

# SAFETY DATA SHEET

B58V620

## Section 1. Identification

**Product name** : MACROPOXY® 646-100 Fast Cure Epoxy (Part B)  
Hardener

**Product code** : B58V620

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

**Product type** : Liquid.

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

Paint or paint related material.

**Manufacturer** : THE SHERWIN-WILLIAMS COMPANY  
101 W. Prospect Avenue  
Cleveland, OH 44115

**Emergency telephone number of the company** : US / Canada: (216) 566-2917  
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

**Product Information Telephone Number** : US / Canada: (800) 524-5979  
Mexico: Not Available

**Regulatory Information Telephone Number** : US / Canada: (216) 566-2902  
Mexico: Not Available

**Transportation Emergency Telephone Number** : US / Canada: (800) 424-9300  
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

## 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  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 1A  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1  
Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 71.9%  
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 81.9%  
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 77.6%

**GHS label elements**

**Hazard pictograms** :



**Signal word** : Danger

**Date of issue/Date of revision** : 10/30/2018 **Date of previous issue** : 10/10/2018

B58V620 MACROPOXY® 646-100 Fast Cure Epoxy (Part B)  
Hardener

**Version** : 9 1/17

**SHW-85-NA-GHS-US**

## Section 2. Hazards identification

**Hazard statements** : Highly flammable liquid and vapor.  
Causes serious eye irritation.  
Causes skin irritation.  
May cause an allergic skin reaction.  
May cause cancer.  
Causes damage to organs through prolonged or repeated exposure.

### 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. 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. 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.

**Response** : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. 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.

**Storage** : Store locked up. Store in a well-ventilated place. Keep cool.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

### Supplemental label elements

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. Keep out of reach of children. Do not transfer contents to other containers for storage.

**Hazards not otherwise classified** : 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
Crystalline Silica, respirable powder	≥50 - ≤75	14808-60-7
Epoxy Polymer	≥10 - ≤25	25068-38-6
Acetone	≤9.6	67-64-1
Methyl Isobutyl Ketone	≤5	108-10-1
Xylene mixed isomers	≤3	1330-20-7
Ethylbenzene	<1	100-41-4
Formaldehyde (max.)	<0.1	50-00-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

## Section 3. Composition/information on ingredients

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 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. 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.
- 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** : 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** : 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.

## Section 4. First aid measures

- 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** : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. 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.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
halogenated compounds  
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. 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.

## 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** : Contains a formaldehyde-based resin which, under certain conditions of use, may release formaldehyde. 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. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits (OSHA United States)

<b>Ingredient name</b>	<b>Exposure limits</b>
Crystalline Silica, respirable powder	<b>OSHA PEL Z3 (United States, 6/2016).</b> TWA: 250 mppcf / (%SiO <sub>2</sub> +5) 8 hours. Form: Respirable TWA: 10 mg/m <sup>3</sup> / (%SiO <sub>2</sub> +2) 8 hours. Form: Respirable <b>OSHA PEL (United States, 6/2016).</b> TWA: 50 µg/m <sup>3</sup> 8 hours. Form: Respirable dust <b>ACGIH TLV (United States, 3/2017).</b> TWA: 0.025 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction <b>NIOSH REL (United States, 10/2016).</b> TWA: 0.05 mg/m <sup>3</sup> 10 hours. Form: respirable dust

## Section 8. Exposure controls/personal protection

Epoxy Polymer  
Acetone

None.

**ACGIH TLV (United States, 3/2017).**

TWA: 250 ppm 8 hours.

STEL: 500 ppm 15 minutes.

**NIOSH REL (United States, 10/2016).**

TWA: 250 ppm 10 hours.

TWA: 590 mg/m<sup>3</sup> 10 hours.

**OSHA PEL (United States, 6/2016).**

TWA: 1000 ppm 8 hours.

TWA: 2400 mg/m<sup>3</sup> 8 hours.

**ACGIH TLV (United States, 3/2017).**

TWA: 20 ppm 8 hours.

STEL: 75 ppm 15 minutes.

**NIOSH REL (United States, 10/2016).**

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.

**OSHA PEL (United States, 6/2016).**

TWA: 100 ppm 8 hours.

TWA: 410 mg/m<sup>3</sup> 8 hours.

**ACGIH TLV (United States, 3/2017).**

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.

**OSHA PEL (United States, 6/2016).**

TWA: 100 ppm 8 hours.

TWA: 435 mg/m<sup>3</sup> 8 hours.

