

1 . Product and company identification

Trade name	: Amazing GOOP Marine Epoxy Paste Hardener
Supplier	: Eclectic Products Inc. 1075 Arrowsmith Eugene, OR 97402 541-484-9621
Material uses	: Consumer products: Consumer product.
Manufacturer	: Eclectic Products Inc. 1075 Arrowsmith Eugene, OR 97402 541-484-9621
Code	: 1085341
Validation date	: 3/4/2011.
Print date	: 3/4/2011.
Responsible name	: Regulatory Compliance
In case of emergency	: CALL INFOTRAC 800-535-5053 001-352-323-3500

2 . Hazards identification

Physical state	: Liquid. [Paste.]
Emergency overview	: DANGER ! CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS. HARMFUL IF INHALED. MAY CAUSE ALLERGIC SKIN REACTION. Toxic by inhalation. Corrosive to the eyes, skin and respiratory system. Causes burns. May cause sensitization by skin contact. Do not breathe vapor or mist. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
Routes of entry	: Dermal contact. Eye contact. Inhalation.
<u>Potential acute health effects</u>	
Inhalation	: Toxic by inhalation. Corrosive to the respiratory system.
Ingestion	: May cause burns to mouth, throat and stomach.
Skin	: Corrosive to the skin. Causes burns. May cause sensitization by skin contact.
Eyes	: Corrosive to eyes. Causes burns.
<u>Potential chronic health effects</u>	
Chronic effects	: No known significant effects or critical hazards.
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.
<u>Over-exposure signs/symptoms</u>	
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Ingestion	: Adverse symptoms may include the following: stomach pains
Skin	: Adverse symptoms may include the following: pain or irritation redness blistering may occur

2 . Hazards identification

Eyes : Adverse symptoms may include the following:
pain
watering
redness

Medical conditions aggravated by over-exposure : Pre-existing respiratory and skin disorders may be aggravated by over-exposure to this product.

See toxicological information (section 11)

3 . Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Aliphatic Amine	Proprietary	30-60
Crystalline Silica	14808-60-7	<1

There are no ingredients or 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.

4 . First aid measures

Eye contact : Get medical attention immediately. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Chemical burns must be treated promptly by a physician.

Skin contact : Get medical attention immediately. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing 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.

Inhalation : Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. 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.

Ingestion : Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. 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.

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 or wear gloves.

Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5 . Fire-fighting measures

- Flammability of the product** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
 - Not suitable** : None known.
- Special exposure hazards** : 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.
- Hazardous combustion products** : No specific data.
- 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.

6 . Accidental release measures

- Personal precautions** : 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 (see section 8).
- 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).
- 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.
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). 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. Persons with a history of skin sensitization problems 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. 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.
- Storage** : 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. 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.

8 . Exposure controls/personal protection

Product name

Crystalline Silica

Exposure limits

ACGIH TLV (United States, 1/2009). Notes: Respirable fraction; see Appendix C, paragraph C.

TWA: 0.025 mg/m³ 8 hour(s). Form: Respirable fraction

NIOSH REL (United States, 6/2008). Notes: See Appendix A - NIOSH Potential Occupational Carcinogen

TWA: 0.05 mg/m³ 10 hour(s). Form: respirable dust

OSHA PEL 1989 (United States, 3/1989). Notes: as quartz

TWA: 0.1 mg/m³, (as quartz) 8 hour(s). Form: Respirable dust

OSHA PEL Z3 (United States, 9/2005).

TWA: 10 mg/m³ 8 hour(s). Form: Respirable

TWA: 30 mg/m³ 8 hour(s). Form: Total dust.

TWA: 250 mppcf 8 hour(s). Form: Respirable

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : 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.
- 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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory

- : 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.

Hands

- : 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.

Eyes

- : 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.

Skin

- : 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.

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.

Precautions to be taken in use:

- : This product may contain materials classified as nuisance particulates, which may be present at hazardous levels only during sanding or abrading of the dried film. Wear a dust/mist respirator approved for dust when dusts are generated from sanding or abrading the dried film.

