MATERIAL SAFETY DATA SHEET

APCODUR EPOXY ZINC RICH PRIMER

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

Identification of the substance or mixture

3URGXFW QDPH : **APCODUR EPOXY ZINC RICH PRIMER**

Product code : 26240607

Chemical name : Not available.

Synonyms : Not available.

Chemical formula : Not applicable.

CAS number : Not applicable.

Use of the substance/mixture : Painting/Coating

Company/undertaking identification

Manufacturer : Asian Paints Ltd.
6A, Shantinagar.
Opp Hotel Grand Hyatt,
Santacruz (E), P.O. Box No. 6818,
Mumbai 400 055

Tel No. 091 22 39818000
Fax No. 091 22 39818888

Supplier : Asian Paints Ltd.
6A, Shantinagar.
Opp Hotel Grand Hyatt,
Santacruz (E), P.O. Box No. 6818,
Mumbai 400 055

Tel No. 091 22 39818000
Fax No. 091 22 39818888

e-mail address of person responsible for this SDS : aplmsds@asianpaints.com

Emergency telephone number (with hours of operation) : +091 22 39814000

2. HAZARDS IDENTIFICATION

Classification : Harmful, Dangerous for the environment

Risk phrases : R10- Flammable.
R20- Harmful by inhalation.
R38- Irritating to skin.
R43- May cause sensitization by skin contact.
R50- Very toxic to aquatic organisms.

Physical/chemical hazards : Flammable.

Human health hazards : Harmful by inhalation. Irritating to skin. May cause sensitization by skin contact.

Environmental hazards : Very toxic to aquatic organisms.

Additional hazards : None known.

See Section 11 for more detailed information on health effects and symptoms.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation : Mixture

Ingredient name	CAS number	%
zinc powder - zinc dust (stabilized)	7440-66-6	70 - 100
xylene	1330-20-7	5 - 15
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	25068-38-6	5 - 15
barium sulfate	7727-43-7	1 - 5
xylene	1330-20-7	1 - 5
reaction product: bisphenol-A-(epichlorhydrin);	25068-38-6	0 - 1

3. COMPOSITION/INFORMATION ON INGREDIENTS

epoxy resin (number average molecular weight ≤ 700)		
Silane, dichlorodimethyl-, reaction products with silica	68611-44-9	0 - 1
2-ethoxyethanol	110-80-5	0 - 1
methanol	67-56-1	0 - 1

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.

4. FIRST AID MEASURES

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 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. 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 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.

Skin contact : Flush contaminated skin with plenty of 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.

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 if irritation occurs.

See Section 11 for more detailed information on health effects and symptoms.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable : Recommended: alcohol-resistant foam, CO_2, powders, water spray.

Not suitable : Do not use water jet.

Special exposure hazards : Flammable liquid. 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.

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. This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
halogenated compounds
metal oxide/oxides

5. FIRE-FIGHTING MEASURES

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

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. 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 (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). Water polluting material. May be harmful to the environment if released in large quantities.

Methods for 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. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

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. Remove contaminated clothing and protective equipment before entering eating areas. 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 ingest. Avoid breathing vapor or mist. Avoid release to the environment. Refer to special instructions/safety data sheet. 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 non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage : 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. 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values

Ingredient name	Occupational exposure limits
xylene	**EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values** TWA: 50 ppm 8 hours. TWA: 221 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STELmgm³minutes
barium sulfate	**ACGIH TLV (United States, 3/2012).** TWA: 10 mg/m³ 8 hours.
xylene	**EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values** TWA: 50 ppm 8 hours. TWA: 221 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 442 mg/m³ 15 minutes.
2-ethoxyethanol	**EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values** TWA: 8 mg/m³ 8 hours. TWA: 2 ppm 8 hours.
methanol	**EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values** TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours.
Xylene	**ACGIH TLV (United States, 3/2012).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 655 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2010).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
barium sulfate	**ACGIH TLV (United States, 3/2012).** TWA: 10 mg/m³ 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust **NIOSH REL (United States, 1/2013).** TWA: 5 mg/m³ 10 hours. Form: Respirable fraction TWA: 10 mg/m³ 10 hours. Form: Total **OSHA PEL (United States, 6/2010).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust
Xylene	**ACGIH TLV (United States, 3/2012).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 655 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2010).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
Ethyl benzene	**ACGIH TLV (United States, 3/2012).** TWA: 20 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 100 ppm 8 hours.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA: 435 mg/m³ 8 hours.
STEL: 125 ppm 15 minutes.
STEL: 545 mg/m³ 15 minutes.

