



MATERIAL SAFETY DATA SHEET

JOTAGUARD 550 – COMP. B

Revision date: 01-03-1993

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1. IDENTIFICATION OF THE PREPARATION AND COMPANY

Product name : JOTAGUARD 550 - COMP. B
Intended use : Hardener for epoxy tar paint
Name of company : Jotun (M) Sdn Bhd
Address : Lot 7, Persiaran Perusahaan, Seksyen 23
40300 Shah Alam, Selangor, Malaysia
Telephone No : +603-51235500

For more information about product type and use : See Product Data Sheet.

2. COMPOSITION/INFORMATION OF INGREDIENTS

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

Names	Conc. Range	Symbol	R phrases (*)
Epoxy resin	30-60%	Xi	36/38 – 43
Xylene	<20	Xn	20/21 – 38
1-methoxy-2-propanol	2.5-10%		

(*) See full text of phrases under chapter 16

3. HAZARDS IDENTIFICATION OF THE PREPARATION

Flammable. Harmful by inhalation, in contact with skin. Irritating to eyes and skin. May cause sensitization by skin contact. The preparation is a skin and respiratory sensitizer. It is also a skin irritant and repeated contact may increase this effect.

4. 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 patient warm and at rest, if breathing is irregular or stopped, administer artificial respiration. Give nothing by mouth. If unconscious place in recovery position and seek medical advice.

Eye contact

Irrigate copiously with clean, fresh water for a least 10 minutes, holding the eyelids apart and seek medical advice.

Skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion

If accidentally swallowed obtain immediate medical attention. Keep at rest.
Do NOT induce vomiting.

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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 allow run-off from fire fighting to enter drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

Exclude sources of ignition and ventilate the area. Avoid breathing vapour. Refer to protective measures listed in section 7 and 8. 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 entering 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.

7. HANDLING AND STORAGE

Handling

Vapours are heavier than air and may spread along floors. Vapour may form explosive mixtures with air. Prevent the creation of flammable or explosive concentration of vapour in air and avoid vapour concentration higher than the occupational exposure limits.

Additionally, the product should only be used in area from which all-naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.

Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear anti-static footwear and clothing and floors should be of the conducting type.

Keep container tightly closed. Isolated from sources of heat, sparks and open flame. No sparking tools should be used.

Avoid skin and eye contact. Avoid inhalation of vapour and spray mist. Smoking, eating and drinking should be prohibited in application area.

For personal protection see section 8.

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

Comply with the health and safety at work laws..

Storage

Store in accordance with the national regulations for flammable liquids. Observe label precautions. Store between -20°C and 40°C in a dry, well-ventilated place away from sources of heat and direct sunlight. Keep away from sources of ignition. Keep away from oxidising agents, from strongly alkaline and strongly acid materials. No smoking. Prevent unauthorised access. Containers, which are opened, must be carefully resealed and kept upright to prevent leakage.

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8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Measures

Provide adequate ventilation. Where reasonably practicable this should be achieved by 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.

Exposure Limits

Occupational exposure limits for:

	LTEL (1)		STEL (2)	
	ppm	mg/m ³	ppm	mg/m ³
Xylene	100	435	150	650
1-methoxy-2-propanol	100	360	300	1080

According to HSE Document EH40/93.

(1) Long term exposure limits.

(2) Short term exposure limits.

Personal Protection

Respiratory protection

When workers are facing concentration above the exposure limit they must use appropriate certified respirators.

Hand protection

For prolonged or repeated contact, use nitrile rubber gloves.

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

Eye protection

Use safety eyewear designed to protect against splash of liquids.

Skin protection

Personnel should wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber. All parts of the body should be washed after contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: liquid.

Flash point: 25°C

Method: ISO 3680 (Setaflash)

Viscosity: 77-82 KU at 23°C

Method: ASTM D562 (Stormer viscometer)

Specific gravity: 1.03 g/cm³

Method: ISO 2811 (Pycnometer)

Vapour density: greater than air

Lower explosion limit: 1%

Solubility in water: Not soluble

10. STABILITY AND REACTIVITY

Stable under recommended storage and handling conditions.(see section 7). When exposed too high temperature may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, smoke and oxides of nitrogen. Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

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11. TOXICOLOGICAL INFORMATION

There are no data available on the preparation itself.

Exposure to component solvents vapour 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 effect on kidney, liver and central nervous system. 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. Based on the properties of epoxy constituent and considering toxicological data on similar preparations, this preparation may be a skin and respiratory sensitizer and an irritant.

Low molecular epoxy constituents are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation to sensitisation, possible with cross-sensitisation to other epoxies.

12. ECOLOGICAL INFORMATION

There are not data available on the preparation itself. The product should not be allowed to enter drains or watercourses.

13. DISPOSAL CONSIDERATIONS

Do not allow into drains or watercourses. Wastes and emptied containers should be disposed off in accordance with the requirements of Control of Pollution Act 1974, the Control of Pollution (Special Waste) Regulations 1980 (SI 1980/1709) and the Environmental Protection Act 1990 (Section 34). Consult your local authority.

14. TRANSPORT INFORMATION

Transport only in accordance with ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport.

ADR/RID:	Class: -----	Label :	
	Transport document name	: Paint	
IMDG:	Class: 3.3 -----	UN No.: 1263 -----	Label: No.3.3
	Proper shipping name	: Paint	
	EMS:3-05 -----	MFAG : 310 -----	Marine pollutant: Yes
ICAO/IATA:	Class: 3.3 -----	UN No. : 1263 -----	Label: No.3.3
	Proper shipping name	: Paint	

Packaging group: III

15. REGULATORY INFORMATION

In accordance with the Chemical Hazard Information Regulation 1993, the product is labelled as follow:

Danger classification: Harmful

Contains:

Epoxy resin	30-60%
Xylene	10-30%
1-methoxy-2-propanol	1-5%

R-phrases: 10-20/21-36/38-43

Flammable. Harmful by inhalation, and in contact with skin. Irritating to skin. May cause sensitization by skin contact.

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S-phrases : 2-23-24-26-38-51-P92

KEEP OUT OF REACH OF CHILDREN. Do not breathe vapour/spray. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of insufficient ventilation, wear suitable respiratory equipment. Use only in well ventilated areas. Contains epoxy constituents. See information provided by the present Material Safety Data Sheet.

Personal Protection Advice 3/3

R.A.Q. to ventilate to 10% of LEL	:	89	m ³ /l
R.A.Q. to ventilate to O.E.L. of vapours	:	1064	m ³ /l
Occupational exposure limit (O.E.L) spray mist	:	968	mg/m ³
Occupational exposure limit (O.E.L) vapours	:	427	mg/m ³

16 OTHER INFORMATION

Full text of R-phrases with no. referred to in section 2:

36/38	:	Irritating to eyes and skin.
43	:	May cause sensitization by skin contact.
20/21	:	Harmful by inhalation and in contact with skin.
38	:	Irritating to skin

This information in this MSDS is based on the present state of our knowledge and on current EC and national laws, as the users' working conditions is beyond our knowledge and control. 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 MSDS is meant as a description of the safety requirement of our product. It is not to be considered as a guarantee of the products' properties.

The information in this MSDS is required pursuant to EC directive 91/155/EEC