATA/ICAO

UN1263, PAINT RELATED MATERIAL, 3, PG II, MARINE POLLUTANT, (EPOXY RESIN)

## SECTION 15 — REGULATORY INFORMATION

### SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
100-41-4	Ethylbenzene	0.7	
1330-20-7	Xylene	4	
108-10-1	Methyl Isobutyl Ketone	7	

### CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

### TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

## SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

# MATERIAL SAFETY DATA SHEET

B65W721  
13 00

DATE OF PREPARATION  
Apr 13, 2016

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

B65W721

### PRODUCT NAME

Waterbased ACROLON® 100 HS Waterbased Urethane (Part A), Extra White / Tint Base

### MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY  
101 Prospect Avenue N.W.  
Cleveland, OH 44115

### Telephone Numbers and Websites

Product Information	(800) 524-5979 www.sherwin-williams.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300 <i>*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)</i>

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
13	13463-67-7	Titanium Dioxide	ACGIH TLV OSHA PEL OSHA PEL	10 mg/m <sup>3</sup> as Dust 10 mg/m <sup>3</sup> Total Dust 5 mg/m <sup>3</sup> Respirable Fraction

## SECTION 3 — HAZARDS IDENTIFICATION

### ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.

EYE or SKIN contact with the product, vapor or spray mist.

### EFFECTS OF OVEREXPOSURE

EYES: Irritation.

SKIN: Prolonged or repeated exposure may cause irritation.

INHALATION: Irritation of the upper respiratory system.

### HMIS Codes

Health	1*
Flammability	0
Reactivity	0

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

May cause allergic respiratory and/or skin reaction in susceptible persons or sensitization. This effect may be delayed several hours after exposure.

Persons sensitive to isocyanates will experience increased allergic reaction on repeated exposure.

### CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

## SECTION 4 — FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

SKIN: Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

INHALATION: If any breathing problems occur during use, **LEAVE THE AREA** and get fresh air. If problems remain or occur later, **IMMEDIATELY** get medical attention.

INGESTION: Do not induce vomiting. Get medical attention immediately.

## SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
> 200 °F PMCC	Not Applicable	Not Applicable	Not Applicable

### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Alcohol Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

### SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

## SECTION 6 — ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

## SECTION 7 — HANDLING AND STORAGE

### STORAGE CATEGORY

DOL Storage Class IIIB

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally.

Keep out of the reach of children.

## SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

### PRECAUTIONS TO BE TAKEN IN USE

**NO PERSON SHOULD USE THIS PRODUCT, OR BE IN THE AREA WHERE IT IS BEING USED, IF THEY HAVE CHRONIC (LONG-TERM) LUNG OR BREATHING PROBLEMS OR IF THEY EVER HAD A REACTION TO ISOCYANATES.**

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).

### VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

### RESPIRATORY PROTECTION

Where overspray is present, a positive pressure air supplied respirator (TC19C NIOSH/MSHA approved) should be worn. If unavailable, a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2 may be effective. Follow respirator manufacturers directions for use. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. **NO PERSONS SHOULD BE ALLOWED IN THE AREA WHERE THIS PRODUCT IS BEING USED UNLESS EQUIPPED WITH THE SAME RESPIRATOR PROTECTION RECOMMENDED FOR THE PAINTERS.**

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

### PROTECTIVE GLOVES

To prevent skin contact, wear gloves which are recommended by glove supplier for protection against materials in Section 2.

### EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

### OTHER PROTECTIVE EQUIPMENT

Use barrier cream on exposed skin.

### OTHER PRECAUTIONS

This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

## SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	9.64 lb/gal	1154 g/l
SPECIFIC GRAVITY	1.16	
BOILING POINT	212 - 213 °F	100 - 100 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	63%	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	Not Available	
pH	> 2.0, < 11.5	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
0.38 lb/gal	45 g/l	Less Water and Federally Exempt Solvents
0.14 lb/gal	17 g/l	Emitted VOC

## SECTION 10 — STABILITY AND REACTIVITY

### STABILITY — Stable

### CONDITIONS TO AVOID

None known.

### INCOMPATIBILITY

None known.

### HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

### HAZARDOUS POLYMERIZATION

Will not occur

## SECTION 11 — TOXICOLOGICAL INFORMATION

### CHRONIC HEALTH HAZARDS

IARC's Monograph No. 93 reports there is sufficient evidence of carcinogenicity in experimental rats exposed to titanium dioxide but inadequate evidence for carcinogenicity in humans and has assigned a Group 2B rating. In addition, the IARC summary concludes, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium is bound to other materials, such as paint."

### TOXICOLOGY DATA

CAS No.	Ingredient Name	LC50 RAT	4HR	Not Available
13463-67-7	Titanium Dioxide	LD50 RAT		Not Available

## SECTION 12 — ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

No data available.

## SECTION 13 — DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL METHOD

Waste from this product is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

## SECTION 14 — TRANSPORT INFORMATION

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

### US Ground (DOT)

Not Regulated for Transportation.

### Canada (TDG)

Not Regulated for Transportation.

### IMO

Not Regulated for Transportation.

**IMO**

Not Regulated for Transportation.

**IATA/ICAO**

Not Regulated for Transportation.

**SECTION 15 — REGULATORY INFORMATION****SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION**

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
	Glycol Ethers	1	

**CALIFORNIA PROPOSITION 65**

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**TSCA CERTIFICATION**

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

**SECTION 16 — OTHER INFORMATION**

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

# MATERIAL SAFETY DATA SHEET

B65V720  
08 00

DATE OF PREPARATION  
Feb 23, 2015

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

B65V720

### PRODUCT NAME

Waterbased ACROLON® 100 HS Waterbased Urethane (Part B), Hardener

### MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY  
101 Prospect Avenue N.W.  
Cleveland, OH 44115

### Telephone Numbers and Websites

Product Information	(800) 524-5979 www.sherwin-williams.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300  *for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
16	123-86-4	n-Butyl Acetate	ACGIH TLV ACGIH TLV OSHA PEL OSHA PEL	150 PPM 200 PPM STEL 150 PPM 200 PPM STEL
0.2	822-06-0	Hexamethylene Diisocyanate (max.)	ACGIH TLV OSHA PEL	0.005 PPM Not Available
83	28182-81-2	Hexamethylene Diisocyanate Polymer	ACGIH TLV OSHA PEL	Not Available Not Available

## SECTION 3 — HAZARDS IDENTIFICATION

### ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.

EYE or SKIN contact with the product, vapor or spray mist.

### EFFECTS OF OVEREXPOSURE

EYES: Irritation.

SKIN: Prolonged or repeated exposure may cause irritation.

INHALATION: Irritation of the upper respiratory system.

### HMIS Codes

Health	3*
Flammability	2
Reactivity	0

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

May cause allergic respiratory and/or skin reaction in susceptible persons or sensitization. This effect may be delayed several hours after exposure.

Persons sensitive to isocyanates will experience increased allergic reaction on repeated exposure.

### CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

## SECTION 4 — FIRST AID MEASURES

**EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.

**SKIN:** Wash affected area thoroughly with soap and water.  
Remove contaminated clothing and launder before re-use.

**INHALATION:** If any breathing problems occur during use, **LEAVE THE AREA** and get fresh air. If problems remain or occur later, **IMMEDIATELY** get medical attention.

