



Jotamastic 90 GF Comp A

Section 1. Identification

GHS product identifier : 低表面處理環氧耐磨玻璃鱗片漆90 組份A

Other means of identification

: Not available.

Product code : 18880
Product type : Liquid.
Product description : Paint.

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

Identified uses

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

Supplier's details : 佐敦涂料(张家港)有限公司

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Section 2. Hazards identification

Classification of the substance or mixture

: FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

SKIN SENSITIZATION - Category 1

AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements

Hazard pictograms







Signal word : Danger.

Section 2. Hazards identification

Hazard statements

: Flammable liquid and vapor. Causes serious eye damage.

Causes skin irritation. May cause an allergic skin reaction.

Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

: Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Avoid release to the environment. Wash hands thoroughly after handling.

Response

: IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses. if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage

: Store in a well-ventilated place. Keep cool.

Disposal

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

Other hazards which do not : None known.

result in classification

Section 3. Composition/information on ingredients

Substance/mixture Other means of identification

: Mixture : Not available.

CAS number/other identifiers

CAS number : Not applicable.

Product code : 18880

Product name	Concentration	CAS number
epoxy resin (MW ≤ 700)	≥10 - ≤25	1675-54-3
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction	≤10	67989-52-0
products with fatty acids, C18-unsatd., dimers	440	4000 00 7
xylene	≤10 ≤5	1330-20-7 71302-83-5
hydrocarbons, c9-unsatd., polymd. 2-methylpropan-1-ol	≥5 ≤5	78-83-1
glycidyl ether of 3-alkyl phenol	<u>≤</u> 5	68413-24-1
benzyl alcohol	<u>≤</u> 3	100-51-6
ethylbenzene	≤3	100-41-4
Phenol, methylstyrenated	≤3	68512-30-1
Phenol, styrenated	≤3	61788-44-1
物品名稱	濃度	化學文摘社登記號碼(CAS No.)
物品名稱 環氧樹脂 (MW < 700)		化學文摘社登記號碼(CAS No.) 1675-54-3
	濃度 ≥10 - ≤25 ≤10	
環氧樹脂 (MW≤700)	≥10 - ≤25 ≤10	1675-54-3
環氧樹脂 (MW < 700) C18-不饱和脂肪酸二聚体与4,4'-(1-甲基亚乙基)联(二)	≥10 - ≤25 ≤10	1675-54-3
環氧樹脂 (MW≤700) C18-不饱和脂肪酸二聚体与4,4'-(1-甲基亚乙基)联(二) 苯酚和氯甲基环氧乙烷的聚合物	$\geq 10 - \leq 25$ ≤ 10 ≤ 10 ≤ 5	1675-54-3 67989-52-0
環氧樹脂 (MW≤700) C18-不饱和脂肪酸二聚体与4,4'-(1-甲基亚乙基)联(二) 苯酚和氯甲基环氧乙烷的聚合物 二甲苯	$\geq 10 - \leq 25$ ≤ 10 ≤ 10 ≤ 5 ≤ 5	1675-54-3 67989-52-0 1330-20-7
環氧樹脂 (MW≤700) C18-不饱和脂肪酸二聚体与4,4'-(1-甲基亚乙基)联(二) 苯酚和氯甲基环氧乙烷的聚合物 二甲苯 Hydrocarbons, C9-unsatd., polymd.	≥10 - ≤25 ≤10	1675-54-3 67989-52-0 1330-20-7 71302-83-5
環氧樹脂 (MW < 700) C18-不饱和脂肪酸二聚体与4,4'-(1-甲基亚乙基)联(二) 苯酚和氯甲基环氧乙烷的聚合物 二甲苯 Hydrocarbons, C9-unsatd., polymd. 異丁醇 Cashew, nutshell liq., oligomeric reaction products with 1-chloro-2,3-epoxypropane	$\geq 10 - \leq 25$ ≤ 10 ≤ 10 ≤ 5 ≤ 5 ≤ 5	1675-54-3 67989-52-0 1330-20-7 71302-83-5 78-83-1 68413-24-1
環氧樹脂 (MW≤700) C18-不饱和脂肪酸二聚体与4,4'-(1-甲基亚乙基)联(二) 苯酚和氯甲基环氧乙烷的聚合物 二甲苯 Hydrocarbons, C9-unsatd., polymd. 異丁醇 Cashew, nutshell liq., oligomeric reaction products with 1-chloro-2,3-epoxypropane benzyl alcohol	$\geq 10 - \leq 25$ ≤ 10 ≤ 10 ≤ 5 ≤ 5 ≤ 5 ≤ 5	1675-54-3 67989-52-0 1330-20-7 71302-83-5 78-83-1
環氧樹脂 (MW < 700) C18-不饱和脂肪酸二聚体与4,4'-(1-甲基亚乙基)联(二) 苯酚和氯甲基环氧乙烷的聚合物 二甲苯 Hydrocarbons, C9-unsatd., polymd. 異丁醇 Cashew, nutshell liq., oligomeric reaction products with 1-chloro-2,3-epoxypropane	$\geq 10 - \leq 25$ ≤ 10 ≤ 10 ≤ 5 ≤ 5 ≤ 5 ≤ 3 ≤ 3	1675-54-3 67989-52-0 1330-20-7 71302-83-5 78-83-1 68413-24-1
環氧樹脂 (MW≤700) C18-不饱和脂肪酸二聚体与4,4'-(1-甲基亚乙基)联(二) 苯酚和氯甲基环氧乙烷的聚合物 二甲苯 Hydrocarbons, C9-unsatd., polymd. 異丁醇 Cashew, nutshell liq., oligomeric reaction products with 1-chloro-2,3-epoxypropane benzyl alcohol	$\geq 10 - \leq 25$ ≤ 10 ≤ 10 ≤ 5 ≤ 5 ≤ 5	1675-54-3 67989-52-0 1330-20-7 71302-83-5 78-83-1 68413-24-1 100-51-6

Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health 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

: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

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Inhalation

Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

: Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

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

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

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

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

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

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Section 4. First aid measures

Notes to physician

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

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Specific treatments

Protection of first-aiders

: No specific treatment.

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Unsuitable extinguishing

: Do not use water jet.

media

Specific hazards arising from the chemical

: Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful 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

: Use dry chemical, CO2, water spray (fog) or foam.

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 : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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 and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, 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.

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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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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.

including any incompatibilities

Conditions for safe 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 wellventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
xylene	TW Minstry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 6/2014). STEL: 542.5 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours.
2-methylpropan-1-ol	TW Minstry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 6/2014). STEL: 228 mg/m³ 15 minutes. STEL: 75 ppm 15 minutes. TWA: 152 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
ethylbenzene	TW Minstry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 6/2014).

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Section 8. Exposure controls/personal protection

STEL: 125 ppm 15 minutes. STEL: 542.5 mg/m³ 15 minutes. TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours.

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

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.

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.

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to EN374.

Recommended, gloves(breakthrough time) > 8 hours: Viton®, Responder, 4H, Teflon

Not recommended, gloves(breakthrough time) < 1 hour: PVC

May be used, gloves(breakthrough time) 4 - 8 hours: butyl rubber, nitrile rubber, neoprene, polyvinyl alcohol (PVA)

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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

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

Section 8. Exposure controls/personal protection

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.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Various

Odor : Characteristic.
Odor threshold : Not available.
pH : Not applicable.
Melting point : Not applicable.

Boiling point : Lowest known value: 108°C (226.4°F) (2-methylpropan-1-ol). Weighted average:

228.81°C (443.9°F)

Flash point : Closed cup: 33°C (91.4°F)

Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.6compared with

butyl acetateNot applicable.

Flammability (solid, gas)
Lower and upper explosive

Lower and upper explosi

: 0.8 - 13%

(flammable) limits

Vapor pressure

: Highest known value: <1.6 kPa (<12 mm Hg) (at 20°C) (2-methylpropan-1-ol).

Weighted average: 0.37 kPa (2.78 mm Hg) (at 20°C)

Vapor density

: Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted average:

7.74 (Air = 1)

Relative density : 1.506 to 1.589 g/cm³

Solubility : Insoluble in the following materials: cold water and hot water.

Partition coefficient: n-

octanol/water

: Not available.

Auto-ignition temperature: Lowest known value: >375°C (>707°F) (hydrocarbons, c9-unsatd., polymd.).

Decomposition temperature: Not available.

Viscosity : Kinematic (40°C (104°F)): >0.205 cm²/s (>20.5 mm²/s)

Section 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.

