

Penguard Topcoat Comp A

1. Identification of the preparation and of the company

Product name and/or code : Penguard Topcoat Comp A
Label No. : 625
Supplier : Jotun (Singapore) Pte Ltd
 37 Tuas View Crescent
 Singapore 637236
 Phone: 6508 8288
 Fax: 6265 7484
 SDSJotun@jotun.com

Emergency telephone number : Jotun (Singapore) Pte Ltd, Tel: 6508 8288

Product use : Coatings: Solvent-borne.

2. Hazards identification

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Flammable.

Harmful by inhalation and in contact with skin. Risk of serious damage to eyes. Irritating to skin. May cause sensitisation by skin contact.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



Harmful

3. Composition/information on ingredients

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC.

Product/ingredient name	CAS no.	%	Classification		Type	Notes
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]		
epoxy resin (MW 700-1200)	25036-25-3	25-35	Xi; R36/38 R43	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317	[1]	-
xylene	1330-20-7	12,5-20	R10 Xn; R20/21 Xi; R38	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315	[1] [2]	C
butan-1-ol	71-36-3	10-15	R10 Xn; R22 Xi; R41, R37/38 R67	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 and H336	[1] [2]	-
Solvent naphtha (petroleum), light arom.	64742-95-6	5-10	R10 Xn; R65 Xi; R37 R66, R67 N; R51/53	Flam. Liq. 3, H226 STOT SE 3, H335 and H336i Asp. Tox. 1, H304 Aquatic Chronic 2, H411	[1] [2]	H-P
ethylbenzene	100-41-4	3-7	F; R11 Xn; R20	Flam. Liq. 2, H225 Acute Tox. 4, H332	[1] [2]	-
urea, polymer with formaldehyde, butylated	68002-19-7	<25	R53	Aquatic Chronic 4, H413	[1]	-
ethanol	64-17-5	1-5	F; R11	Flam. Liq. 2, H225	[2]	-

Penguard Topcoat Comp A

See Section 16 for the full text of the R-phrases declared above.

See Section 16 for the full text of the H statements declared above.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

4. First-aid measures

First-aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.

5. Fire-fighting measures

- Extinguishing media** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
- Extinguishing media not to be used** : Do not use water jet.
- Recommendations** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

6. Accidental release measures

- Personal precautions** : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.
- Spill** : 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). Preferably clean with a detergent. Avoid using solvents.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

- Handling** : Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. To dissipate static electricity during transfer, earth drum and connect to receiving container with bonding strap. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel.

Always keep in containers made from the same material as the original one.
Comply with the health and safety at work laws.

Information on fire and explosion protection

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

Storage

: Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8. Exposure controls/personal protection

Engineering measures

: Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

Ingredient name

Occupational exposure limits

xylene

EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values

STEL: 442 mg/m³ 15 minute(s).

STEL: 100 ppm 15 minute(s).

TWA: 221 mg/m³ 8 hour(s).

TWA: 50 ppm 8 hour(s).

butan-1-ol

ACGIH TLV (United States, 1/2011).

TWA: 20 ppm 8 hour(s).

Solvent naphtha (petroleum), light arom.

EU OEL (Europe, 6/2000).

TWA: 100 mg/m³ 8 hour(s). Form: All forms

TWA: 20 ppm 8 hour(s). Form: All forms

ethylbenzene

EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values

TWA: 100 ppm 8 hour(s).

TWA: 442 mg/m³ 8 hour(s).

STEL: 200 ppm 15 minute(s).

STEL: 884 mg/m³ 15 minute(s).

ethanol

ACGIH TLV (United States, 1/2011).

STEL: 1000 ppm 15 minute(s).

Personal protective equipment

Respiratory system

: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use respiratory mask with charcoal and dust filter when spraying this product.(as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoalfilter.

Skin and body

: Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

Hands

: For prolonged or repeated handling, use the following type of gloves: gloves: polyvinyl alcohol or nitrile.

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

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Eyes

: Use safety eyewear designed to protect against splash of liquids.

