# SAFETY DATA SHEET



# Penguard Topcoat Comp A

# Section 1. Identification

GHS product identifier	: Penguard Topcoat Comp A
Product code	: 625
Product description	: Paint.
Other means of identification	: Not available.
Product type	: Liquid.
Supplier's details	: Jotun Paints Inc. 842 W. Sam Houston Parkway North City Center Three, Suite 300 Houston, TX 77024 USA Phone number: +1 (713) 860-8241 SDSJotun@jotun.com
Emergency telephone number (with hours of operation)	: 1-800-424-9300 (Staffed 24/7)

# Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	<ul> <li>FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 3</li> </ul>

Signal word	: Danger.
Hazard statements	<ul> <li>H226 - Flammable liquid and vapor. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage. H335 - May cause respiratory irritation. H361 - Suspected of damaging fertility or the unborn child. H373 - May cause damage to organs through prolonged or repeated exposure. (hearing organs) H412 - Harmful to aquatic life with long lasting effects.</li> </ul>
Brocoutionomy statements	

#### **Precautionary statements**

GHS label elements Hazard pictograms

# Section 2. Hazards identification

Prevention	<ul> <li>P201 - Obtain special instructions before use.</li> <li>P280 - Wear protective gloves, protective clothing and eye or face protection.</li> <li>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</li> <li>P273 - Avoid release to the environment.</li> <li>P260 - Do not breathe vapor or spray.</li> </ul>
Response	<ul> <li>P308 + P313 - IF exposed or concerned: Get medical advice or attention.</li> <li>P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.</li> <li>P362 + P364 - Take off contaminated clothing and wash it before reuse.</li> <li>P363 - Wash contaminated clothing before reuse.</li> <li>P302 + P352 - IF ON SKIN: Wash with plenty of water.</li> <li>P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.</li> <li>P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>Immediately call a POISON CENTER or doctor.</li> </ul>
Storage	<ul> <li>P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.</li> <li>P403 + P235 - Keep cool.</li> </ul>
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known.

# Section 3. Composition/information on ingredients

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

#### **CAS number/other identifiers**

CAS number	: Not applicable.
Product code	: 625

Ingredient name	%	CAS number
epoxy resin (MW 700-1200)	≥10 - ≤25	25036-25-3
xylene	≥10 - <22	1330-20-7
Solvent naphtha (petroleum), light arom.	≤8.3	64742-95-6
butan-1-ol	≤6.1	71-36-3
1-methoxy-2-propanol	≤5	107-98-2
ethylbenzene	≤5	100-41-4
fatty acids, C14-18 and C16-18-unsatd., maleated	≤0.3	85711-46-2
propylidynetrimethanol	≤0.3	77-99-6

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

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.

# Section 4. First aid measures

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. 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 sympto	oms/effects, acute and delayed
Potential acute health	<u>effects</u>
Eye contact	: Causes serious eye damage.
Inhalation	: May cause respiratory irritation.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/	<u>symptoms</u>
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations
Indication of immediate	e medical attention and special treatment needed, if necessary
Notes to physician	<ul> <li>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</li> </ul>
Specific treatments	: No specific treatment.
Date of issue	: 17.10.2022

### Section 4. First aid measures

Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
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See toxicological information (Section 11)

### Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: 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 carbon monoxide sulfur oxides 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. For non-emergency Evacuate surrounding areas. Keep unnecessary and unprotected personnel from personnel 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. For emergency responders If specialized clothing is required to deal with the spillage, take note of any information in 12 Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency 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.

#### 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<br/>explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively,<br/>or if water-insoluble, absorb with an inert dry material and place in an appropriate waste<br/>disposal container. Dispose of via a licensed waste disposal contractor.

# Section 6. Accidental release measures

Large spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible,
	absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a
	licensed waste disposal according to local regulations (see Section 13). Dispose of via a
	same hazard as the spilled product. Note: see Section 1 for emergency contact
	information and Section 13 for waste disposal.

# Section 7. Handling and storage

Precautions for safe handling	1	
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 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.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

# Section 8. Exposure controls/personal protection

#### **Control parameters**

**Occupational exposure limits** 

Ingredient name	Exposure limits
epoxy resin (MW 700-1200) xylene	None ACGIH TLV (United States, 1/2022). STEL: 651 mg/m <sup>3</sup> 15 minutes. TWA: 434 mg/m <sup>3</sup> 8 hours. TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m <sup>3</sup> 8 hours. TWA: 100 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). STEL: 655 mg/m <sup>3</sup> 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m <sup>3</sup> 8 hours. TWA: 100 ppm 8 hours. TWA: 100 ppm 8 hours.
Solvent naphtha (petroleum), light arom.	None