9 . Physical and chemical properties

- Physical state** : Liquid. [Paste.]
- Flash point** : Open cup: >93°C (>199.4°F)
- Color** : White.
- Odor** : Ammoniacal.
- Boiling/condensation point** : >100°C (>212°F)
- Specific gravity** : 1.05
- Estimated Vapor Density** : >1 [Air = 1]
- VOC %** : 0%
- Evaporation rate** : >1 (Butyl acetate. = 1)

9 . Physical and chemical properties

Solubility : Partially soluble in the following materials: water.

10 . Stability and reactivity

- Stability** : The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous polymerization** : Will not occur.
- Conditions of reactivity** : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.

11 . Toxicological information

Acute toxicity

<u>Product/ingredient name</u>	<u>Result</u>	<u>Species</u>	<u>Dose</u>	<u>Exposure</u>
☑ Crystalline Silica	LDLo	Rat	250 mg/kg	-
	Intratracheal			
	LDLo	Rat	>200 mg/kg	-
	Intratracheal			
	LDLo Intravenous	Rat	90 mg/kg	-
	TDLo	Rat	100 mg/kg	-
	Intratracheal			
	TDLo	Rat	50 mg/kg	-
	Intratracheal			
	TDLo	Rat	30 mg/kg	-
	Intratracheal			
	TDLo	Rat	25 mg/kg	-
	Intratracheal			
	TDLo	Rat	15.69 mg/kg	-
	Intratracheal			
	TDLo	Rat	10 mg/kg	-
	Intratracheal			
	TDLo	Rat	10 mg/kg	-
	Intratracheal			
	TDLo	Rat	5 mg/kg	-
	Intratracheal			
	TDLo	Rat	1.5 mg/kg	-
	Intratracheal			
	TDLo	Rat	1 mg/kg	-
	Intratracheal			
	TDLo	Rat	1 mg/kg	-
	Intratracheal			
	TDLo	Rat	1250 ug/kg	-
	Intratracheal			
	TDLo	Rat	150 mg/kg	-
	Intratracheal			
	TDLo	Rat	150 mg/kg	-
	Intratracheal			
	TDLo Oral	Rat	120 g/kg	-

Carcinogenicity

Conclusion/Summary

Limestone and natural iron oxide used in making this product contain crystalline silica as an impurity. Repeated, prolonged exposure to respirable crystalline dusts may increase the risk of developing a disabling lung disease called silicosis. The International Agency for Research on Cancer (IARC) reports there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica from occupational sources. Based on studies of workers in industrial and occupational settings, The National Toxicology Program (NTP) Ninth Report on Carcinogens lists crystalline silica (respirable) as a substance known to be a carcinogen to humans.

11 . Toxicological information

Classification

Product/ingredient name

Crystalline Silica

ACGIH

A2

IARC

1

EPA

-

NIOSH

+

NTP

Proven.

OSHA

-

IDLH : Not available.

Synergistic products : Not available.

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Conclusion/Summary : Not available.

Biodegradability

Conclusion/Summary : Not available.




13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not available.	Consumer commodity	ORM-D	-		Remarks < 1 . 3 gal Consumer commodity ORM-D
TDG Classification	1760	CORROSIVE LIQUID, N.O.S. (Aliphatic Amine)	8	III		-
IMDG Class	1760	CORROSIVE LIQUID, N.O.S. (Aliphatic Amine)	8	III		Emergency schedules (EmS) F-A, S-B Remarks Limited quantity
IATA-DGR Class	8000	Consumer commodity	9	-		-

PG* : Packing group

15 . Regulatory information

United States inventory (TSCA 8b): All components are listed or exempted.
SARA 311/312 - Acute, Chronic

California Prop. 65

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

Ingredient name

Crystalline Silica

Cancer

Yes.

Reproductive

No.

Canada

WHMIS (Canada) : Class D-2A: Material causing other toxic effects (Very toxic).
Class E: Corrosive material

Canadian lists : **CEPA Toxic substances:** None of the components are listed.
Canadian NPRI: None of the components are listed.

Canada inventory : **Canada inventory:** Not determined.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Mexico

Classification :



EU regulations

Risk phrases : This product is not classified according to EU legislation.

International regulations

International lists : **Australia inventory (AICS):** Not determined.
China inventory (IECSC): Not determined.
Korea inventory (KECI): Not determined.
Philippines inventory (PICCS): Not determined.
Japan inventory (ENCS): Not determined.
Europe inventory: Not determined.

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 MSDSs 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.