Penguard Topcoat Comp A

Physical state	: Liquid.
Odour	: Characteristic.
Colour	: Various colours.
Flash point	: Closed cup: 25°C (77°F)
Density	: 1.13 g/cm ³
Explosion limits	: 1.1 - 19%
Solubility	: Insoluble in the following materials: cold water and hot water.

10. Stability and reactivity

Stable under recommended storage and handling conditions (see section 7).

Hazardous decomposition products: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

Thermal decomposition (>200°C) may liberate anhydrides and relatively low concentrations of isocyanates.

11. Toxicological information

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 2 and 15 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. Swallowing may cause nausea, diarrhoea, vomiting, gastro-intestinal irritation and chemical pneumonia.

Contains epoxy resin (MW 700-1200). May produce an allergic reaction.

Risk of serious damage to eyes.

12. Ecological information

There are no data available on the preparation itself.
Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See Sections 3 and 15 for details.

Aquatic ecotoxicity

<u>Product/ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Species</u>	<u>Exposure</u>
Solvent naphtha (petroleum), light arom.	-	Acute EC50 <10 mg/L	Daphnia	48 hours
	-	Acute IC50 <10 mg/L	Algae	72 hours
	-	Acute LC50 <10 mg/L	Fish	96 hours
ethylbenzene	Population	Acute EC50 7,2 mg/L	Algae	48 hours
	Intoxication	Acute EC50 2,93 mg/L	Daphnia	48 hours
	Mortality	Acute LC50 4,2 mg/L	Fish	96 hours

Ecological information

Biodegradability

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

Bioaccumulative potential

<u>Product/ingredient name</u>	<u>LogK_{ow}</u>	<u>BCF</u>	<u>Potential</u>
xylene	3,12	-	high
butan-1-ol	0,88	-	low
ethanol	-0,31	-	low

AOX : The product contains organically bound halogens and can contribute to the AOX value in waste water.

13. Disposal considerations

Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.

European waste catalogue (EWC) : 08 01 11* Waste paint and varnish containing organic solvents or other dangerous substances. If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

14. Transport information

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.

International transport regulations

Proper shipping name : Paint.
UN Number : 1263
Class : 3
Packing group : III
Label :



Additional information

ADR / RID : Tunnel restriction code: (D/E)
Hazard identification number: 30
Special provisions: 640E
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, S-E
Marine pollutant: No.

IMDG: Viscous substance. Transport in accordance with paragraph 2.3.2.5 (applicable to receptacles < 30 litre capacity).

Transport in accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

15. Regulatory information

EU regulations : The product is classified and labelled for supply in accordance with the Directive 1999/45/EC as follows:

Hazard symbol or symbols :



Harmful

Risk phrases : R10- Flammable.
R20/21- Harmful by inhalation and in contact with skin.
R41- Risk of serious damage to eyes.
R38- Irritating to skin.
R43- May cause sensitisation by skin contact.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases : S23- Do not breathe vapour / spray.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S51- Use only in well-ventilated areas.

Contains : epoxy resin (MW 700-1200)
butan-1-ol

Industrial use : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

16. Other information

CEPE Classification : 1

Europe

Full text of abbreviated H statements : H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation. May cause drowsiness or dizziness.
and
H336
H335 May cause respiratory irritation. May cause drowsiness or dizziness.
and
H336i
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

Full text of abbreviated R phrases : R11- Highly flammable.
R10- Flammable.
R20- Harmful by inhalation.
R22- Harmful if swallowed.
R20/21- Harmful by inhalation and in contact with skin.
R65- Harmful: may cause lung damage if swallowed.
R41- Risk of serious damage to eyes.
R37- Irritating to respiratory system.
R38- Irritating to skin.
R36/38- Irritating to eyes and skin.
R37/38- Irritating to respiratory system and skin.
R43- May cause sensitisation by skin contact.
R66- Repeated exposure may cause skin dryness or cracking.
R67- Vapours may cause drowsiness and dizziness.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53- May cause long-term adverse effects in the aquatic environment.

This Safety Data Sheet is prepared in accordance with Annex II to Regulation (EC) No 1907/2006.

Date of issue : 05.12.2013.

Version : 2.01

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.