**INGESTION:** Do not induce vomiting. Get medical attention immediately.

## SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
105 °F PMCC	1.4	7.6	Combustible, Flash above 99 and below 200 °F

### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode when exposed to extreme heat.  
Application to hot surfaces requires special precautions.  
During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

### SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.  
Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

## SECTION 6 — ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.  
All personnel in the area should be protected as in Section 8.  
Cover spill with absorbent material. Deactivate spilled material with a 10% ammonium hydroxide solution (household ammonia). After 10 minutes, collect in open containers and add more ammonia. Cover loosely. Wash spill area with soap and water.

## SECTION 7 — HANDLING AND STORAGE

### STORAGE CATEGORY

DOL Storage Class II

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Contents are COMBUSTIBLE. Keep away from heat and open flame.  
Consult NFPA Code. Use approved Bonding and Grounding procedures.  
Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally.  
Keep out of the reach of children.

## SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

### PRECAUTIONS TO BE TAKEN IN USE

**NO PERSON SHOULD USE THIS PRODUCT, OR BE IN THE AREA WHERE IT IS BEING USED, IF THEY HAVE CHRONIC (LONG-TERM) LUNG OR BREATHING PROBLEMS OR IF THEY EVER HAD A REACTION TO ISOCYANATES.**

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).

### VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

### RESPIRATORY PROTECTION

Where overspray is present, a positive pressure air supplied respirator (TC19C NIOSH/MSHA approved) should be worn. If unavailable, a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2 may be effective. Follow respirator manufacturers directions for use. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. **NO PERSONS SHOULD BE ALLOWED IN THE AREA WHERE THIS PRODUCT IS BEING USED UNLESS EQUIPPED WITH THE SAME RESPIRATOR PROTECTION RECOMMENDED FOR THE PAINTERS.**

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

### PROTECTIVE GLOVES

To prevent skin contact, wear gloves which are recommended by glove supplier for protection against materials in Section 2.

**EYE PROTECTION**

Wear safety spectacles with unperforated sideshields.

**OTHER PROTECTIVE EQUIPMENT**

Use barrier cream on exposed skin.

**OTHER PRECAUTIONS**

This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

<b>PRODUCT WEIGHT</b>	9.16 lb/gal	1097 g/l
<b>SPECIFIC GRAVITY</b>	1.10	
<b>BOILING POINT</b>	255 - 264 °F	123 - 128 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	20%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>pH</b>	> 2.0, < 11.5	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
1.49 lb/gal	179 g/l	Less Water and Federally Exempt Solvents
1.49 lb/gal	179 g/l	Emitted VOC

**SECTION 10 — STABILITY AND REACTIVITY****STABILITY** — Stable**CONDITIONS TO AVOID**

None known.

**INCOMPATIBILITY**

Contamination with Water, Alcohols, Amines and other compounds which react with isocyanates, may result in dangerous pressure in, and possible bursting of, closed containers.

**HAZARDOUS DECOMPOSITION PRODUCTS**

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen, possibility of Hydrogen Cyanide

**HAZARDOUS POLYMERIZATION**

Will not occur

**SECTION 11 — TOXICOLOGICAL INFORMATION****CHRONIC HEALTH HAZARDS**

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

**TOXICOLOGY DATA**

CAS No.	Ingredient Name	LC50 RAT	4HR	2000 ppm
123-86-4	n-Butyl Acetate	LC50 RAT LD50 RAT		13100 mg/kg
822-06-0	Hexamethylene Diisocyanate (max.)	LC50 RAT LD50 RAT	4HR	Not Available 738 mg/kg
28182-81-2	Hexamethylene Diisocyanate Polymer	LC50 RAT LD50 RAT	4HR	Not Available Not Available

**SECTION 12 — ECOLOGICAL INFORMATION****ECOTOXICOLOGICAL INFORMATION**

No data available.

**SECTION 13 — DISPOSAL CONSIDERATIONS****WASTE DISPOSAL METHOD**

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

## SECTION 14 — TRANSPORT INFORMATION

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

### US Ground (DOT)

May be Classed as a Combustible Liquid for U.S. Ground.

UN1263, PAINT RELATED MATERIAL, 3, PG III, (ERG#128)

### DOT (Dept of Transportation) Hazardous Substances & Reportable Quantities

n-Butyl acetate 5000 lb RQ

### Bulk Containers may be Shipped as (check reportable quantities):

UN1263, PAINT RELATED MATERIAL, COMBUSTIBLE LIQUID, PG III,  
(ERG#128)

### Canada (TDG)

May be Classed as a Combustible Liquid for Canadian Ground.

UN1263, PAINT RELATED MATERIAL, CLASS 3, PG III, (ERG#128)

### IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.

UN1263, PAINT RELATED MATERIAL, CLASS 3, PG III, (41 C c.c.), EmS  
F-E, S-E

### IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.

UN1263, PAINT RELATED MATERIAL, CLASS 3, PG III, (41 C c.c.), EmS  
F-E, S-E

### IATA/ICAO

UN1263, PAINT RELATED MATERIAL, 3, PG III

## SECTION 15 — REGULATORY INFORMATION

### SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
---------	-------------------	---------	-----------

No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

### TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

## SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

# SAFETY DATA SHEET

B58T101

## Section 1. Identification

**Product name** : MACROPOXY® 920 Pre-Prime Penetrating Epoxy Pre-Primer (Part A)  
Transparent

**Product code** : B58T101

**Other means of identification** : Not available.

**Product type** : Liquid.

### Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

**Manufacturer** : THE SHERWIN-WILLIAMS COMPANY  
101 PROSPECT AVENUE, NW  
CLEVELAND, OHIO 44115

**Emergency telephone number of the company** : (216) 566-2917

**Product Information Telephone Number** : (800) 524-5979

**Regulatory Information Telephone Number** : (216) 566-2902

**Transportation Emergency Telephone Number** : (800) 424-9300

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
GERM CELL MUTAGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 50.2%

### GHS label elements

#### Hazard pictograms



#### Signal word

#### Hazard statements

: Warning  
: Causes serious eye irritation.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Suspected of causing genetic defects.  
May cause damage to organs through prolonged or repeated exposure.

### Precautionary statements

## Section 2. Hazards identification

<b>Prevention</b>	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
<b>Response</b>	: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
<b>Storage</b>	: Store locked up.
<b>Disposal</b>	Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	<p>DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. FOR INDUSTRIAL USE ONLY. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.</p> <p>Please refer to the SDS for additional information. Do not transfer contents to other containers for storage.</p>
<b>Hazards not otherwise classified</b>	: None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

### CAS number/other identifiers

Ingredient name	% by weight	CAS number
Epoxy Polymer	50.2	25068-38-6
Alkyl Glycidyl Ester	30.7	26761-45-5
Phenylmethanol	19.0	100-51-6

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
<b>Inhalation</b>	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## Section 4. First aid measures

### **Skin contact**

: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

### **Ingestion**

: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : Causes skin irritation. May cause an allergic skin reaction.

**Ingestion** : Irritating to mouth, throat and stomach.

#### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

**Inhalation** : No specific data.

**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

**Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

## Section 5. Fire-fighting measures

<b>Hazardous thermal decomposition products</b>	: Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds
<b>Special protective actions for fire-fighters</b>	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
<b>Environmental precautions</b>	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

<b>Small spill</b>	: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
<b>Large spill</b>	: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

<b>Protective measures</b>	: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
----------------------------	---

## Section 7. Handling and storage

### Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Phenylmethanol	AIHA WEEL (United States, 10/2011). TWA: 10 ppm 8 hours.

### Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

### Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

#### Skin protection

##### Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

##### Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## Section 8. Exposure controls/personal protection

**Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Not available.
<b>Odor</b>	: Not available.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: Not available.
<b>Melting point</b>	: Not available.
<b>Boiling point</b>	: 202°C (395.6°F)
<b>Flash point</b>	: Closed cup: 104°C (219.2°F) [Pensky-Martens Closed Cup]
<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Not available.
<b>Vapor pressure</b>	: 0.0025 kPa (0.019 mm Hg) [at 20°C]
<b>Vapor density</b>	: 3.72 [Air = 1]
<b>Relative density</b>	: 1.07
<b>Solubility</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Kinematic (room temperature): >0.07 cm <sup>2</sup> /s (>7 cSt) Kinematic (40°C (104°F)): >0.07 cm <sup>2</sup> /s (>7 cSt)
<b>Aerosol product</b>	
<b>Heat of combustion</b>	: 0.00002 kJ/g

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: No specific data.
<b>Incompatible materials</b>	: No specific data.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Alkyl Glycidyl Ester	LD50 Oral	Rat	>10 g/kg	-
Phenylmethanol	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1230 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Epoxy Polymer	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 microliters	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
Alkyl Glycidyl Ester Phenylmethanol	Skin - Moderate irritant	Rabbit	-	0.5 Milliliters	-
	Skin - Mild irritant	Man	-	48 hours 16 milligrams	-
	Skin - Moderate irritant	Pig	-	100 Percent	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Phenylmethanol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

#### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Phenylmethanol	Category 2	Not determined	Not determined

#### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

**Potential acute health effects**

**Eye contact** : Causes serious eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : Causes skin irritation. May cause an allergic skin reaction.  
**Ingestion** : Irritating to mouth, throat and stomach.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:  
    pain or irritation  
    watering  
    redness  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
    irritation  
    redness  
**Ingestion** : No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

Not available.

**General** : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : Suspected of causing genetic defects.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**

Route	ATE value
Oral	3213 mg/kg
Dermal	5224.4 mg/kg

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Phenylmethanol	Acute LC50 10000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Phenylmethanol	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Epoxy Polymer Alkyl Glycidyl Ester	- -	31 371.6	low low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

### Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

## Section 14. Transport information

<u>Additional information</u>	<u>Special provisions</u>	<u>Special provisions</u>	<u>Special provisions</u>	<u>Special provisions</u>	<u>Emergency schedules (EmS)</u>
	Not Applicable				

**Special precautions for user :** Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory information

U.S. Federal regulations :  
State regulations

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	*	2
Flammability		1
Physical hazards		0

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

### Notice to reader

## Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

# SAFETY DATA SHEET

B58V10

## Section 1. Identification

**Product name** : MACROPOXY® 920 Pre-Prime Penetrating Epoxy Pre-Primer (Part B)  
Hardener

**Product code** : B58V10

**Other means of identification** : Not available.

**Product type** : Liquid.

### Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

**Manufacturer** : THE SHERWIN-WILLIAMS COMPANY  
101 PROSPECT AVENUE, NW  
CLEVELAND, OHIO 44115

**Emergency telephone number of the company** : (216) 566-2917

**Product Information Telephone Number** : (800) 524-5979

**Regulatory Information Telephone Number** : (216) 566-2902

**Transportation Emergency Telephone Number** : (800) 424-9300

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : ACUTE TOXICITY (oral) - Category 4  
ACUTE TOXICITY (dermal) - Category 4  
SKIN CORROSION/IRRITATION - Category 1  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
RESPIRATORY SENSITIZATION - Category 1  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 80.4%

### GHS label elements

**Hazard pictograms** :



**Signal word**

**Hazard statements** :

- Danger
- Harmful if swallowed or in contact with skin.  
Causes severe skin burns and eye damage.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.  
Suspected of causing cancer.  
May cause damage to organs through prolonged or repeated exposure.

### Precautionary statements

**Date of issue/Date of revision**

: 5/19/2016

**Date of previous issue**

: 2/17/2016

**Version** : 2.01

1/13

## Section 2. Hazards identification

<b>Prevention</b>	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Wear respiratory protection. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
<b>Response</b>	: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
<b>Storage</b>	: Store locked up.
<b>Disposal</b>	Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	<p>WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.</p> <p>Please refer to the SDS for additional information. Do not transfer contents to other containers for storage.</p>
<b>Hazards not otherwise classified</b>	: None known.

## Section 3. Composition/information on ingredients

**Substance/mixture**

: Mixture

**Other means of identification**

: Not available.

### CAS number/other identifiers

Ingredient name	% by weight	CAS number
Aliphatic Ethanediamine	≥75 - ≤90	25707-70-4
Tri(dimethylaminomethyl)phenol	≥10 - ≤18	90-72-2
Phenylmethanol	≤9.6	100-51-6
Ethylenediamine	≤3	107-15-3
Methyl Isobutyl Ketone	≤3	108-10-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

### Description of necessary first aid measures

#### **Eye contact**

- : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

#### **Inhalation**

- : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.

#### **Skin contact**

- : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

#### **Ingestion**

- : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

##### **Eye contact**

- : Causes serious eye damage.

##### **Inhalation**

- : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

##### **Skin contact**

- : Causes severe burns. Harmful in contact with skin. May cause an allergic skin reaction.

##### **Ingestion**

- : Harmful if swallowed.

#### Over-exposure signs/symptoms

##### **Eye contact**

- : Adverse symptoms may include the following:  
pain  
watering  
redness

##### **Inhalation**

- : Adverse symptoms may include the following:  
wheezing and breathing difficulties  
asthma

##### **Skin contact**

- : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur

##### **Ingestion**

- : Adverse symptoms may include the following:  
stomach pains

### Indication of immediate medical attention and special treatment needed, if necessary

## Section 4. First aid measures

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 6. Accidental release measures

### Large spill

: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

#### Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Aliphatic Ethanediamine	None.
Tri(dimethylaminomethyl)phenol	None.
Phenylmethanol	<b>AIHA WEEL (United States, 10/2011).</b> TWA: 10 ppm 8 hours.
Ethylenediamine	<b>ACGIH TLV (United States, 3/2015).</b> <b>Absorbed through skin.</b> TWA: 10 ppm 8 hours. <b>NIOSH REL (United States, 10/2013).</b> TWA: 10 ppm 10 hours. TWA: 25 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 2/2013).</b> TWA: 10 ppm 8 hours. TWA: 25 mg/m <sup>3</sup> 8 hours.
Methyl Isobutyl Ketone	<b>ACGIH TLV (United States, 3/2015).</b> TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes. <b>NIOSH REL (United States, 10/2013).</b> TWA: 50 ppm 10 hours.

## Section 8. Exposure controls/personal protection

TWA: 205 mg/m<sup>3</sup> 10 hours.  
STEL: 75 ppm 15 minutes.  
STEL: 300 mg/m<sup>3</sup> 15 minutes.  
**OSHA PEL (United States, 2/2013).**  
TWA: 100 ppm 8 hours.  
TWA: 410 mg/m<sup>3</sup> 8 hours.

### Appropriate engineering controls

- : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

### Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

#### Skin protection

##### Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

##### Body protection

- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Other skin protection

- : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Respiratory protection

- : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

#### Physical state

- : Liquid.

#### Color

- : Not available.

#### Odor

- : Not available.

#### Odor threshold

- : Not available.

#### pH

- : Not available.