NIOSH REL (United States, 1/2013).
TWA: 100 ppm 10 hours.
TWA: 435 mg/m³ 10 hours.
STEL: 125 ppm 15 minutes.
STEL: 545 mg/m³ 15 minutes.

OSHA PEL (United States, 6/2010).
TWA: 100 ppm 8 hours.
TWA: 435 mg/m³ 8 hours.

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. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Exposure controls

Occupational exposure 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.

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.

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.

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.

Eye 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 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 : 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. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Liquid.
Odor : Not available.
Odor threshold : 0.05 ppm
pH : Not applicable.
Boiling point : Not available.
Melting point : Not available.
Flash point : Closed cup: >21°C (>69.8°F) [Abel's close cup]
Explosion limits : Lower: 1%
Upper: 11.25%
Vapor pressure : 0.93 kPa (7 mm Hg) [room temperature]
Relative density : 2.71
Solubility : Not available.
Vapor density : 3.7 [Air = 1]
Evaporation rate : <1 (Butyl Acetate = 1)
Auto-ignition temperature : 342.85°C (649.1°F)
Density : 2.71 g/cm³ [30°C (86°F)]
Flammability : Not available.

10. STABILITY AND REACTIVITY

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.
Materials to avoid : No known incompatibility

11. TOXICOLOGICAL INFORMATION

Potential acute health effects

Inhalation : Harmful by inhalation.
Ingestion : Irritating to mouth, throat and stomach.
Skin contact : Irritating to skin. May cause sensitization by skin contact.
Eye contact : May cause eye irritation.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	LD50 Oral	Rat	>5000 mg/kg	-
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
Silane, dichlorodimethyl-, reaction products with silica	LC50 Inhalation Vapor	Rat	450 mg/m³	4 hours
	LD50 Oral	Rat	>5000 mg/kg	-
2-ethoxyethanol	LD50 Dermal	Rabbit	3.6 g/kg	-
	LD50 Dermal	Rat	3900 mg/kg	-
	LD50 Oral	Rat	2125 mg/kg	-
methanol	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-

Potential chronic health effects

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation

11. TOXICOLOGICAL INFORMATION

zinc powder - zinc dust (stabilized)	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	-
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 microliters	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 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	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 microliters	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
2-ethoxyethanol	Eyes - Mild irritant	Guinea pig	-	10 Micrograms	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	50 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	40 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-

Product name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
2-ethoxyethanol			Repr. Cat. 2; R61	Repr. Cat. 2; R60

Chronic effects : 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.

Denmark Carcinogen list : Contains a substance or substances listed under National Working Environment Authorities Executive Order 908/2005.

11. TOXICOLOGICAL INFORMATION

Over-exposure signs/symptoms

Inhalation : No specific data.

Ingestion : No specific data.

Skin : Adverse symptoms may include the following:
irritation
redness

Eyes : No specific data.

