

SAFETY DATA SHEET



Hardtop PSO - Comp. B

1. Identification of the substance/preparation and of the company/undertaking

Product name and/or code : Hardtop PSO - Comp. B
Supplier/Manufacturer : Jotun Paints (Europe) Ltd.
Stather Road
Flixborough, Scunthorpe
North Lincolnshire
DN15 8RR
England

Tel: +44 17 24 40 00 00
Fax: +44 17 24 40 01 00

Emergency telephone number : Contact National Poison Centre via Hospital or Registered Medical Practitioner

Product use : Coatings: Hardener Solvent-borne.

2. Composition/information on ingredients

Chemical name*	CAS no.	EC Number	%	Classification
Xylene	1330-20-7	215-535-7	10 - 25	R10 Xn; R20/21 Xi; R38
3-Aminopropyltriethoxysilane	919-30-2	213-048-4	10 - 25	Xn; R22 C; R34
Butan-1-ol	71-36-3	200-751-6	2.5 - 10	R10 Xn; R22 Xi; R37/38, 41 R67
Ethylbenzene	100-41-4	202-849-4	2.5 - 10	F; R11 Xn; R20
n-Butyl methacrylate	97-88-1	202-615-1	0 - 1	R10 Xi; R36/37/38 R43
2-Hydroxyethyl acrylate	818-61-1	212-454-9	0 - 1	T; R24 C; R34 R43 N; R50
See section 16 for the full text of the R Phrases declared above				

* Occupational Exposure Limit(s), if available, are listed in Section 8

3. Hazards identification

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

Flammable.

Harmful by inhalation and in contact with skin.

Causes burns.



Corrosive

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.
- 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. Give nothing by mouth. If unconscious place in recovery position and seek medical advice.
- 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.
- 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.
Not to be used : waterjet.
- 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 sewers or waterways

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 materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Do not allow to enter drains or watercourses. Clean preferably with a detergent; avoid use of solvents. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

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

7. Handling and storage

- Handling** : Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration 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 anti-static footwear and clothing and floors should be of the conducting type.

Keep container tightly closed. 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 and spray mist arising from the application of this preparation. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.

Put on appropriate personal protective equipment (see Section 8).

Never use pressure to empty : container is not a pressure vessel. Always keep in containers of same material as the original one.

Comply with the health and safety at work laws.

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. Observe label precautions. Store in a cool, well-ventilated area away from incompatible materials and ignition sources.

Keep away from: oxidising agents, strong alkalis, strong acids.
No smoking. Prevent unauthorised access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Do not empty into drains..

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 vapour below the OEL, suitable respiratory protection must be worn.

Ingredient name

Occupational exposure limits

Xylene	EH40-OES (United Kingdom (UK), 2003). Skin STEL: 441 mg/m ³ 15 minute(s). STEL: 100 ppm 15 minute(s). TWA: 220 mg/m ³ 8 hour(s). TWA: 50 ppm 8 hour(s).
Butan-1-ol	EH40-OES (United Kingdom (UK), 2002). Skin STEL: 154 mg/m ³ 15 minute(s). STEL: 50 ppm 15 minute(s).
Ethylbenzene	EH40-OES (United Kingdom (UK), 2002). Skin STEL: 552 mg/m ³ 15 minute(s). STEL: 125 ppm 15 minute(s). TWA: 441 mg/m ³ 8 hour(s). TWA: 100 ppm 8 hour(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 charcoal filter (A2).
- Skin and body** : Personnel should wear anti-static clothing made of natural fibre or of high temperature resistant synthetic fibre.
- Hands** : For prolonged or repeated handling, use gloves: polyvinyl alcohol or nitrile.
- Barrier creams may help to protect the exposed areas of the skin, they should however 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.
- Eyes** : Use safety eyewear designed to protect against splash of liquids.