## Section 9. Physical and chemical properties

<b>Melting point</b>	: Not available.
<b>Boiling point</b>	: 113°C (235.4°F)
<b>Flash point</b>	: Closed cup: 104°C (219.2°F) [Pensky-Martens Closed Cup]
<b>Evaporation rate</b>	: 1.62 (butyl acetate = 1)
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Lower: 1.3% Upper: 16.6%
<b>Vapor pressure</b>	: 0.28 kPa (2.133 mm Hg) [at 20°C]
<b>Vapor density</b>	: 2.07 [Air = 1]
<b>Relative density</b>	: 0.88
<b>Solubility</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Kinematic (room temperature): >0.205 cm <sup>2</sup> /s (>20.5 cSt) Kinematic (40°C (104°F)): >0.205 cm <sup>2</sup> /s (>20.5 cSt)
<b>Molecular weight</b>	: Not applicable.
<b>Aerosol product</b>	
<b>Heat of combustion</b>	: 7.952 kJ/g

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: No specific data.
<b>Incompatible materials</b>	: No specific data.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Tri(dimethylaminomethyl)phenol	LD50 Dermal	Rat	1280 mg/kg	-
Phenylmethanol	LD50 Oral	Rat	1200 mg/kg	-
	LD50 Dermal	Rabbit	2000 mg/kg	-
Ethylenediamine	LD50 Oral	Rat	1230 mg/kg	-
Methyl Isobutyl Ketone	LD50 Oral	Rat	1200 mg/kg	-
	LD50 Oral	Rat	2080 mg/kg	-

#### Irritation/Corrosion

## Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Tri(dimethylaminomethyl) phenol	Eyes - Severe irritant	Rabbit	-	24 hours 50 Micrograms	-
	Skin - Mild irritant	Rat	-	0.025 Milliliters	-
	Skin - Severe irritant	Rat	-	0.25 Milliliters	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
Phenylmethanol	Skin - Mild irritant	Man	-	48 hours 16 milligrams	-
	Skin - Moderate irritant	Pig	-	100 Percent	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
Ethylenediamine	Eyes - Severe irritant	Rabbit	-	24 hours 750 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	750 Micrograms	-
	Skin - Moderate irritant	Rabbit	-	450 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 10 milligrams	-
Methyl Isobutyl Ketone	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters	-
	Eyes - Severe irritant	Rabbit	-	40 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
Methyl Isobutyl Ketone	-	2B	-

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Phenylmethanol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Methyl Isobutyl Ketone	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

### Specific target organ toxicity (repeated exposure)

## Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Phenylmethanol Methyl Isobutyl Ketone	Category 2 Category 2	Not determined Not determined	Not determined Not determined

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye damage.

**Inhalation** : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin contact** : Causes severe burns. Harmful in contact with skin. May cause an allergic skin reaction.

**Ingestion** : Harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness

**Inhalation** : Adverse symptoms may include the following:  
wheezing and breathing difficulties  
asthma

**Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur

**Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**General** : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects**

: No known significant effects or critical hazards.

**Numerical measures of toxicity****Acute toxicity estimates**

Route	ATE value
Oral	1254.2 mg/kg
Dermal	1856.7 mg/kg

**Section 12. Ecological information****Toxicity**

Product/ingredient name	Result	Species	Exposure
Phenylmethanol	Acute LC50 10000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
Ethylenediamine	Acute EC50 100000 µg/l Fresh water	Algae - Chlorella pyrenoidosa	96 hours
	Acute LC50 26500 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 115.7 mg/l Fresh water	Fish - Pimephales promelas	96 hours
Methyl Isobutyl Ketone	Chronic NOEC 160 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute LC50 505000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 78 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 168 mg/l Fresh water	Fish - Pimephales promelas - Embryo	33 days

**Persistence and degradability**

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Phenylmethanol	-	-	Readily
Methyl Isobutyl Ketone	-	-	Readily

**Bioaccumulative potential**

Not available.

**Mobility in soil****Soil/water partition coefficient (K<sub>oc</sub>)**

: Not available.

**Other adverse effects**

: No known significant effects or critical hazards.

**Section 13. Disposal considerations****Disposal methods**

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Not regulated.				
UN proper shipping name	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	<u>Special provisions</u> Not Applicable				

**Special precautions for user :** Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

**Proper shipping name** : Not available.

**Ship type** : Not available.

**Pollution category** : Not available.

## Section 15. Regulatory information

### SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

### California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		1
Physical hazards		0

The customer is responsible for determining the PPE code for this material.

## Section 16. Other information

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

### Procedure used to derive the classification

#### **Classification**

ACUTE TOXICITY (oral) - Category 4  
ACUTE TOXICITY (dermal) - Category 4  
SKIN CORROSION/IRRITATION - Category 1  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
RESPIRATORY SENSITIZATION - Category 1  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

#### **Justification**

Calculation method  
Calculation method

### History

**Date of printing** : 5/19/2016

**Date of issue/Date of revision** : 5/19/2016

**Date of previous issue** : 2/17/2016

**Version** : 2.01

**Key to abbreviations** : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

### Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

<b>Date of issue/Date of revision</b>	: 5/19/2016	<b>Date of previous issue</b>	: 2/17/2016	<b>Version</b> : 2.01	13/13
---------------------------------------	-------------	-------------------------------	-------------	-----------------------	-------

# SAFETY DATA SHEET

B58W610

## Section 1. Identification

**Product name** : MACROPOXY® 646 Fast Cure Epoxy Coating (Part A)  
Mill White

**Product code** : B58W610

**Other means of identification** : Not available.

**Product type** : Liquid.

### Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

**Manufacturer** : THE SHERWIN-WILLIAMS COMPANY  
101 PROSPECT AVENUE, NW  
CLEVELAND, OHIO 44115

**Emergency telephone number of the company** : (216) 566-2917

**Product Information Telephone Number** : (800) 524-5979

**Regulatory Information Telephone Number** : (216) 566-2902

**Transportation Emergency Telephone Number** : (800) 424-9300

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 3  
ACUTE TOXICITY (inhalation) - Category 4  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (skin) - Category 2  
ASPIRATION HAZARD - Category 1  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 41.2%

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

## Section 2. Hazards identification

<b>Hazard statements</b>	: Flammable liquid and vapor. Harmful if inhaled. Causes serious eye damage. Causes skin irritation. May cause an allergic skin reaction. Suspected of causing cancer. May be fatal if swallowed and enters airways. May cause respiratory irritation. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. (skin)
<b>Precautionary statements</b>	
<b>Prevention</b>	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
<b>Response</b>	: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
<b>Storage</b>	: Store locked up. Store in a well-ventilated place. Keep cool.
<b>Disposal</b>	Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS. Please refer to the SDS for additional information. Do not transfer contents to other containers for storage.
<b>Hazards not otherwise classified</b>	: None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.
<b>CAS number/other identifiers</b>	

## Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Titanium Dioxide	≥25 - ≤50	13463-67-7
Phenol, isobutyleneated methylstyrenated	≥10 - ≤25	68457-74-9
Xylene	≥10 - ≤25	1330-20-7
Polyamide	≥10 - ≤25	68410-23-1
Ethylbenzene	≤3	100-41-4
Triethylene Tetramine	<1	112-24-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

#### **Eye contact**

- : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

#### **Inhalation**

- : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

#### **Skin contact**

- : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

#### **Ingestion**

- : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

##### **Eye contact**

- : Causes serious eye damage.

##### **Inhalation**

- : Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

##### **Skin contact**

- : Causes skin irritation. May cause an allergic skin reaction.

