

# SAFETY DATA SHEET



## Barrier Smart Pack Comp A

### Section 1. Identification

**Product identifier** : Barrier Smart Pack Comp A  
**Product code** : 29560  
**Other means of identification** : Not available.  
**Product type** : Liquid.  
**Product description** : Paint.

#### Recommended use of the chemical and restrictions on use

##### Identified uses

Use in coatings - Industrial use  
Use in coatings - Professional use

##### Restrictions on use

Not applicable.

**Supplier's details** : Jotun (Philippines) Inc.  
27 Millennium Drive, Light Industry and Science Park III (LISP III),  
Brgy. Santa Anastacia, Sto. Tomas, Batangas Philippines 4234  
  
SDSJotun@jotun.com

**Emergency telephone number** : Office landline +632 776 1337  
Fax +632 555 0760

### Section 2. Hazard identification

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 3  
SKIN SENSITISATION - Category 1  
REPRODUCTIVE TOXICITY - Category 1B  
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1  
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1

#### GHS label elements

##### Hazard pictograms



**Signal word** : Danger.

**Hazard statements** : H226 - Flammable liquid and vapour.  
H317 - May cause an allergic skin reaction.  
H360 - May damage fertility or the unborn child.  
H410 - Very toxic to aquatic life with long lasting effects.

#### Precautionary statements

## Section 2. Hazard identification

- General** : Not applicable.
- Prevention** : P203 - Obtain, read and follow all safety instructions before use.  
 P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P273 - Avoid release to the environment.  
 P261 - Avoid breathing vapour.  
 P272 - Contaminated work clothing should not be allowed out of the workplace.
- Response** : P391 - Collect spillage.  
 P318 - IF exposed or concerned, get medical advice.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water.  
 P302 + P352 - IF ON SKIN: Wash with plenty of water.  
 P333 + P317 - If skin irritation or rash occurs: Get medical help.  
 P362 + P364 - Take off contaminated clothing and wash it before reuse.
- Storage** : P405 - Store locked up.  
 P403 + P235 - Store in a well-ventilated place. Keep cool.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Other hazards which do not result in classification** : None known.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

Ingredient name	%	Identifiers
zinc	≥75 - ≤90	CAS: 7440-66-6
epoxy-formaldehyde resin (MW<700)	≤5	CAS: 9003-36-5
zinc oxide	≤3	CAS: 1314-13-2
1-methoxy-2-propanol	≤3	CAS: 107-98-2
epoxy resin (MW ≤ 700)	≤3	CAS: 1675-54-3
oxirane, mono[(c12-14-alkyloxy)methyl]derivs	<1	CAS: 68609-97-2
lead powder; [particle diameter < 1 mm] (Impurity)	<0.01	CAS: 7439-92-1

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.

## 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 if irritation occurs.

## Section 4. First aid measures

- 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.
- 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. 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** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : Flammable liquid and vapour. 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. This material is very toxic to aquatic life with long lasting effects. 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  
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 flames, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

### Methods and material 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. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. 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.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. 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 oxidising 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 unlabelled 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

Ingredient name	Exposure limits
zinc oxide	<b>TLV (Philippines, 4/2016)</b> TLV 8 hours: 1 mg/m <sup>3</sup> . Form: Fume.
lead powder; [particle diameter < 1 mm] (Impurity)	<b>TLV (Philippines, 4/2016)</b> TLV 8 hours: 0.15 mg/m <sup>3</sup> . Form: Dust and fumes.

#### Biological exposure indices

No exposure indices known.

**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, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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

### Individual protection measures

## Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying to EN 166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Liquid.
- Colour** : Grey
- Odour** : Characteristic.
- Odour threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : Not available.
- Flash point** : Closed cup: 42°C (107.6°F)
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapour pressure** : Not available.
- Relative vapour density** : Not available.
- Relative density** : Not available.