12. ECOLOGICAL INFORMATION

Ecotoxicity : Very toxic to aquatic organisms.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
zinc powder - zinc dust (stabilized)	-	Acute EC50 106 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	-	Acute EC50 10000 µg/l Fresh water	Aquatic plants - Duckweed - Lemna minor	4 days
	-	Acute EC50 70 µg/l Fresh water	Crustaceans - Water flea - Ceriodaphnia dubia - Neonate	48 hours
	-	Acute IC50 65 µg/l Marine water	Algae - Diatom - Nitzschia closterium - Exponential growth phase	4 days
	-	Acute LC50 68 µg/l Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	-	Acute LC50 12. 21 µg/l Marine water	Fish - Mudskipper - Periophthalmus waltoni - Adult	96 hours
	-	Chronic EC10 27.3 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	-	Chronic EC10 59.2 µg/l Fresh water	Daphnia - Water flea - Daphnia magna	21 days
	-	Chronic NOEC 9 mg/l Fresh water	Aquatic plants - Coontail - Ceratophyllum demersum	3 days
	-	Chronic NOEC 178 µg/l Marine water	Crustaceans - Rockpool prawn - Palaemon elegans	21 days
	-	Chronic NOEC 2. 6 µg/l Fresh water	Fish - common carp - Cyprinus carpio	4 weeks
xylene	-	Acute LC50 8500 µg/l Marine water	Crustaceans - Daggerblade grass shrimp - Palaemonetes pugio	48 hours
	-	Acute LC50 13400 µg/l Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
barium sulfate	-	Acute EC50 634	Crustaceans -	48 hours

12. ECOLOGICAL INFORMATION

		mg/l Fresh water	Ostracod - Cypris subglobosa	
	-	Acute EC50 32000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
xylene	-	Acute LC50 8500 µg/l Marine water	Crustaceans - Daggerblade grass shrimp - Palaemonetes pugio	48 hours
	-	Acute LC50 13400 µg/l Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
2-ethoxyethanol	-	Acute LC50 >10000000 µg/l Fresh water	Fish - Bluegill - Lepomis macrochirus	96 hours
methanol	-	Acute EC50 16.912 mg/l Marine water	Algae - Green algae - Ulva pertusa	96 hours
	-	Acute EC50 10000000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	-	Acute LC50 2500000 µg/l Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
	-	Acute LC50 100 mg/l Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	-	Chronic NOEC 9.96 mg/l Marine water	Algae - Green algae - Ulva pertusa	96 hours

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
xylene	3.16	8.1 to 25.9	low
xylene	3.16	8.1 to 25.9	low
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	2.64 to 3.78	31	low
2-ethoxyethanol	-0.32	-	low
methanol	-0.77	<10	low

Other adverse effects : No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste product residues should not be disposed of via the sewer but processed in a suitable effluent treatment plant. 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. 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

13. DISPOSAL CONSIDERATIONS

dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

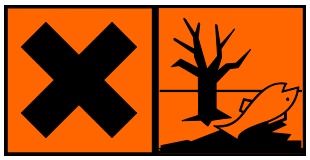
International transport regulations

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	1263	UN1263 - Paint, Paint related Material, Flammable	3	III		**Special provisions** 640 (E) **Tunnel code** (D/E)
ADN/ADNR Class	1263	UN1263 - Paint, Paint related Material, Flammable	3	III		-
IMDG Class	1263	UN1263 - Paint, Paint related Material, Flammable. Marine pollutant (zinc powder - zinc dust (stabilized), Xylene)	3	III		-
IATA Class	1263	UN1263 - Paint, Paint related Material, Flammable	3	III		-

PG* : Packing group

15. REGULATORY INFORMATION

Hazard symbol or symbols :



Harmful, Dangerous for the environment

Risk phrases : R10- Flammable.
R20- Harmful by inhalation.
R38- Irritating to skin.
R43- May cause sensitization by skin contact.
R50- Very toxic to aquatic organisms.

Safety phrases : S24- Avoid contact with skin.
S37- Wear suitable gloves.
S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

Contains : reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)
Silane, dichlorodimethyl-, reaction products with silica

Product use : Industrial applications.

Date of issue Date of revision	08-25-2019

16. OTHER INFORMATION

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

History

Date of printing

Date of ssue Date of revision 08/25/2019

Date of previous issue 04/24/2014

Version : 2

Indicates information that has changed from previously issued version.

Disclaimer

Information contained in this material safety data sheet is believed to be reliable and given in good faith, but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them.
The user of this material decides what safety measures are necessary to safely use this material, either alone or in combination with other materials.
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