##### **Ingestion**

- : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

### Over-exposure signs/symptoms

## Section 4. First aid measures

<b>Eye contact</b>	: Adverse symptoms may include the following: pain watering redness
<b>Inhalation</b>	: Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
<b>Skin contact</b>	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
<b>Ingestion</b>	: Adverse symptoms may include the following: stomach pains nausea or vomiting

### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: No specific treatment.
<b>Protection of first-aiders</b>	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	: Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
<b>Unsuitable extinguishing media</b>	: Do not use water jet.
<b>Specific hazards arising from the chemical</b>	: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
<b>Hazardous thermal decomposition products</b>	: Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides
<b>Special protective actions for fire-fighters</b>	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
<b>Special protective equipment for fire-fighters</b>	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Titanium Dioxide	<b>ACGIH TLV (United States, 3/2015).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. <b>OSHA PEL (United States, 2/2013).</b> TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust None.
Phenol, isobutylenated methylstyrenated Xylene	<b>ACGIH TLV (United States, 3/2015).</b> TWA: 100 ppm 8 hours. TWA: 434 mg/m <sup>3</sup> 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m <sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 2/2013).</b> TWA: 100 ppm 8 hours. TWA: 435 mg/m <sup>3</sup> 8 hours.
Polyamide Ethylbenzene	None. <b>ACGIH TLV (United States, 3/2015).</b> TWA: 20 ppm 8 hours. <b>NIOSH REL (United States, 10/2013).</b> TWA: 100 ppm 10 hours. TWA: 435 mg/m <sup>3</sup> 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m <sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 2/2013).</b> TWA: 100 ppm 8 hours. TWA: 435 mg/m <sup>3</sup> 8 hours.
Triethylene Tetramine	<b>AIHA WEEL (United States, 10/2011).</b> Absorbed through skin. TWA: 1 ppm 8 hours.

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

## Section 8. Exposure controls/personal protection

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

**Physical state** : Liquid.

**Color** : Not available.

**Odor** : Not available.

**Odor threshold** : Not available.

**pH** : Not available.

**Melting point** : Not available.

**Boiling point** : 136°C (276.8°F)

**Flash point** : Closed cup: 29°C (84.2°F) [Pensky-Martens Closed Cup]

**Evaporation rate** : 0.8 (butyl acetate = 1)

**Flammability (solid, gas)** : Not available.

**Lower and upper explosive (flammable) limits** : Lower: 1%  
Upper: 7%

**Vapor pressure** : 0.13 kPa (0.946 mm Hg) [at 20°C]

**Vapor density** : 3.66 [Air = 1]

**Relative density** : 1.46

**Solubility** : Not available.

**Partition coefficient: n-octanol/water** : Not available.

**Auto-ignition temperature** : Not available.

## Section 9. Physical and chemical properties

<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Kinematic (room temperature): <0.205 cm <sup>2</sup> /s (<20.5 cSt) Kinematic (40°C (104°F)): <0.205 cm <sup>2</sup> /s (<20.5 cSt)
<b>Molecular weight</b>	: Not applicable.
<b>Aerosol product</b>	
<b>Heat of combustion</b>	: 5.517 kJ/g

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
<b>Incompatible materials</b>	: Reactive or incompatible with the following materials: oxidizing materials
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Phenol, isobutylenated methylstyrenated	LD50 Dermal	Rabbit	>20000 mg/kg	-
Xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
Ethylbenzene	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Triethylene Tetramine	LD50 Dermal	Rabbit	805 mg/kg	-
	LD50 Oral	Rat	2500 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-
Xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 milligrams	-

## Section 11. Toxicological information

Triethylene Tetramine	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	49 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Severe irritant	Rabbit	-	490 milligrams	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP	
Titanium Dioxide	-	2B	-	
Xylene	-	3	-	
Ethylbenzene	-	2B	-	

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Phenol, isobutylenated methylstyrenated	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Xylene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Ethylbenzene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Phenol, isobutylenated methylstyrenated	Category 2	Not determined	skin
Xylene	Category 2	Not determined	Not determined
Ethylbenzene	Category 2	Not determined	Not determined

### Aspiration hazard

Name	Result
Phenol, isobutylenated methylstyrenated	ASPIRATION HAZARD - Category 1
Xylene	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** : Not available.

#### **Potential acute health effects**

**Eye contact** : Causes serious eye damage.

**Inhalation** : Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

**Skin contact** : Causes skin irritation. May cause an allergic skin reaction.

**Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

#### **Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness

**Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur

**Ingestion** : Adverse symptoms may include the following:  
stomach pains  
nausea or vomiting

#### **Delayed and immediate effects and also chronic effects from short and long term exposure**

##### **Short term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

##### **Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

##### **Potential chronic health effects**

Not available.

**General** : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

## Numerical measures of toxicity

### Acute toxicity estimates

Route	ATE value
Oral Inhalation (gases)	14091.5 mg/kg 19943.9 ppm

## **Section 12. Ecological information**

### Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours
Xylene	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
Ethylbenzene	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6530 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2930 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Triethylene Tetramine	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 3700 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute LC50 33900 µg/l Fresh water	Daphnia - Daphnia magna	48 hours

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Xylene	-	-	Readily
Ethylbenzene	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Titanium Dioxide	-	352	low
Xylene	-	8.1 to 25.9	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## **Section 13. Disposal considerations**

### **Disposal methods**

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a

## Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.
Additional information	<u>Special provisions</u> Not Applicable	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2. 18-2.19 (Class 3).	<u>Special provisions</u> Not Applicable	<u>Special provisions</u> Not Applicable	<u>Emergency schedules (EmS)</u> F-E, S-E  <u>Special provisions</u> Not Applicable
	<u>ERG No.</u> 128	<u>ERG No.</u> 128	<u>ERG No.</u> 128		

**Special precautions for user** : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

**Transport in bulk according  
to Annex II of MARPOL and  
the IBC Code** : Not available.

**Proper shipping name** : Not available.  
**Ship type** : Not available.  
**Pollution category** : Not available.

## Section 15. Regulatory information

### SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

### California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		3
Physical hazards		0

The customer is responsible for determining the PPE code for this material.

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

### Procedure used to derive the classification

#### **Classification**

FLAMMABLE LIQUIDS - Category 3  
ACUTE TOXICITY (inhalation) - Category 4  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (skin) - Category 2  
ASPIRATION HAZARD - Category 1

#### **Justification**

On basis of test data  
Calculation method  
Calculation method

### History

**Date of printing** : 4/6/2016

**Date of issue/Date of revision** : 4/6/2016

**Date of previous issue** : 3/28/2016

**Version** : 2.01

**Key to abbreviations** : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

### Notice to reader

<b>Date of issue/Date of revision</b>	: 4/6/2016	<b>Date of previous issue</b>	: 3/28/2016	<b>Version</b> : 2.01	13/14
---------------------------------------	------------	-------------------------------	-------------	-----------------------	-------

## Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

# SAFETY DATA SHEET

B58V600

## Section 1. Identification

**Product name** : MACROPOXY® 646 Fast Cure Epoxy Coating (Part B)  
Hardener

**Product code** : B58V600

**Other means of identification** : Not available.

**Product type** : Liquid.

### Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

**Manufacturer** : THE SHERWIN-WILLIAMS COMPANY  
101 PROSPECT AVENUE, NW  
CLEVELAND, OHIO 44115

**Emergency telephone number of the company** : (216) 566-2917

**Product Information Telephone Number** : (800) 524-5979

**Regulatory Information Telephone Number** : (216) 566-2902

**Transportation Emergency Telephone Number** : (800) 424-9300

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 2  
ACUTE TOXICITY (inhalation) - Category 4  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 85.3%

### GHS label elements

**Hazard pictograms** :



**Signal word**

**Hazard statements**

: Danger  
: Highly flammable liquid and vapor.  
Harmful if inhaled.  
Causes serious eye irritation.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Suspected of causing cancer.  
May cause damage to organs through prolonged or repeated exposure.