**ACGIH TLV (United States, 3/2017).**

TWA: 20 ppm 8 hours.

**NIOSH REL (United States, 10/2016).**

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.

**OSHA PEL (United States, 6/2016).**

TWA: 100 ppm 8 hours.

TWA: 435 mg/m<sup>3</sup> 8 hours.

**OSHA PEL Z2 (United States, 2/2013).**

TWA: 0.75 ppm 8 hours.

STEL: 2 ppm 15 minutes.

**NIOSH REL (United States, 10/2016).**

TWA: 0.016 ppm 10 hours.

CEIL: 0.1 ppm 15 minutes.

**OSHA PEL (United States, 6/2016).**

TWA: 0.75 ppm 8 hours.

STEL: 2 ppm 15 minutes.

**ACGIH TLV (United States, 3/2017). Skin sensitizer. Inhalation sensitizer.**

STEL: 0.3 ppm 15 minutes.

TWA: 0.1 ppm 8 hours.

Methyl Isobutyl Ketone

Xylene mixed isomers

Ethylbenzene

Formaldehyde (max.)

### [Occupational exposure limits \(Canada\)](#)

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Crystalline Silica, respirable powder	<p><b>CA British Columbia Provincial (Canada, 6/2017).</b> TWA: 0.025 mg/m<sup>3</sup> 8 hours. Form: Respirable</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b> TWAEV: 0.1 mg/m<sup>3</sup> 8 hours. Form: Respirable dust.</p> <p><b>CA Ontario Provincial (Canada, 7/2015).</b> TWA: 0.1 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction.</p> <p><b>CA Alberta Provincial (Canada, 4/2009).</b> 8 hrs OEL: 0.025 mg/m<sup>3</sup> 8 hours. Form: Respirable particulate</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> TWA: 0.05 mg/m<sup>3</sup> 8 hours. Form: respirable fraction</p>
Acetone	<p><b>CA Alberta Provincial (Canada, 4/2009).</b> 8 hrs OEL: 1200 mg/m<sup>3</sup> 8 hours. 15 min OEL: 1800 mg/m<sup>3</sup> 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes.</p> <p><b>CA British Columbia Provincial (Canada, 6/2017).</b> TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 7/2015).</b> TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b> TWAEV: 500 ppm 8 hours. TWAEV: 1190 mg/m<sup>3</sup> 8 hours. STEV: 1000 ppm 15 minutes. STEV: 2380 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.</p>
Methyl Isobutyl Ketone	<p><b>CA Alberta Provincial (Canada, 4/2009).</b> 8 hrs OEL: 205 mg/m<sup>3</sup> 8 hours. 8 hrs OEL: 50 ppm 8 hours. 15 min OEL: 75 ppm 15 minutes. 15 min OEL: 307 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA British Columbia Provincial (Canada, 6/2017).</b> TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 7/2015).</b> TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b> TWAEV: 50 ppm 8 hours. TWAEV: 205 mg/m<sup>3</sup> 8 hours. STEV: 75 ppm 15 minutes. STEV: 307 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 75 ppm 15 minutes. TWA: 50 ppm 8 hours.</p>

## Section 8. Exposure controls/personal protection

Xylene mixed isomers

**CA Alberta Provincial (Canada, 4/2009).**  
 8 hrs OEL: 100 ppm 8 hours.  
 15 min OEL: 651 mg/m<sup>3</sup> 15 minutes.  
 15 min OEL: 150 ppm 15 minutes.  
 8 hrs OEL: 434 mg/m<sup>3</sup> 8 hours.

**CA British Columbia Provincial (Canada, 6/2017).**

TWA: 100 ppm 8 hours.  
 STEL: 150 ppm 15 minutes.

**CA Quebec Provincial (Canada, 1/2014).**

TWAEV: 100 ppm 8 hours.  
 TWAEV: 434 mg/m<sup>3</sup> 8 hours.  
 STEV: 150 ppm 15 minutes.  
 STEV: 651 mg/m<sup>3</sup> 15 minutes.

**CA Ontario Provincial (Canada, 7/2015).**

STEL: 150 ppm 15 minutes.  
 TWA: 100 ppm 8 hours.

**CA Saskatchewan Provincial (Canada, 7/2013).**

STEL: 150 ppm 15 minutes.  
 TWA: 100 ppm 8 hours.