9. Physical and chemical properties

- Physical state** : Liquid.
- Odour** : Characteristic.
- Colour** : Various colours.
- Flash point** : Closed cup: 29°C (84.2°F).
- Density** : 1 g/cm³
- Lower explosion limit** : The greatest known range is Lower: 1.4% Upper: 11.3% (Butan-1-ol)
- Solubility** : Insoluble in cold water, 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 in order to avoid strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

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 Chapters 2 and 15 for details.

Exposure to component solvents vapours concentration 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 kidney, 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. The liquid splashed in the eyes may cause irritation and reversible damage.

Contains (n-Butyl methacrylate, 2-Hydroxyethyl acrylate). May produce an allergic reaction.

Corrosive to eyes and skin. Vapour may be irritating to eyes and respiratory system. Harmful if ingested. Material is corrosive to the mucous membranes.

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 not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 2 for details.

Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
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Xylene	Oncorhynchus mykiss (LC50)	96 hour(s)	3.3 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	8.2 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	8.6 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	12 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	13.3 mg/l
	Pimephales promelas (LC50)	96 hour(s)	13.4 mg/l
Butan-1-ol	Daphnia magna (EC50)	48 hour(s)	1983 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	100 mg/l
	Pimephales promelas (LC50)	96 hour(s)	1730 mg/l
	Pimephales promelas (LC50)	96 hour(s)	1910 mg/l
	Pimephales promelas (LC50)	96 hour(s)	1940 mg/l
	Daphnia magna (EC50)	48 hour(s)	2.93 mg/l
Ethylbenzene	Daphnia magna (EC50)	48 hour(s)	2.97 mg/l
	Selenastrum capricornutum (EC50)	48 hour(s)	7.2 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	4.2 mg/l
	Pimephales promelas (LC50)	96 hour(s)	9.09 mg/l
	Poecilia reticulata (LC50)	96 hour(s)	9.6 mg/l
	Pimephales promelas (LC50)	96 hour(s)	4.8 mg/l

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

14. Transport information

International transport regulations

Proper shipping name : Polyamines, liquid, corrosive, flammable, n.o.s. (3-Aminopropyltriethoxysilane, Xylene)
UN Number : 2734
Class : 8
Packing group : II
Label :



Additional Information

ADR / RID : Hazard identification number: 83
IMDG : Emergency schedules (EmS): F-E, S-C
 Marine pollutant: No.
IATA : Not available.

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

15. Regulatory information

EU Regulations : The product is labelled as follows, in accordance with local regulations:

Hazard symbol(s) :



Corrosive

Contains : Xylene
 3-Aminopropyltriethoxysilane

Indication of Danger :
Risk Phrases : R10- Flammable.
 R20/21- Harmful by inhalation and in contact with skin.
 R34- Causes burns.

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.
 S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S51- Use only in well-ventilated areas.

Additional warning phrases : Contains (n-Butyl methacrylate, 2-Hydroxyethyl acrylate). May produce an allergic reaction.

16. Other information

CEPE Classification : 1
Full text of R phrases referred to in sections 2 and 3 - United Kingdom (UK) : R11- Highly flammable.
R10- Flammable.
R24- Toxic in contact with skin.
R20- Harmful by inhalation.
R20/21- Harmful by inhalation and in contact with skin.
R22- Harmful if swallowed.
R34- Causes burns.
R36/37/38- Irritating to eyes, respiratory system and skin.
R37/38- Irritating to respiratory system and skin.
R38- Irritating to skin.
R41- Risk of serious damage to eyes.
R43- May cause sensitisation by skin contact.
R67- Vapours may cause drowsiness and dizziness.
R50- Very toxic to aquatic organisms.

Notice to reader

History

Date of printing : 13.07.2004.
Date of issue : 13.07.2004.
Date of previous issue : No Previous Validation.
Version : 1
Prepared by : Jotun Group Product Safety Department

The information of this SDS is based on the present state of our knowledge and on current EU and national laws. The product is not to be used for other purposes than those specified under section 1 without first obtaining written handling instruction. It is always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules and legislation. The information in this SDS is meant as a description of the safety requirements of our product : it is not to be considered as a guarantee of the products properties.

 Indicates information that has changed from previously issued version.

Version 1

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