### Precautionary statements

**Date of issue/Date of revision**

: 4/28/2016

**Date of previous issue**

: 11/27/2015

**Version** : 2.04

1/13

## Section 2. Hazards identification

<b>Prevention</b>	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
<b>Response</b>	: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
<b>Storage</b>	: Store locked up. Store in a well-ventilated place. Keep cool.
<b>Disposal</b>	Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Contains Formaldehyde - a potential cancer hazard. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS. Adequate ventilation required when sanding or abrading the dried film. If Adequate ventilation cannot be provided wear an approved particulate respirator (NIOSH approved). Follow respirator manufacturer's directions for respirator use. DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Abrading or sanding of the dry film may release Crystalline Silica which has been shown to cause lung damage and cancer under long term exposure. Please refer to the SDS for additional information. Do not transfer contents to other containers for storage.
<b>Hazards not otherwise classified</b>	: None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

### CAS number/other identifiers

Ingredient name	% by weight	CAS number
Epoxy Polymer	≥10 - ≤25	25085-99-8
Epoxy Polymer	≥10 - ≤25	61788-97-4
Methyl Isobutyl Ketone	≤10	108-10-1
Xylene	≤5	1330-20-7
Ethylbenzene	<1	100-41-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**Inhalation** : Harmful if inhaled.

**Skin contact** : Causes skin irritation. May cause an allergic skin reaction.

**Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

**Inhalation** : No specific data.

**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

**Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

## Section 4. First aid measures

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact

## Section 6. Accidental release measures

information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene**

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities**

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Epoxy Polymer	None.
Epoxy Polymer	None.
Methyl Isobutyl Ketone	<b>ACGIH TLV (United States, 3/2015).</b> TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes. <b>NIOSH REL (United States, 10/2013).</b> TWA: 50 ppm 10 hours. TWA: 205 mg/m <sup>3</sup> 10 hours. STEL: 75 ppm 15 minutes. STEL: 300 mg/m <sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 2/2013).</b> TWA: 100 ppm 8 hours. TWA: 410 mg/m <sup>3</sup> 8 hours.
Xylene	<b>ACGIH TLV (United States, 3/2015).</b> TWA: 100 ppm 8 hours. TWA: 434 mg/m <sup>3</sup> 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m <sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 2/2013).</b> TWA: 100 ppm 8 hours.

## Section 8. Exposure controls/personal protection

Ethylbenzene	TWA: 435 mg/m <sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 3/2015).</b> TWA: 20 ppm 8 hours. <b>NIOSH REL (United States, 10/2013).</b> TWA: 100 ppm 10 hours. TWA: 435 mg/m <sup>3</sup> 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m <sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 2/2013).</b> TWA: 100 ppm 8 hours. TWA: 435 mg/m <sup>3</sup> 8 hours.
--------------	--

### Appropriate engineering controls

- Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### Environmental exposure controls

- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

#### Skin protection

##### Hand protection

- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

##### Body protection

- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

##### Other skin protection

- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Respiratory protection

- Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Not available.
<b>Odor</b>	: Not available.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: Not available.
<b>Melting point</b>	: Not available.
<b>Boiling point</b>	: 113°C (235.4°F)
<b>Flash point</b>	: Closed cup: 18°C (64.4°F) [Pensky-Martens Closed Cup]
<b>Evaporation rate</b>	: 1.62 (butyl acetate = 1)
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Lower: 1% Upper: 7.5%
<b>Vapor pressure</b>	: 0.28 kPa (2.133 mm Hg) [at 20°C]
<b>Vapor density</b>	: 3.45 [Air = 1]
<b>Relative density</b>	: 1.62
<b>Solubility</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Kinematic (room temperature): >0.205 cm <sup>2</sup> /s (>20.5 cSt) Kinematic (40°C (104°F)): >0.07 cm <sup>2</sup> /s (>7 cSt)
<b>Molecular weight</b>	: Not applicable.
<b>Aerosol product</b>	
<b>Heat of combustion</b>	: 3.913 kJ/g

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
<b>Incompatible materials</b>	: Reactive or incompatible with the following materials: oxidizing materials
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl Isobutyl Ketone	LD50 Oral	Rat	2080 mg/kg	-
Xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours

Ethylbenzene	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl Isobutyl Ketone	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters	-
	Eyes - Severe irritant	Rabbit	-	40 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
Ethylbenzene	Skin - Moderate irritant	Rabbit	-	100 Percent	-
	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Classification

Product/ingredient name	OSHA	IARC	NTP
Methyl Isobutyl Ketone	-	2B	-
Xylene	-	3	-
Ethylbenzene	-	2B	-

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

## Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Methyl Isobutyl Ketone	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Xylene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Ethylbenzene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Methyl Isobutyl Ketone	Category 2	Not determined	Not determined
Xylene	Category 2	Not determined	Not determined
Ethylbenzene	Category 2	Not determined	Not determined

### Aspiration hazard

Name	Result
Xylene	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

<b>Eye contact</b>	: Causes serious eye irritation.
<b>Inhalation</b>	: Harmful if inhaled.
<b>Skin contact</b>	: Causes skin irritation. May cause an allergic skin reaction.
<b>Ingestion</b>	: No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	: No specific data.
<b>Skin contact</b>	: Adverse symptoms may include the following: irritation redness
<b>Ingestion</b>	: No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### **Potential chronic health effects**

Not available.

<b>General</b>	: May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Carcinogenicity</b>	: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.

#### **Numerical measures of toxicity**

##### **Acute toxicity estimates**

Route	ATE value
Oral Inhalation (gases)	3491 mg/kg 16829.4 ppm

## Section 12. Ecological information

#### **Toxicity**

Product/ingredient name	Result	Species	Exposure
Methyl Isobutyl Ketone	Acute LC50 505000 µg/l Fresh water Chronic NOEC 78 mg/l Fresh water Chronic NOEC 168 mg/l Fresh water	Fish - Pimephales promelas Daphnia - Daphnia magna Fish - Pimephales promelas - Embryo	96 hours 21 days 33 days
Xylene	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
Ethylbenzene	Acute LC50 13400 µg/l Fresh water Acute EC50 4600 µg/l Fresh water Acute EC50 3600 µg/l Fresh water Acute EC50 6530 µg/l Fresh water Acute EC50 2930 µg/l Fresh water Acute LC50 4200 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata Algae - Pseudokirchneriella subcapitata Crustaceans - Artemia sp. - Nauplii Daphnia - Daphnia magna - Neonate Fish - Oncorhynchus mykiss	96 hours 72 hours 96 hours 48 hours 48 hours 96 hours

#### **Persistence and degradability**

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl Isobutyl Ketone	-	-	Readily
Xylene	-	-	Readily
Ethylbenzene	-	-	Readily

#### **Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Xylene	-	8.1 to 25.9	low

#### **Mobility in soil**

Date of issue/Date of revision	: 4/28/2016	Date of previous issue	: 11/27/2015	Version	: 2.04	10/13
--------------------------------	-------------	------------------------	--------------	---------	--------	-------