Ethylbenzene

**CA Alberta Provincial (Canada, 4/2009).**

8 hrs OEL: 100 ppm 8 hours.  
 8 hrs OEL: 434 mg/m<sup>3</sup> 8 hours.  
 15 min OEL: 543 mg/m<sup>3</sup> 15 minutes.  
 15 min OEL: 125 ppm 15 minutes.

**CA British Columbia Provincial (Canada, 6/2017).**

TWA: 20 ppm 8 hours.

**CA Ontario Provincial (Canada, 7/2015).**

TWA: 20 ppm 8 hours.

**CA Quebec Provincial (Canada, 1/2014).**

TWAEV: 100 ppm 8 hours.  
 TWAEV: 434 mg/m<sup>3</sup> 8 hours.  
 STEV: 125 ppm 15 minutes.  
 STEV: 543 mg/m<sup>3</sup> 15 minutes.

**CA Saskatchewan Provincial (Canada, 7/2013).**

STEL: 125 ppm 15 minutes.  
 TWA: 100 ppm 8 hours.

Formaldehyde (max.)

**CA Alberta Provincial (Canada, 4/2009).**

C: 1.3 mg/m<sup>3</sup>  
 8 hrs OEL: 0.75 ppm 8 hours.  
 8 hrs OEL: 0.9 mg/m<sup>3</sup> 8 hours.  
 C: 1 ppm

**CA British Columbia Provincial (Canada, 6/2017). Skin sensitizer. Inhalation sensitizer.**

TWA: 0.3 ppm 8 hours.  
 C: 1 ppm

**CA Ontario Provincial (Canada, 7/2015).**

C: 1.5 ppm  
 STEL: 1 ppm 15 minutes.

**CA Quebec Provincial (Canada, 1/2014).**

STEV: 2 ppm 15 minutes.  
 STEV: 3 mg/m<sup>3</sup> 15 minutes.

**CA Saskatchewan Provincial (Canada, 7/2013). Skin sensitizer.**

CEIL: 0.3 ppm

### Occupational exposure limits (Mexico)



## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Crystalline Silica, respirable powder	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 0.025 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction
Acetone	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes.
Methyl Isobutyl Ketone	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 50 ppm 8 hours. STEL: 75 ppm 15 minutes.
Xylene mixed isomers	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Ethylbenzene	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 20 ppm 8 hours.
Formaldehyde (max.)	<b>NOM-010-STPS-2014 (Mexico, 4/2016). Skin sensitizer.</b> CEIL: 0.3 ppm

**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.

## Section 8. Exposure controls/personal protection

**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/freezing point** : Not available.  
**Boiling point/boiling range** : 55°C (131°F)  
**Flash point** : Closed cup: 7°C (44.6°F) [Pensky-Martens Closed Cup]  
**Evaporation rate** : 5.6 (butyl acetate = 1)  
**Flammability (solid, gas)** : Not available.  
**Lower and upper explosive (flammable) limits** : Lower: 1%  
Upper: 12.8%  
**Vapor pressure** : 24 kPa (180 mm Hg) [at 20°C]  
**Vapor density** : 2 [Air = 1]  
**Relative density** : 1.59  
**Solubility** : Not available.  
**Partition coefficient: n-octanol/water** : Not available.  
**Auto-ignition temperature** : Not available.  
**Decomposition temperature** : Not available.  
**Viscosity** : Kinematic (40°C (104°F)): >0.205 cm<sup>2</sup>/s (>20.5 cSt)  
**Molecular weight** : Not applicable.

### Aerosol product

**Heat of combustion** : 3.86 kJ/g

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : 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.

**Incompatible materials** : Reactive or incompatible with the following materials:  
oxidizing materials

**Hazardous decomposition products** : 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
Acetone	LD50 Oral	Rat	5800 mg/kg	-
Methyl Isobutyl Ketone	LD50 Oral	Rat	2080 mg/kg	-
Xylene mixed isomers	LC50 Inhalation Gas. LD50 Oral	Rat Rat	5000 ppm 4300 mg/kg	4 hours -
Ethylbenzene	LD50 Dermal LD50 Oral	Rabbit Rat	>5000 mg/kg 3500 mg/kg	- -
Formaldehyde (max.)	LC50 Inhalation Gas. LD50 Dermal LD50 Oral	Rat Rabbit Rat	250 ppm 270 mg/kg 100 mg/kg	4 hours - -