## Section 9. Physical and chemical properties and safety characteristics

**Density** : 3.96 g/cm<sup>3</sup>

**Solubility(ies)** :

Media	Result
hot water	Not soluble
cold water	Not soluble

**Solubility in water** : Not available.

**Partition coefficient: n-octanol/water** : Not applicable.

**Auto-ignition temperature** : Not available.

**Decomposition temperature** : Not available.

**Viscosity** : Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C (104°F)): Not available.

### Particle characteristics

**Median particle size** : Not applicable.

## 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 pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

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

1-methoxy-2-propanol

##### Result

**Rabbit - Dermal - LD50**

13 g/kg

**Rat - Oral - LD50**

6600 mg/kg

Toxic effects: Brain and Coverings - Other degenerative changes Behavioral - General anesthetic Lung, Thorax, or Respiration - Dyspnea

**Mouse - Oral - LD50**

15600 mg/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Gastrointestinal - Hypermotility, diarrhea Gross Metabolite Changes - Weight loss or decreased weight gain

**Rabbit - Dermal - LD50**

20 g/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Gastrointestinal - Hypermotility, diarrhea Gross

epoxy resin (MW ≤ 700)

## Section 11. Toxicological information

oxirane, mono[(c12-14-alkyloxy)methyl]derivs

Metabolite Changes - Weight loss or decreased weight gain  
**Rat - Oral - LD50**  
 17100 mg/kg

**Conclusion/Summary[Product]** : Not available.

### Skin corrosion/irritation

#### **Product/ingredient name**

zinc

#### **Result**

**Human - Skin - Mild irritant**

Duration of treatment/exposure: 72 hours

Amount/concentration applied: 300 Micrograms Intermittent

**Mammal - species unspecified - Skin - Mild irritant**

**Rabbit - Skin - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 500 mg

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 500 milligrams

**Rabbit - Skin - Moderate irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 µl

**Mammal - species unspecified - Skin - Mild irritant**

epoxy-formaldehyde resin (MW<700)

zinc oxide

1-methoxy-2-propanol

epoxy resin (MW ≤ 700)

oxirane, mono[(c12-14-alkyloxy)methyl]derivs

**Conclusion/Summary[Product]** : Not available.

### Serious eye damage/eye irritation

#### **Product/ingredient name**

zinc oxide

#### **Result**

**Rabbit - Eyes - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

**Rabbit - Eyes - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

**Rabbit - Eyes - Severe irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 milligrams

**Rabbit - Eyes - Not irritant**

OECD 405

1-methoxy-2-propanol

epoxy resin (MW ≤ 700)

oxirane, mono[(c12-14-alkyloxy)methyl]derivs

**Conclusion/Summary[Product]** : Not available.

### Respiratory corrosion/irritation

Not available.

**Conclusion/Summary[Product]** : Not available.

### Respiratory or skin sensitization

#### **Product/ingredient name**

epoxy-formaldehyde resin (MW<700)

#### **Result**

**Mammal - species unspecified - skin**

Result: Sensitising

epoxy resin (MW ≤ 700)

**Mammal - species unspecified - skin**

Result: Sensitising

oxirane, mono[(c12-14-alkyloxy)methyl]derivs

**Guinea pig - skin**

OECD 406

Result: Sensitising

## Section 11. Toxicological information

### Skin

**Conclusion/Summary[Product]** : Not available.

#### Ingredient name

epoxy-formaldehyde resin (MW<700)  
epoxy resin (MW ≤ 700)  
oxirane, mono[(c12-14-alkyloxy)methyl]derivs

#### Conclusion/Summary

May cause an allergic skin reaction.  
May cause an allergic skin reaction.  
May cause an allergic skin reaction.

### Respiratory

**Conclusion/Summary[Product]** : Not available.

### Germ cell mutagenicity

Not available.

**Conclusion/Summary[Product]** : Not available.

### Carcinogenicity

Not available.

**Conclusion/Summary[Product]** : Not available.

### Reproductive toxicity

Not available.

**Conclusion/Summary[Product]** : Not available.

#### Ingredient name

oxirane, mono[(c12-14-alkyloxy)methyl]derivs

#### Conclusion/Summary

May damage fertility.

### Specific target organ toxicity (single exposure)

#### Product/ingredient name

1-methoxy-2-propanol

#### Result

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on likely routes of exposure

Not available.

### Potential acute health effects

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

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

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

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

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.