## Section 12. Ecological information

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
<b>UN number</b>	UN1263	UN1263	UN1263	UN1263	UN1263
<b>UN proper shipping name</b>	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL. Marine pollutant (Epoxy Polymer, Epoxy Polymer)
<b>Transport hazard class(es)</b>	3 	3 	3 	3 	3  
<b>Packing group</b>	II	II	II	II	II
<b>Environmental hazards</b>	No.	No.	No.	No.	Yes.
<b>Additional information</b>	<u>Special provisions</u> Not Applicable	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2. 18-2.19 (Class 3).	<u>Special provisions</u> (ERG#128)	The environmentally hazardous substance mark may appear if required by other transportation regulations.	The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.
	<u>Special provisions</u> Not Applicable	<u>Special provisions</u> Not Applicable	<u>Special provisions</u> Not Applicable		<u>Emergency schedules (EmS)</u> F-E, S-E
	<b>ERG No.</b>	<b>ERG No.</b>	<b>ERG No.</b>		
	128	128	128		

## Section 14. Transport information

**Special precautions for user :** Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

**Proper shipping name** : Not available.

**Ship type** : Not available.

**Pollution category** : Not available.

## Section 15. Regulatory information

### SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

### California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	*	2
Flammability		3
Physical hazards		0

The customer is responsible for determining the PPE code for this material.

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

### Procedure used to derive the classification

#### **Classification**

FLAMMABLE LIQUIDS - Category 2  
ACUTE TOXICITY (inhalation) - Category 4  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

#### **Justification**

On basis of test data  
Calculation method  
Calculation method  
Calculation method  
Calculation method  
Calculation method  
Calculation method

### History

**Date of printing** : 4/28/2016

**Date of issue/Date of revision** : 4/28/2016

**Date of issue/Date of revision**

: 4/28/2016

**Date of previous issue**

: 11/27/2015

**Version** : 2.04

12/13

## Section 16. Other information

<b>Date of previous issue</b>	:	11/27/2015
<b>Version</b>	:	2.04
<b>Key to abbreviations</b>	:	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

### Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

# SAFETY DATA SHEET

B65W721

## Section 1. Identification

**Product name** : Waterbased ACROLON® 100 HS Waterbased Urethane (Part A)  
Extra White / Tint Base

**Product code** : B65W721

**Other means of identification** : Not available.

**Product type** : Liquid.

### Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

**Manufacturer** : THE SHERWIN-WILLIAMS COMPANY  
101 PROSPECT AVENUE, NW  
CLEVELAND, OHIO 44115

**Emergency telephone number of the company** : (216) 566-2917

**Product Information Telephone Number** : (800) 524-5979

**Regulatory Information Telephone Number** : (216) 566-2902

**Transportation Emergency Telephone Number** : (800) 424-9300

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 13.5%

### GHS label elements

**Hazard pictograms** :



**Signal word**

**Hazard statements** : Warning  
May cause an allergic skin reaction.  
Suspected of causing cancer.

### Precautionary statements

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Avoid breathing vapor. Contaminated work clothing must not be allowed out of the workplace.

**Response** : IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

**Storage** : Store locked up.

**Date of issue/Date of revision**

: 4/13/2016

**Date of previous issue**

: 4/11/2016

**Version** : 2.02

1/11

## Section 2. Hazards identification

<b>Disposal</b>	Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS. Please refer to the SDS for additional information. Do not transfer contents to other containers for storage.
<b>Hazards not otherwise classified</b>	: None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

### CAS number/other identifiers

Ingredient name	% by weight	CAS number
Titanium Dioxide	≥10 - ≤25	13463-67-7
Pentamethylperidyl Sebacate	≤1	41556-26-7
UV Light Absorber	≤0.3	104810-48-2
Benzotriazole Hydroxyphenyl Polymer	≤0.3	104810-47-1
Pentamethylperidyl Sebacate	≤0.3	82919-37-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
<b>Inhalation</b>	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Skin contact</b>	: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Ingestion</b>	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## Section 4. First aid measures

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

## Section 6. Accidental release measures

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

### Occupational exposure limits

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Titanium Dioxide	ACGIH TLV (United States, 3/2015). TWA: 10 mg/m <sup>3</sup> 8 hours.
Pentamethylperidyl Sebacate	OSHA PEL (United States, 2/2013). TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust
UV Light Absorber	None.
Benzotriazole Hydroxyphenyl Polymer	None.
Pentamethylperidyl Sebacate	None.

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Not available.
<b>Odor</b>	: Not available.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: 7
<b>Melting point</b>	: Not available.
<b>Boiling point</b>	: 100°C (212°F)
<b>Flash point</b>	: Closed cup: 94°C (201.2°F) [Pensky-Martens Closed Cup]
<b>Evaporation rate</b>	: 0.09 (butyl acetate = 1)
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Not available.
<b>Vapor pressure</b>	: 0.31 kPa (2.333 mm Hg) [at 20°C]
<b>Vapor density</b>	: 1 [Air = 1]
<b>Relative density</b>	: 1.15
<b>Solubility</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Kinematic (room temperature): >0.205 cm <sup>2</sup> /s (>20.5 cSt) Kinematic (40°C (104°F)): >0.205 cm <sup>2</sup> /s (>20.5 cSt)
<b>Molecular weight</b>	: Not applicable.
<b>Aerosol product</b>	
<b>Heat of combustion</b>	: 0.977 kJ/g

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: No specific data.
<b>Incompatible materials</b>	: No specific data.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Not available.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium Dioxide	-	2B	-

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

#### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : May cause an allergic skin reaction.

**Ingestion** : No known significant effects or critical hazards.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.

**Inhalation** : No specific data.

**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

**Ingestion** : No specific data.

## Delayed and immediate effects and also chronic effects from short and long term exposure

### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

## Numerical measures of toxicity

### Acute toxicity estimates

Not available.

## **Section 12. Ecological information**

### Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Titanium Dioxide	-	352	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

### Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Not regulated.				
UN proper shipping name	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	<u>Special provisions</u> Not Applicable				

**Special precautions for user** : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

<b>Proper shipping name</b>	: Not available.
<b>Ship type</b>	: Not available.
<b>Pollution category</b>	: Not available.

## Section 15. Regulatory information

### SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

### California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	*	1
Flammability		0
Physical hazards		0

The customer is responsible for determining the PPE code for this material.

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

### Procedure used to derive the classification

#### **Classification**

SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2

#### **Justification**

Calculation method  
Calculation method

### History

<b>Date of printing</b>	:	4/13/2016
<b>Date of issue/Date of revision</b>	:	4/13/2016
<b>Date of previous issue</b>	:	4/11/2016
<b>Version</b>	:	2.02
<b>Key to abbreviations</b>	:	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

### Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to

## Section 16. Other information

determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

*Date of issue/Date of revision*

: 4/13/2016

*Date of previous issue*

: 4/11/2016

*Version* : 2.02

11/11

# SAFETY DATA SHEET

B65V720

## Section 1. Identification

**Product name** : Waterbased ACROLON® 100 HS Waterbased Urethane (Part B)  
Hardener

**Product code** : B65V720

**Other means of identification** : Not available.

**Product type** : Liquid.

### Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

**Manufacturer** : THE SHERWIN-WILLIAMS COMPANY  
101 PROSPECT AVENUE, NW  
CLEVELAND, OHIO 44115

**Emergency telephone number of the company** : (216) 566-2917

**Product Information Telephone Number** : (800) 524-5979

**Regulatory Information Telephone Number** : (216) 566-2902

**Transportation Emergency Telephone Number** : (800) 424-9300

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 3  
ACUTE TOXICITY (inhalation) - Category 3  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
RESPIRATORY SENSITIZATION - Category 1  
SKIN SENSITIZATION - Category 1

### GHS label elements

**Hazard pictograms** :



**Signal word**

**Hazard statements**

: Danger  
: Flammable liquid and vapor.  
Toxic if inhaled.  
Causes serious eye irritation.  
Causes skin irritation.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.