### 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	-
Acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 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	-
Xylene mixed isomers	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	-
Formaldehyde (max.)	Eyes - Mild irritant	Human	-	6 minutes 1 parts per million	-
	Eyes - Severe irritant	Rabbit	-	24 hours 750 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	750 Micrograms	-
	Skin - Mild irritant	Human	-	72 hours 150 Micrograms	-
	Skin - Severe irritant	Human	-	Intermittent 0.01 Percent	-
	Skin - Mild irritant	Rabbit	-	540 milligrams	-

## Section 11. Toxicological information

	Skin - Moderate irritant	Rabbit	-	24 hours 50 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 milligrams	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
Crystalline Silica, respirable powder	-	1	Known to be a human carcinogen.
Methyl Isobutyl Ketone	-	2B	-
Xylene mixed isomers	-	3	-
Ethylbenzene	-	2B	-
Formaldehyde (max.)	+	1	Known to be a human carcinogen.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Methyl Isobutyl Ketone	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Xylene mixed isomers	Category 3	Not applicable.	Respiratory tract irritation
Ethylbenzene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Formaldehyde (max.)	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Crystalline Silica, respirable powder	Category 1	Inhalation	Not determined
Acetone	Category 2	Not determined	Not determined
Methyl Isobutyl Ketone	Category 2	Not determined	Not determined
Xylene mixed isomers	Category 2	Not determined	Not determined
Ethylbenzene	Category 2	Not determined	Not determined
Formaldehyde (max.)	Category 2	Not determined	Not determined

### Aspiration hazard

Name	Result
Xylene mixed isomers Ethylbenzene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

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

**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** : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  
**Carcinogenicity** : May cause 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**

<b>Route</b>	<b>ATE value</b>
Oral	11353.9 mg/kg
Dermal	10802.2 mg/kg
Inhalation (gases)	60625.3 ppm
Inhalation (vapors)	57.87 mg/l

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Acetone	Acute EC50 7200000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 6900 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
Methyl Isobutyl Ketone	Chronic NOEC 0.1 mg/l Fresh water	Fish - Fundulus heteroclitus	4 weeks
	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
Xylene mixed isomers	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
Formaldehyde (max.)	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 3.48 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 0.788 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 12.98 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 5800 µg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 1.41 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 0.005 mg/l Marine water	Algae - Isochrysis galbana - Exponential growth phase	96 hours
Chronic NOEC 953.9 ppm Fresh water	Fish - Oncorhynchus tshawytscha - Egg	43 days	

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily
Methyl Isobutyl Ketone	-	-	Readily
Xylene mixed isomers	-	-	Readily
Ethylbenzene	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Epoxy Polymer	-	31	low
Xylene mixed isomers	-	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.






Date of issue/Date of revision	: 10/30/2018	Date of previous issue	: 10/10/2018	Version	: 9	14/17
B58V620	MACROPOXY® 646-100 Fast Cure Epoxy (Part B) Hardener				SHW-85-NA-GHS-US	

## 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	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	II	II	II	II	II
Environmental hazards	No.	No.	No.	No.	No.
Additional information	-  <u>ERG No.</u> 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).  <u>ERG No.</u> 128	-  <u>ERG No.</u> 128	-	<u>Emergency schedules</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 and the IBC Code** : Not available.

**Proper shipping name** : Not available.  
**Ship type** : Not available.  
**Pollution category** : Not available.

**Date of issue/Date of revision** : 10/30/2018 **Date of previous issue** : 10/10/2018

**Version** : 9 15/17

B58V620 MACROPOXY® 646-100 Fast Cure Epoxy (Part B)  
Hardener

SHW-85-NA-GHS-US

# 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.

## International regulations

### International lists

- : **Australia inventory (AICS):** Not determined.
- : **China inventory (IECSC):** Not determined.
- : **Japan inventory (ENCS):** Not determined.
- : **Japan inventory (ISHL):** Not determined.
- : **Korea inventory (KECI):** Not determined.
- : **Malaysia Inventory (EHS Register):** Not determined.
- : **New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- : **Philippines inventory (PICCS):** Not determined.
- : **Taiwan Chemical Substances Inventory (TCSI):** Not determined.
- : **Thailand inventory:** Not determined.
- : **Turkey inventory:** Not determined.
- : **Vietnam inventory:** Not determined.

# 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. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

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 and the associated label are not required on SDSs or products leaving a facility 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 trademark and service mark of the American Coatings Association, Inc.

## Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 1A	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1	Calculation method

## History

**Date of printing** : 10/30/2018

**Date of issue/Date of revision** : 10/30/2018

**Date of previous issue** : 10/10/2018

**Version** : 9

**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



## Section 16. Other information

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 the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. 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.