National Fire Protection Association (U.S.A.) :



16 . Other information

Date of printing : 3/4/2011.

Date of issue : 3/4/2011.

Date of previous issue : 5/14/2010.

Version : 1.03

☑ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

1 . Product and company identification

Trade name	: Amazing GOOP Marine Epoxy Paste Resin
Supplier	: Eclectic Products Inc. 1075 Arrowsmith Eugene, OR 97402 541-484-9621
Material uses	: Consumer products: Consumer product.
Manufacturer	: Eclectic Products Inc. 1075 Arrowsmith Eugene, OR 97402 541-484-9621
Code	: 1085340
Validation date	: 12/22/2011.
Print date	: 12/22/2011.
Responsible name	: Regulatory Compliance
<u>In case of emergency</u>	: CALL INFOTRAC 800-535-5053 001-352-323-3500

2 . Hazards identification

Physical state	: Liquid. [Paste.]
Emergency overview	: WARNING ! ☒ CAUSES EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. ☒ Severely irritating to eyes. Irritating to skin. May cause sensitization by skin contact. Do not breathe vapor or mist. Do not get in eyes or on skin or clothing. Wash thoroughly after handling.
Routes of entry	: Dermal contact. Eye contact. Inhalation.

Potential acute health effects

Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin	: ☒ Irritating to skin. May cause sensitization by skin contact.
Eyes	: Severely irritating to eyes. Risk of serious damage to eyes.

Potential chronic health effects

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

Over-exposure signs/symptoms

Inhalation	: No specific data.
Ingestion	: No specific data.
Skin	: Adverse symptoms may include the following: irritation redness
Eyes	: Adverse symptoms may include the following: pain or irritation watering redness

2. Hazards identification

Medical conditions aggravated by over-exposure : Pre-existing skin disorders may be aggravated by over-exposure to this product.

See toxicological information (section 11)

3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Bisphenol A/Epichlorohydrin Epoxy Resin	25068-38-6	10-30
Bisphenol A/Epichlorohydrin Epoxy Resin	Mixture	10-30
Crystalline Silica	14808-60-7	<1

There are no ingredients or 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.

4. First aid measures

- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention. Chemical burns must be treated promptly by a physician.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing 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.
- Inhalation** : Move exposed person to fresh air. Keep person warm and at rest. 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 adverse health effects persist or are severe. 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.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. 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 if adverse health effects persist or are severe. 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.
- 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 or wear gloves.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product : In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.

Special exposure hazards : 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.

Hazardous combustion products : No specific data.

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.

6 . Accidental release measures

- Personal precautions** : 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 (see section 8).
- 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).
- 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.
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). 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. Persons with a history of skin sensitization problems 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. 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.
- Storage** : 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. 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.

8 . Exposure controls/personal protection

Product name

Crystalline Silica

Exposure limits

ACGIH TLV (United States, 1/2009). Notes: Respirable fraction; see Appendix C, paragraph C.

TWA: 0.025 mg/m³ 8 hour(s). Form: Respirable fraction

NIOSH REL (United States, 6/2008). Notes: See Appendix A - NIOSH Potential Occupational Carcinogen

TWA: 0.05 mg/m³ 10 hour(s). Form: respirable dust

OSHA PEL 1989 (United States, 3/1989). Notes: as quartz

TWA: 0.1 mg/m³, (as quartz) 8 hour(s). Form: Respirable dust

OSHA PEL Z3 (United States, 9/2005).

TWA: 10 mg/m³ 8 hour(s). Form: Respirable

TWA: 30 mg/m³ 8 hour(s). Form: Total dust.

TWA: 250 mppcf 8 hour(s). Form: Respirable

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Respiratory** : 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.
- Hands** : 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.
- Eyes** : 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.
- Skin** : 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.
- 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.
- Precautions to be taken in use:** : This product may contain materials classified as nuisance particulates, which may be present at hazardous levels only during sanding or abrading of the dried film. Wear a dust/mist respirator approved for dust when dusts are generated from sanding or abrading the dried film.

9 . Physical and chemical properties

- Physical state** : Liquid. [Paste.]
- Flash point** : Closed cup: >93.333°C (>200°F) [Setaflash.]
- Color** : White.
- Odor** : Not available.
- Boiling/condensation point** : >100°C (>212°F)
- Specific gravity** : 1.22
- Estimated Vapor Density** : >1 [Air = 1]
- VOC %** : 0%
- Evaporation rate** : >1 (Butyl acetate. = 1)
- Solubility** : Partially soluble in the following materials: water.