### Precautionary statements

**Date of issue/Date of revision**

: 3/24/2015. **Date of previous issue**

: No previous validation.

**Version** : 1

1/12

## Section 2. Hazards identification

<b>Prevention</b>	: Wear protective gloves. Wear eye or face protection. In case of inadequate ventilation wear respiratory protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
<b>Response</b>	: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
<b>Storage</b>	: Store locked up. Store in a well-ventilated place. Keep cool.
<b>Disposal</b>	Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	VAPOR AND SPRAY MIST HARMFUL. Gives off harmful vapor of solvents and isocyanates. DO NOT USE IF YOU HAVE CHRONIC (LONG-TERM) LUNG OR BREATHING PROBLEMS, OR IF YOU HAVE EVER HAD A REACTION TO ISOCYANATES. USE ONLY WITH ADEQUATE VENTILATION. WHERE OVERSPRAY IS PRESENT, A POSITIVE PRESSURE AIR SUPPLIED RESPIRATOR (NIOSH approved) SHOULD BE WORN TO PREVENT EXPOSURE. IF UNAVAILABLE, AN APPROPRIATE PROPERLY FITTED APPROVED NIOSH VAPOR/PARTICULATE RESPIRATOR MAY BE EFFECTIVE. Follow directions for respirator use. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. If you have any breathing problems during use, LEAVE THE AREA and get fresh air. If problems remain or happen later, IMMEDIATELY call a doctor - If not available get emergency medical treatment. Have this label with you. DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. FOR INDUSTRIAL USE ONLY. Please refer to the SDS for additional information. Do not transfer contents to other containers for storage.
<b>Hazards not otherwise classified</b>	: None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

### CAS number/other identifiers

Ingredient name	% by weight	CAS number
Hexamethylene Diisocyanate Polymer	83.5	28182-81-2
n-Butyl Acetate	16.3	123-86-4
Hexamethylene Diisocyanate (max.)	0.2	822-06-0

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.

**Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**Inhalation** : Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact** : Causes skin irritation. May cause an allergic skin reaction.

**Ingestion** : Irritating to mouth, throat and stomach.

#### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

**Inhalation** : Adverse symptoms may include the following:  
wheezing and breathing difficulties  
asthma

**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

**Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## Section 4. First aid measures

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 6. Accidental release measures

### Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

#### Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
n-Butyl Acetate	<b>ACGIH TLV (United States, 4/2014).</b> TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes. <b>NIOSH REL (United States, 10/2013).</b> TWA: 150 ppm 10 hours. TWA: 710 mg/m <sup>3</sup> 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m <sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 2/2013).</b> TWA: 150 ppm 8 hours. TWA: 710 mg/m <sup>3</sup> 8 hours.
Hexamethylene Diisocyanate (max.)	<b>ACGIH TLV (United States, 4/2014).</b> TWA: 0.005 ppm 8 hours. TWA: 0.03 mg/m <sup>3</sup> 8 hours.

## Section 8. Exposure controls/personal protection

### NIOSH REL (United States, 10/2013).

TWA: 0.005 ppm 10 hours.

TWA: 0.035 mg/m<sup>3</sup> 10 hours.

CEIL: 0.02 ppm 10 minutes.

CEIL: 0.14 mg/m<sup>3</sup> 10 minutes.

### OSHA PEL (United States, 2/2013).

#### Absorbed through skin.

TWA: 5 mg/m<sup>3</sup>, (as CN) 8 hours.

#### Appropriate engineering controls

- Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### Environmental exposure controls

- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

#### Individual protection measures

##### Hygiene measures

- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

##### Eye/face protection

- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

##### Skin protection

###### Hand protection

- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

###### Body protection

- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

###### Other skin protection

- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

###### Respiratory protection

- Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Not available.
<b>Odor</b>	: Not available.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: 7
<b>Melting point</b>	: Not available.
<b>Boiling point</b>	: 123°C (253.4°F)
<b>Flash point</b>	: Closed cup: 41°C (105.8°F) [Pensky-Martens Closed Cup]
<b>Evaporation rate</b>	: 1 (butyl acetate = 1)
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Lower: 1.38% Upper: 7.6%
<b>Vapor pressure</b>	: 0.18 kPa (1.333 mm Hg) [at 20°C]
<b>Vapor density</b>	: 4 [Air = 1]
<b>Relative density</b>	: 1.1
<b>Solubility</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Kinematic (room temperature): >0.07 cm <sup>2</sup> /s (>7 cSt) Kinematic (40°C (104°F)): >0.07 cm <sup>2</sup> /s (>7 cSt)
<b>Aerosol product</b>	
<b>Heat of combustion</b>	: 0.000004581 kJ/g

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
<b>Incompatible materials</b>	: Reactive or incompatible with the following materials: oxidizing materials
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Hexamethylene Diisocyanate Polymer	LC50 Inhalation Vapor	Rat	18500 mg/m <sup>3</sup>	1 hours
n-Butyl Acetate	LC50 Inhalation Gas. LD50 Dermal	Rat Rabbit	390 ppm >17600 mg/kg	4 hours -
Hexamethylene Diisocyanate (max.)	LD50 Oral LC50 Inhalation Dusts and mists	Rat Rat	10768 mg/kg 124 mg/m <sup>3</sup>	- 4 hours

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Hexamethylene Diisocyanate Polymer	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
n-Butyl Acetate	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Hexamethylene Diisocyanate (max.)	Category 3	Not applicable.	Respiratory tract irritation

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

#### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**Inhalation** : Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact** : Causes skin irritation. May cause an allergic skin reaction.

**Ingestion** : Irritating to mouth, throat and stomach.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

**Inhalation** : Adverse symptoms may include the following:  
wheezing and breathing difficulties  
asthma

**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

**Ingestion** : No specific data.

#### Delayed and immediate effects and also chronic effects from short and long term exposure

##### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

##### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

##### Potential chronic health effects

Not available.

**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

#### Numerical measures of toxicity

##### Acute toxicity estimates

Route	ATE value
Inhalation (gases)	2387.7 ppm
Inhalation (vapors)	11.08 mg/l

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
n-Butyl Acetate	Acute LC50 32000 µg/l Marine water	Crustaceans - Artemia salina - Nauplii Fish - Pimephales promelas	48 hours
	Acute LC50 18000 µg/l Fresh water		96 hours

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n-Butyl Acetate	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Hexamethylene Diisocyanate (max.)	-	57.63	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

### Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Not regulated.	Not regulated.	UN1263	UN1263	UN1263
UN proper shipping name	-	-	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
Transport hazard class(es)	-	-	3 	3 	3 

## Section 14. Transport information

Packing group	-	-	III	III	III
Environmental hazards	No.	No.	No.	No.	No.
Additional information	<u>Special provisions</u> Not Applicable	<u>Special provisions</u> Not Applicable	<u>Special provisions</u> (ERG#128)	<u>Special provisions</u> Not Applicable	<u>Emergency schedules (EmS)</u> F-E, S-E

**Special precautions for user :** Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations :**  
[State regulations](#)

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		2
Physical hazards		0

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

## Section 16. Other information

### Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.