

SAFETY DATA SHEET



Muki EPS - Comp. A

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

Product name and/or code : Muki EPS - Comp. A
Label No. : 4434
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: Epoxy. / Solvent-borne.

2. Composition/information on ingredients

Chemical name*	CAS no.	EC number	%	Classification
Toluene	108-88-3	203-625-9	25 - 50	F; R11 Repr. Cat. 3; R63 Xn; R48/20, R65 Xi; R38 R67
butanone	78-93-3	201-159-0	10 - 25	F; R11 Xi; R36 R66, R67
ethanol	64-17-5	200-578-6	2.5 - 10	F; R11
Xylene	1330-20-7	215-535-7	2.5 - 10	R10 Xn; R20/21 Xi; R38
amines, n-tallow alkyltrimethylenedi-, oleates	61791-53-5	263-186-4	0 - 1	C; R34 N; R50
See section 16 for the full text of the R-phrases declared above				

Occupational exposure limits, 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.

Highly flammable.

Possible risk of harm to the unborn child.

Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Irritating to skin.

Vapours may cause drowsiness and dizziness.



Highly flammable



Harmful

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.

Date of issue : 29.12.2005.

Page: 1/5

- 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 : 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 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 material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Do not allow to enter drains or watercourses. Preferably clean with a detergent. Avoid using solvents. If the product contaminates lakes, rivers, or sewers, inform the 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 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 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, spray or 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 made from the 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 that have been 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 vapours below the OEL, suitable respiratory protection must be worn.

Ingredient name

Occupational exposure limits

Toluene	EH40-WEL (United Kingdom (UK), 1/2005). Skin STEL: 574 mg/m ³ 15 minute/minutes. Form: All forms STEL: 150 ppm 15 minute/minutes. Form: All forms TWA: 191 mg/m ³ 8 hour/hours. Form: All forms TWA: 50 ppm 8 hour/hours. Form: All forms
butanone	EH40-WEL (United Kingdom (UK), 1/2005). Skin STEL: 899 mg/m ³ 15 minute/minutes. Form: All forms STEL: 300 ppm 15 minute/minutes. Form: All forms TWA: 600 mg/m ³ 8 hour/hours. Form: All forms TWA: 200 ppm 8 hour/hours. Form: All forms
ethanol	EH40-WEL (United Kingdom (UK), 1/2005). TWA: 1920 mg/m ³ 8 hour/hours. Form: All forms TWA: 1000 ppm 8 hour/hours. Form: All forms
Xylene	EH40-WEL (United Kingdom (UK), 1/2005). Skin STEL: 441 mg/m ³ 15 minute/minutes. Form: All forms STEL: 100 ppm 15 minute/minutes. Form: All forms TWA: 220 mg/m ³ 8 hour/hours. Form: All forms TWA: 50 ppm 8 hour/hours. Form: All forms

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 antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.
- Hands** : For prolonged or repeated handling, use 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.
- 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: -5°C (23°F).
- Density** : 1.1 g/cm³
- Lower explosion limit** : Lower: 1.1% (Xylene) Upper: 19% (Ethanol)
- 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 to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

11. Toxicological information

There is 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.

Reproductive toxicity : Contains material which may cause birth defects based, on animal data.

12. Ecological information

There is 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

Date of issue : 29.12.2005.

Ingredient name**Species****Period****Result**

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
Toluene	Daphnia magna (EC50)	48 hour/hours	6 mg/l
	Daphnia magna (EC50)	48 hour/hours	6.56 mg/l
	Oncorhynchus mykiss (EC50)	48 hour/hours	6.78 mg/l
	Oncorhynchus mykiss (LC50)	96 hour/hours	5.8 mg/l
	Oncorhynchus mykiss (LC50)	96 hour/hours	6.78 mg/l
butanone	Pimephales promelas (LC50)	96 hour/hours	12.6 mg/l
	Daphnia magna (EC50)	48 hour/hours	5091 mg/l
ethanol	Pimephales promelas (LC50)	96 hour/hours	3220 mg/l
	Daphnia magna (EC50)	48 hour/hours	2 mg/l
Xylene	Daphnia magna (EC50)	48 hour/hours	9.3 mg/l
	Pimephales promelas (LC50)	96 hour/hours	>100 mg/l
	Daphnia magna (LC50)	96 hour/hours	>100 mg/l
	Oncorhynchus mykiss (LC50)	96 hour/hours	13000 mg/l
	Oncorhynchus mykiss (LC50)	96 hour/hours	3.3 mg/l
	Oncorhynchus mykiss (LC50)	96 hour/hours	8.2 mg/l
	Lepomis macrochirus (LC50)	96 hour/hours	8.6 mg/l
	Lepomis macrochirus (LC50)	96 hour/hours	12 mg/l
	Lepomis macrochirus (LC50)	96 hour/hours	13.3 mg/l
	Pimephales promelas (LC50)	96 hour/hours	13.4 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 : Paint.
UN Number : 1263
Class : 3
Sub-risk : -
Packing group : II
Label :

**Additional information**

ADR / RID : Hazard identification number: 33
Special provisions: 640D
IMDG : Emergency schedules (EmS): F-E, S-E
Marine pollutant: No.

IATA : -

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/symbols :



Highly flammable



Harmful

Contains : Toluene

Risk phrases : R11- Highly flammable.
R63- Possible risk of harm to the unborn child.
R48/20- Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R38- Irritating to skin.
R67- Vapours may cause drowsiness and dizziness.

Safety phrases : S23- Do not breathe vapour / spray.
S36/37- Wear suitable protective clothing and gloves.
S51- Use only in well-ventilated areas.

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.
R63- Possible risk of harm to the unborn child.
R20/21- Harmful by inhalation and in contact with skin.
R48/20- Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R65- Harmful: may cause lung damage if swallowed.
R34- Causes burns.
R36- Irritating to eyes.
R38- Irritating to skin.
R66- Repeated exposure may cause skin dryness or cracking.
R67- Vapours may cause drowsiness and dizziness.
R50- Very toxic to aquatic organisms.

Notice to reader

History

Date of printing : 29.12.2005.
Date of issue : 29.12.2005.
Date of previous issue : 07.03.2005.
Version : 5
Prepared by : Jotun Group Product Safety Department

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.

 Indicates information that has changed from previously issued version.