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions:

oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2,2'-[(1-methylethylidene)bis (4,	LD50 Dermal	Rabbit	20 g/kg	-
1-phenyleneoxymethylene)] bisoxirane				
xylene	LC50 Inhalation Vapor	Rat	20 mg/l	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	19200 mg/m ³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	2460 mg/kg	-
benzyl alcohol	LD50 Oral	Rat	1230 mg/kg	-
ethylbenzene	LC50 Inhalation Gas.	Rabbit	4000 ppm	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Phenol, styrenated	LD50 Dermal	Rabbit	>5010 mg/kg	-
-	LD50 Oral	Rat	2500 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2,2'-[(1-methylethylidene)bis (4, 1-phenyleneoxymethylene)] bisoxirane	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
Phenol, styrenated	Skin - Mild irritant Eyes - Mild irritant Skin - Mild irritant	Rabbit Rabbit Rabbit	- - -	500 mg 0.1 Mililiters 0.5 Mililiters	- - -

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
xylene	Category 3	Not applicable.	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	Not determined	hearing organs

Aspiration hazard

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Section 11. Toxicological information

Name	Result
	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on the likely

routes of exposure

: Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

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

Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion: Adverse symptoms may include the following:

stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

Carcinogenicity: No known significant effects or critical hazards.Mutagenicity: No known significant effects or critical hazards.Teratogenicity: No known significant effects or critical hazards.Developmental effects: No known significant effects or critical hazards.Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
	49200 mg/kg
Dermal	19349.2 mg/kg
Inhalation (vapors)	111.1 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2,2'-[(1-methylethylidene)bis (4,	Acute EC50 1.4 mg/l	Daphnia	48 hours
1-phenyleneoxymethylene)]			
bisoxirane			
	Acute LC50 3.1 mg/l	Fish - pimephales promelas	96 hours
	Chronic NOEC 0.3 mg/l	Fish	21 days
2-methylpropan-1-ol	Chronic NOEC 4000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
ethylbenzene	Acute EC50 7.2 mg/l	Algae	48 hours
	Acute EC50 2.93 mg/l	Daphnia	48 hours
	Acute LC50 4.2 mg/l	Fish	96 hours
Phenol, styrenated	Acute EC50 100 mg/l	Algae	72 hours
-	Acute EC50 54 mg/l	Daphnia	48 hours
	Acute LC50 25.8 mg/l	Fish	96 hours

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Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2,2'-[(1-methylethylidene)bis	-	-	Not readily
1-phenyleneoxymethylene)			
bisoxirane			
xylene	-	-	Readily
benzyl alcohol	-	-	Readily
ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2,2'-[(1-methylethylidene)bis	2.64 to 3.78	31	low
(4,			
1-phenyleneoxymethylene)]			
bisoxirane			
xylene	3.12	8.1 to 25.9	low
hydrocarbons,	3.627	-	low
C9-unsaturated, polymerized			
2-methylpropan-1-ol	1	-	low
benzyl alcohol	0.87	<100	low
ethylbenzene	3.6	-	low
Phenol, methylstyrenated	3.627	-	low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

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

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues

Section 13. Disposal considerations

may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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Section 14. Transport information

	UN	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	Paint	Paint	Paint
Transport hazard class(es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	No.	No.
Additional information	-	Emergency schedules F-E, S-E	-

ADR / RID

: Tunnel restriction code: (D/E)
Hazard identification number: 30

ADR/RID: Viscous substance. Not restricted, ref. chapter 2.2.3.1.5 (applicable to receptacles

450 litre capacity).

IMDG

: IMDG: Viscous substance. Transport in accordance with paragraph 2.3.2.5 (applicable to

receptacles < 30 litre capacity).

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.

Section 15. Regulatory information

List of chemicals for which manufacturing or handling is defined as "work specially hazardous to health" : This product contains substances "Specially hazardous to health": xylene, 2-methylpropan-1-ol, butan-1-ol.

List of chemicals reputed to be a "threat of imminent danger"

: This product contains substances considered to be a "Threat of imminent danger": xylene, 2-methylpropan-1-ol, ethylbenzene, silica, crystalline - quartz, di-isobutyl ketone, butan-1-ol.

Safety, health and environmental regulations specific for the product

International regulations

: No known specific national and/or regional regulations applicable to this product (including its ingredients).

Taiwan Chemical Substances Inventory (TCSI)

: Not determined.

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

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Section 15. Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

History

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Key to abbreviations : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

✓ Indicates information that has changed from previously issued version.

Notice to reader

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.