## Section 11. Toxicological information

- Inhalation** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

### Delayed and immediate effects as well as 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.

**Conclusion/Summary[Product]** : Not available.

**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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

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

**Reproductive toxicity** : May damage fertility or the unborn child.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
1-methoxy-2-propanol oxirane, mono[(c12-14-alkyloxy)methyl]derivs	6600 17100	13000 N/A	N/A N/A	N/A N/A	N/A N/A

## Section 12. Ecological information

### Toxicity

**Product/ingredient name** : **Result**

## Section 12. Ecological information

zinc	<p><b>Acute - LC50 - Fresh water</b> Daphnia - Water flea - <i>Daphnia magna</i> 330 µg/l [48 hours] <u>Effect:</u> Mortality</p> <p><b>Acute - LC50 - Fresh water</b> Fish 0.78 mg/l [96 hours] <u>Effect:</u> Mortality</p>
epoxy-formaldehyde resin (MW<700)	<p><b>Acute - LC50</b> Fish 2 mg/l [96 hours]</p> <p><b>Acute - EC50</b> Daphnia 2 mg/l [24 hours]</p>
zinc oxide	<p><b>Chronic - NOEC - Fresh water</b> Algae - Green algae - <i>Pseudokirchneriella subcapitata</i> - Exponential growth phase 0.02 mg/l [72 hours] <u>Effect:</u> Growth</p> <p><b>Acute - LC50 - Fresh water</b> US EPA Fish - Rainbow trout,donaldson trout - <i>Oncorhynchus mykiss</i> <u>Weight:</u> 0.78 g 1.1 ppm [96 hours] <u>Effect:</u> Mortality</p>
epoxy resin (MW ≤ 700)	<p><b>Acute - LC50</b> Fish - <i>pimephales promelas</i> 3.1 mg/l [96 hours]</p> <p><b>Acute - EC50</b> Daphnia 1.4 mg/l [48 hours]</p> <p><b>Chronic - NOEC</b> Fish 0.3 mg/l [21 days]</p>
oxirane, mono[(c12-14-alkyloxy)methyl]derivs	<p><b>Acute - LC50</b> OECD 203 Fish - <i>Oncorhynchus mykiss</i> &gt;100 mg/l [96 hours]</p> <p><b>Chronic - NOEL</b> OECD 211 Daphnia - <i>Daphnia magna</i> 56 mg/l [21 days]</p>

**Conclusion/Summary[Product]** : Not available.

<b>Ingredient name</b>	<b>Conclusion/Summary</b>
1-methoxy-2-propanol	Not available.

### Persistence and degradability

<b>Product/ingredient name</b>	<b>Result</b>
oxirane, mono[(c12-14-alkyloxy)methyl]derivs	OECD 301F 87% [28 days] - Readily

**Conclusion/Summary[Product]** : Not available.

## Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
zinc	-	-	Not readily
epoxy-formaldehyde resin (MW<700)	-	-	Not readily
zinc oxide	-	-	Not readily
epoxy resin (MW ≤ 700)	-	-	Not readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
epoxy-formaldehyde resin (MW<700)	2.7	-	Low
zinc oxide	-	28960	High
1-methoxy-2-propanol	<1	-	Low
epoxy resin (MW ≤ 700)	2.64 to 3.78	31	Low
oxirane, mono[(c12-14-alkyloxy)methyl] derivs	3.77	160 to 263	Low

### Mobility in soil

**Soil/water partition coefficient** : Not available.








### Other adverse effects

No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimised 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. Vapour 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	ADR/RID	ADN	IMDG	IATA
<b>UN number</b>	UN1263	UN1263	UN1263	UN1263
<b>UN proper shipping name</b>	Paint	Paint	Paint. Marine pollutant (zinc, zinc oxide)	Paint
<b>Transport hazard class(es)</b>	3  	3  	3  	3 
<b>Packing group</b>	III	III	III	III

## Section 14. Transport information

<b>Environmental hazards</b>	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
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### Additional information

- ADR/RID** : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.  
**Hazard identification number** 30  
**Tunnel code** (D/E)
- ADN** : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.  
**Emergency schedules** F-E, S-E
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

### Philippines - Priority Chemical List (PCL)

Not applicable.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

## Section 16. Other information

**SDS based on UN GHS Revision** : 9

### History

- Date of printing** : 18.05.2026  
**Date of issue/Date of revision** : 18.05.2026  
**Date of previous issue** : No previous validation  
**Version** : 1

## Section 16. Other information

### Abbreviations and acronyms

: 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  
 IMO = International Maritime Organization  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 N/A = Not available  
 SGG = Segregation Group  
 UN = United Nations

### Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3 SKIN SENSITISATION - Category 1 REPRODUCTIVE TOXICITY - Category 1B SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1	On basis of test data Calculation method Calculation method Calculation method Calculation method

### Key literature references and sources for data

: Not available.

✔ Indicates information that has changed from previously issued version.

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