# Section 8. Exposure controls/personal protection

butan-1-ol	ACGIH TLV (United States, 1/2022).
	TWA: 20 ppm 8 hours.
	NIOSH REL (United States, 10/2020).
	Absorbed through skin.
	CEIL: 150 mg/m <sup>3</sup>
	CEIL: 50 ppm OSHA PEL (United States, 5/2018).
	TWA: 300 mg/m <sup>3</sup> 8 hours.
	TWA: 100 ppm 8 hours.
	OSHA PEL 1989 (United States, 3/1989).
	Absorbed through skin.
	CEIL: 150 mg/m <sup>3</sup>
	CEIL: 50 ppm
I-methoxy-2-propanol	ACGIH TLV (United States, 1/2022).
· · ·	STEL: 369 mg/m <sup>3</sup> 15 minutes.
	STEL: 100 ppm 15 minutes.
	TWA: 184 mg/m <sup>3</sup> 8 hours.
	TWA: 50 ppm 8 hours.
	NIOSH REL (United States, 10/2020).
	STEL: 540 mg/m <sup>3</sup> 15 minutes.
	STEL: 150 ppm 15 minutes.
	TWA: 360 mg/m <sup>3</sup> 10 hours. TWA: 100 ppm 10 hours.
	OSHA PEL 1989 (United States, 3/1989).
	STEL: 540 mg/m <sup>3</sup> 15 minutes.
	STEL: 150 ppm 15 minutes.
	TWA: 360 mg/m <sup>3</sup> 8 hours.
	TWA: 100 ppm 8 hours.
ethylbenzene	OSHA PEL 1989 (United States, 3/1989).
	TWA: 100 ppm 8 hours.
	TWA: 435 mg/m <sup>3</sup> 8 hours.
	STEL: 125 ppm 15 minutes.
	STEL: 545 mg/m <sup>3</sup> 15 minutes.
	NIOSH REL (United States, 10/2020).
	TWA: 100 ppm 10 hours.
	TWA: 435 mg/m <sup>3</sup> 10 hours.
	STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes.
	OSHA PEL (United States, 5/2018).
	TWA: 100 ppm 8 hours.
	TWA: $435 \text{ mg/m}^3 8 \text{ hours}.$
	ACGIH TLV (United States, 1/2022).
	Ototoxicant. Notes: K
	TWA: 20 ppm 8 hours. Form:
fatty acids, C14-18 and C16-18-unsatd., maleated	None
propylidynetrimethanol	None

Appropriate engineering controls	: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

# Section 8. Exposure controls/personal protection

: 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.
: 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.
: 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.
<ul> <li>There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.</li> <li>The breakthrough time must be greater than the end use time of the product.</li> <li>The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.</li> <li>Gloves should be replaced regularly and if there is any sign of damage to the glove material.</li> <li>Always ensure that gloves are free from defects and that they are stored and used correctly.</li> <li>The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.</li> </ul>
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. Not recommended, gloves(breakthrough time) < 1 hour: PE, butyl rubber May be used, gloves(breakthrough time) 4 - 8 hours: Viton®, Barricade, CPF 3, Responder, neoprene, PVC Recommended, gloves(breakthrough time) > 8 hours: 4H, Teflon, nitrile rubber, polyvinyl alcohol (PVA)
: 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.
: 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.
: 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

<u>Appearance</u>	
Physical state	: Liquid.
Color	<ul> <li>aluminum, Black, Blue., Brown., Green., Grey, MCI Base 1, MCI Base 2, MCI Base 3, MCI Base 5, MCI Base 6, Off-white., Orange, Red, White., Yellow.</li> </ul>
Odor	: Characteristic.
Odor threshold	: Not applicable.
Date of issue	÷17.10.2022 7/16

# Section 9. Physical and chemical properties

рН	: Not applicable.
Melting point	: Not applicable.
Boiling point	: Lowest known value: 119°C (246.2°F) (butan-1-ol). Weighted average: 139.01°C (282.2°F)
Flash point	: Closed cup: 23°C (73.4°F)
Evaporation rate	: Highest known value: 0.84 (ethylbenzene) Weighted average: 0.72compared with buty acetate
Flammability (solid, gas)	: Not applicable.
Lower and upper explosive (flammable) limits	: 0.8 - 13.74%
Vapor pressure	: Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.98 kPa (7.35 mm Hg) (at 20°C)
Vapor density	: Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.36 (Air = 1)
Relative density	: 1.148 to 1.422 g/cm <sup>3</sup> 9.58 to 11.87 pounds/gallon
Solubility	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n- octanol/water	: Not available.
Auto-ignition temperature	: Lowest known value: 270°C (518°F) (1-methoxy-2-propanol).
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)

# Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# Section 11. Toxicological information

#### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LC50 Inhalation Vapor	Rat	20 mg/l	4 hours
-	LD50 Oral	Rat	4300 mg/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
butan-1-ol	LD50 Oral	Rat	790 mg/kg	-
1-methoxy-2-propanol	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	6600 mg/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat - Male	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
propylidynetrimethanol	LD50 Oral	Rat	14000 mg/kg	-

Irritation/Corrosion

# Section 11. Toxicological information

	5				
Product/ingredient name	Result	Species	Score	Exposure	Observation
epoxy resin (MW 700-1200)	Skin - Mild irritant	Mammal - species unspecified	-	-	-
	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
xylene	Eyes - Mild irritant Skin - Mild irritant	Rabbit Rat	-	87 milligrams 8 hours 60 microliters	-
1-methoxy-2-propanol	Eyes - Mild irritant Skin - Mild irritant	Rabbit Rabbit	-	24 hours 500 mg	-
fatty acids, C14-18 and C16-18-unsatd., maleated	Skin - Mild irritant	Mammal - species unspecified	-	500 mg -	-

#### **Sensitization**

Product/ingredient name	Route of exposure	Species	Result
epoxy resin (MW 700-1200) fatty acids, C14-18 and C16-18-unsatd., maleated		Mammal - species unspecified Mammal - species unspecified	5

#### **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	-	Respiratory tract irritation
Solvent naphtha (petroleum), light arom.	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
butan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
1-methoxy-2-propanol	Category 3	-	Narcotic effects

#### Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

#### Aspiration hazard

Name	Result		
Solvent naphtha (petroleum), light arom.	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1		

# Section 11. Toxicological information

Information on the likely routes of exposure	: Not available.
Potential acute health effect	<u>s</u>
Eye contact	: Causes serious eye damage.
Inhalation	: May cause respiratory irritation.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
Symptoms related to the ph	vsical, chemical and toxicological characteristics
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

Delayed and immediate effe	cts and also chronic effects from short and long term exposure
<u>Short term exposure</u>	
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 eff	ects
Not available.	
General	: May cause damage to organs through prolonged or repeated exposure. 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	: Suspected of damaging the unborn child.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
Fertility effects	: Suspected of damaging fertility.

#### Numerical measures of toxicity Acute toxicity estimates

	_	
Date	of	issue

Penguard Topcoat Comp A		
Section 11. Toxicological information		
Route	ATE value	
Oral Dermal Inhalation (vapors)	9091.82 mg/kg 9285.1 mg/kg 122.82 mg/l	

# Section 12. Ecological information

Toxicity					
Product/ingredient name	Result	Species	Exposure		
xylene	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours		
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours		
Solvent naphtha (petroleum), light arom.	Acute EC50 <10 mg/l	Daphnia	48 hours		
0	Acute IC50 <10 mg/l	Algae	72 hours		
	Acute LC50 <10 mg/l	Fish	96 hours		
ethylbenzene	Acute EC50 7700 µg/l Marine water	Algae - Skeletonema costatum	96 hours		
-	Acute EC50 2.93 mg/l	Daphnia	48 hours		
	Acute LC50 4.2 mg/l	Fish	96 hours		

#### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene Solvent naphtha (petroleum), light arom.	-		Readily Not readily
ethylbenzene	-	-	Readily

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
xylene	3.12	8.1 to 25.9	low
Solvent naphtha (petroleum),	-	10 to 2500	high
light arom.			
butan-1-ol	1	-	low
1-methoxy-2-propanol	<1	-	low
ethylbenzene	3.6	-	low
propylidynetrimethanol	-0.47	<1	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
	sale way. Sale should be taken when handling emptied containers that have not been

## Section 13. Disposal considerations

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

#### United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Xylene 1-Butanol (I)	1330-20-7 71-36-3	Listed Listed	U239 U031
		Liotou	0001

# Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	Paint	Paint	Paint	Paint	Paint	Paint
Transport hazard class(es)	3	3	3	3	3	3
Packing group	Ш	111	Ш	III	111	Ш
Environmental hazards	No.	No.	No.	No.	No.	No.

Additional information		
DOT Classification	:	<b>Reportable quantity</b> 844.1 lbs / 383.22 kg [78.783 gal / 298.23 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
TDG Classification	:	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).
Mexico Classification	:	-
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	:	Emergency schedules (EmS): F-E, <u>S-E</u> Marine pollutant: No.
		IMDG: Viscous substance. Transport in accordance with paragraph 2.3.2.5 (applicable to receptacles < 450 litre capacity).
ΙΑΤΑ	:	-
Special precautions for user	:	<b>Transport within user's premises:</b> 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

U.S. Federal regulations	<b>TSCA 4(a) final test rules</b> : octamethylcyclotetrasiloxane	
	TSCA 8(a) PAIR: 2-methoxy-1-methylethyl acetate; octamethylcyclotetrasiloxane	
	Clean Water Act (CWA) 307: ethylbenzene	
	Clean Water Act (CWA) 311: xylene; ethylbenzene; phosphoric acid; maleic anhydride	

#### Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)

Ingredient name		CAS number	%
xylene ethylbenzene maleic anhydride		1330-20-7 100-41-4 108-31-6	11.847 3.949 0.0019598
Clean Air Act Section 602 Class I Substances	: Not listed		
Clean Air Act Section 602 Class II Substances	: Not listed		
DEA List I Chemicals (Precursor Chemicals)	: Not listed		
DEA List II Chemicals (Essential Chemicals)	: Not listed		
<u>SARA 302/304</u>			
Composition/information	<u>on ingredients</u>		
No products were found.			
SARA 304 RQ	: Not applicable.		
<u>SARA 311/312</u>			
Classification	SKIN IRRITATIO SERIOUS EYE I SKIN SENSITIZ TOXIC TO REP SPECIFIC TARO irritation) - Categ	DAMAGE - Category 1 ATION - Category 1 RODUCTION - Category 2 GET ORGAN TOXICITY (SING gory 3	GLE EXPOSURE) (Respiratory tract EATED EXPOSURE) - Category 2

#### **Composition/information on ingredients**

Name	%	Classification
epoxy resin (MW 700-1200)	≥10 - ≤25	SKIN IRRITATION - Category 2
		EYE IRRITATION - Category 2A
		SKIN SENSITIZATION - Category 1
xylene	≥10 - <22	FLAMMABLE LIQUIDS - Category 3
-		ACUTE TOXICITY (dermal) - Category 4
		ACUTE TOXICITY (inhalation) - Category 4
		SKIN IRRITATION - Category 2
		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Respiratory tract irritation) - Category 3
		ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum),	≤8.3	FLAMMABLE LIQUIDS - Category 3
light arom.		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
-		(Respiratory tract irritation) - Category 3
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
		ASPIRATION HAZARD - Category 1
butan-1-ol	≤6.1	FLAMMABLE LIQUIDS - Category 3
		ACUTE TOXICITY (oral) - Category 4
		SKIN IRRITATION - Category 2
		SERIOUS EYE DAMAGE - Category 1
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Respiratory tract irritation) - Category 3
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	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
	(Narcotic effects) - Category 3
≤5	FLAMMABLE LIQUIDS - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
	(Narcotic effects) - Category 3
≤5	FLAMMABLE LIQUIDS - Category 2
	ACUTE TOXICITY (inhalation) - Category 4
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED
	EXPOSURE) - Category 2
	ASPIRATION HAZARD - Category 1
≤0.3	SKIN IRRITATION - Category 2
	SKIN SENSITIZATION - Category 1
≤0.3	TOXIC TO REPRODUCTION - Category 2
	≤5 ≤0.3

#### SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	xylene	1330-20-7	≥10 - <22
	butan-1-ol	71-36-3	≤6.1
	ethylbenzene	100-41-4	≤5
Supplier notification	xylene	1330-20-7	≥10 - <22
	butan-1-ol	71-36-3	≤6.1
	ethylbenzene	100-41-4	≤5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

#### **State regulations**

Massachusetts	<ul> <li>The following components are listed: titanium dioxide; XYLENE; N-BUTYL ALCOHOL; PROPYLENE GLYCOL METHYL ETHER; BARIUM SULFATE; ETHYL BENZENE</li> </ul>
New York	: The following components are listed: Xylene mixed; Butyl alcohol; Ethylbenzene
New Jersey	: The following components are listed: titanium dioxide; XYLENES; n-BUTYL ALCOHOL; PROPYLENE GLYCOL MONOMETHYL ETHER; barium sulfate; ETHYL BENZENE
Pennsylvania	<ul> <li>The following components are listed: titanium dioxide; BENZENE, DIMETHYL-;</li> <li>1-BUTANOL; 2-PROPANOL, 1-METHOXY-; BARIUM SULFATE; BENZENE, ETHYL-</li> </ul>
0 UZ 1 D 07	

#### California Prop. 65

**WARNING**: This product can expose you to chemicals including Titanium dioxide, Ethylbenzene and Silica, crystalline, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Ingredient name	Cancer	Reproductive		Maximum acceptable dosage level
titanium dioxide	Yes.	No.	-	-
ethylbenzene	Yes.	No.	Yes.	-
silica, crystalline - quartz	Yes.	No.	-	-

#### International regulations

<u>Chemical Weapon Convention List Schedules I, II & III Chemicals</u> 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 15. Regulatory information

International lists	
National inventory	
Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Europe	: Not determined.
Japan	: Not determined.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.

### Section 16. Other information

#### Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

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



#### Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 3	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

<u>History</u>	
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### Section 16. Other information

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 = Internediate 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)
References	UN = United Nations : Not available.

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.

Sers 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.