

SAFETY DATA SHEET



Muki Z 3000 Comp. B

1. Identification of the preparation and of the company

Product name and/or code : Muki Z 3000 Comp. B
Label No. : 585
Supplier/Manufacturer : Jotun Paints (Europe) Ltd.
 Stather Road
 Flixborough, Scunthorpe
 North Lincolnshire
 DN15 8RR
 England

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

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. Irritating to eyes.

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



Harmful



Dangerous for the environment

3. Composition/information on ingredients

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

Chemical name*	CAS number	EC number	% by weight	Classification
zinc powder - zinc dust (stabilized)	7440-66-6	231-175-3	25 - 50	N; R50/53
xylene	1330-20-7	215-535-7	10 - 25	R10 Xn; R20/21 Xi; R38
butan-1-ol	71-36-3	200-751-6	2.5 - 10	R10 Xn; R22 Xi; R41, R37/38 R67
zinc oxide	1314-13-2	215-222-5	1 - 2.5	N; R50/53
ethylbenzene	100-41-4	202-849-4	1 - 2.5	F; R11 Xn; R20
1-methoxy-2-propanol	107-98-2	203-539-1	1 - 2.5	R10
cadmium	7440-43-9	231-152-8	0 - 1	Xn; R20/21/22 N; R50/53
See section 16 for the full text of the R-phrases declared above				

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.
- 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 : 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 areas 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.

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
xylene	EH40-WEL (United Kingdom (UK), 9/2006). Skin WEL 15 min limit: 441 mg/m ³ 15 minute(s). WEL 8 hrs limit: 220 mg/m ³ 8 hour(s).
butan-1-ol	EH40/2005 WELs (United Kingdom (UK), 8/2007). Skin STEL: 154 mg/m ³ 15 minute(s).
ethylbenzene	EH40/2005 WELs (United Kingdom (UK), 8/2007). Skin STEL: 552 mg/m ³ 15 minute(s). TWA: 100 ppm 8 hour(s).
1-methoxy-2-propanol	EH40/2005 WELs (United Kingdom (UK), 8/2007). Skin STEL: 560 mg/m ³ 15 minute(s). TWA: 375 mg/m ³ 8 hour(s).
cadmium	EH40-WEL (United Kingdom (UK), 8/2007). Notes: As Cd WEL 8 hrs limit: 0,025 mg/m ³ , (As Cd) 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 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.

9. Physical and chemical properties

Physical state	: Liquid.
Odour	: Characteristic.
Colour	: Various colours.
Flash point	: Closed cup: 24°C (75,2°F)
Density	: 2.41 g/cm ³
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.

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.

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 classified for eco-toxicological properties accordingly. See Sections 2 and 15 for details.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
zinc	Mortality	Acute LC50 0,24 mg/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
	Mortality	Acute LC50 0,45 ppm Fresh water	Fish - Cyprinus carpio	96 hours
	Mortality	Acute LC50 68 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
xylene	Mortality	Acute LC50 8500 ug/L Marine water	Crustaceans - Daggerblade grass shrimp - Palaemonetes pugio	48 hours
	Mortality	Acute LC50 3300 to 4093 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus	96 hours

butan-1-ol	Intoxication	Acute EC50 1983000 to 2072000 ug/L Fresh water	mykiss Daphnia - Water flea - Daphnia magna	48 hours
	Mortality	Acute LC50 2250000 to 2400000 ug/L Marine water	Fish - Bleak - Alburnus alburnus	96 hours
	Mortality	Acute LC50 100 to 500 mg/L Fresh water	Fish - Bluegill - Lepomis macrochirus	96 hours
	Mortality	Acute LC50 1940000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
	Mortality	Acute LC50 1910000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
	Mortality	Acute LC50 1730000 to 1840000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
	Mortality	Acute LC50 2300000 ug/L Marine water	Fish - Bleak - Alburnus alburnus	96 hours
	zinc oxide	Intoxication	Acute EC50 >1000 ppm Fresh water	Daphnia - Water flea - Daphnia magna
Mortality		Acute LC50 1,1 to 2,5 ppm Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
ethylbenzene	Intoxication	Acute EC50 2930 to 4400 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Mortality	Acute LC50 4200 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
cadmium	Intoxication	Acute EC50 24,4 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Mortality	Acute LC50 2,1 to 4,44 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours

Ecological information

Biodegradability

Product/ingredient name

xylene

Aquatic half-life

-

Photolysis

-

Biodegradability

Readily

Bioaccumulative potential

Product/ingredient name

xylene

LogP_{ow}

3.12

BCF

-

Potential

high

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 : Hazard identification number: 30
Special provisions: 640E
IMDG : Emergency schedules (EmS): F-E, S-E
Marine pollutant: No.

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

These zinc types have been tested according to the criteria for classes 4.1, 4.2 and 4.3. The test results show that these types do not meet the criteria for classifying in class 4.1, 4.2, 4.3 : BAM, 2005 Report II.2-916/04.

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



Dangerous for the environment

Risk phrases : R10- Flammable.
R20/21- Harmful by inhalation and in contact with skin.
R36- Irritating to eyes.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

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

Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK)

: R11- Highly flammable.
R10- Flammable.
R20- Harmful by inhalation.
R22- Harmful if swallowed.
R20/21- Harmful by inhalation and in contact with skin.
R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
R41- Risk of serious damage to eyes.
R36- Irritating to eyes.
R38- Irritating to skin.
R37/38- Irritating to respiratory system and skin.
R67- Vapours may cause drowsiness and dizziness.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information in this Safety Data Sheet is required pursuant to EU Directive 91/155/EEC and its amendments.

Date of issue : 02.06.2008.

Version : 1

Indicates information that has changed from previously issued version.

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.