10 . Stability and reactivity

- Stability** : The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous polymerization** : Will not occur.
- Conditions of reactivity** : Slightly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Bisphenol A/Epichlorohydrin Epoxy Resin	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	11400 mg/kg	-
Bisphenol A/Epichlorohydrin Epoxy Resin	LD50 Oral	Mouse	15600 mg/kg	-
	LD50 Oral	Rat	11400 mg/kg	-
Crystalline Silica	LDLo	Rat	250 mg/kg	-
	Intratracheal			
	LDLo	Rat	>200 mg/kg	-
	Intratracheal			
	LDLo Intravenous	Rat	90 mg/kg	-
	TDLo	Rat	100 mg/kg	-
	Intratracheal			
	TDLo	Rat	50 mg/kg	-
	Intratracheal			
	TDLo	Rat	30 mg/kg	-
	Intratracheal			
	TDLo	Rat	25 mg/kg	-
	Intratracheal			
	TDLo	Rat	15.69 mg/kg	-
	Intratracheal			
	TDLo	Rat	10 mg/kg	-
	Intratracheal			
	TDLo	Rat	10 mg/kg	-
	Intratracheal			
	TDLo	Rat	5 mg/kg	-
Intratracheal				
TDLo	Rat	1.5 mg/kg	-	
Intratracheal				
TDLo	Rat	1 mg/kg	-	
Intratracheal				
TDLo	Rat	1 mg/kg	-	
Intratracheal				
TDLo	Rat	1250 ug/kg	-	
Intratracheal				
TDLo	Rat	150 mg/kg	-	
Intratracheal				
TDLo	Rat	150 mg/kg	-	
Intratracheal				
TDLo Oral	Rat	120 g/kg	-	

Carcinogenicity

Conclusion/Summary

Limestone and natural iron oxide used in making this product contain crystalline silica as an impurity. Repeated, prolonged exposure to respirable crystalline dusts may increase the risk of developing a disabling lung disease called silicosis. The International Agency for Research on Cancer (IARC) reports there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica from occupational sources. Based on studies of workers in industrial and occupational settings, The National Toxicology Program (NTP) Ninth Report on Carcinogens lists crystalline silica (respirable) as a substance known to be a carcinogen to humans.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Crystalline Silica	A2	1	-	+	Proven.	-

IDLH : Not available.

Synergistic products : Not available.

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

<u>Product/ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Species</u>	<u>Exposure</u>
Bisphenol A/Epichlorohydrin Epoxy Resin	-	Acute EC50 220 mg/L	Algae - Algae.	96 hours

Conclusion/Summary : Not available.

Biodegradability

Conclusion/Summary : Not available.

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

<u>Regulatory information</u>	<u>UN number</u>	<u>Proper shipping name</u>	<u>Classes</u>	<u>PG*</u>	<u>Label</u>	<u>Additional information</u>
DOT Classification	Not regulated.	-	-	-		-
TDG Classification	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA-DGR Class	Not regulated.	-	-	-		-

PG* : Packing group

15 . Regulatory information

United States inventory (TSCA 8b): All components are listed or exempted.
SARA 311/312 - Acute, Chronic

California Prop. 65

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

<u>Ingredient name</u>	<u>Cancer</u>	<u>Reproductive</u>
Crystalline Silica	Yes.	No.

Canada

WHMIS (Canada) : Class D-2A: Material causing other toxic effects (Very toxic).

Canadian lists : **CEPA Toxic substances**: None of the components are listed.

Canadian NPRI: None of the components are listed.

Canada inventory : **Canada inventory**: Not determined.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Mexico

Classification :

15 . Regulatory information



EU regulations

Risk phrases : This product is not classified according to EU legislation.

International regulations

International lists : **Australia inventory (AICS):** Not determined.
China inventory (IECSC): Not determined.
Korea inventory (KECI): Not determined.
Philippines inventory (PICCS): Not determined.
Japan inventory (ENCS): Not determined.
Europe inventory: Not determined.

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 MSDSs 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.

National Fire Protection Association (U.S.A.) :



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☑ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.