

Material Safety Data Sheet

CUROX M-100

Infosafe™ NLYKU **Issue Date** January 2007 **Status** ISSUED by BS: 1.9.40
No. NUPLEXIN

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name CUROX M-100

Product Code G680280

Company Name NUPOL COMPOSITES, A DIVISION OF NUPLEX INDUSTRIES (AUST) PTY.
LTD (ABN 25000045572)

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Recommended Use Initiator for the curing of polyester and vinyl ester resins.

Other Names	Name	Product Code
	CUROX M-100 RED	G680249

2. HAZARDS IDENTIFICATION

Hazard Classification Australia:
Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

New Zealand:
Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
Classified as Dangerous Goods for transport, according to the New Zealand Standard NZS 5433:1999 Transport of Dangerous Goods on Land.
HSNO Classification:

- 5.2D - Substance that is an organic peroxide.
 6.1D - Substance that is moderate acutely toxic.
 6.9B - Substance that is harmful to human target organs or systems.
 8.2B - Substance that is corrosive to dermal tissue.
 8.3A - Substance that is corrosive to ocular tissue.
 9.1B - Substance that is ecotoxic in the aquatic environment.
 9.3C - Substance that is harmful to terrestrial vertebrates.

Risk Phrase(s) R7 May cause fire.
 R22 Harmful if swallowed.
 R34 Causes burns.

Safety Phrase (s) S14 Keep away from reducing agents (eg amines), acids, alkalis and heavy metal compounds (eg accelerators, driers and metal soaps)
 S20 When using do not eat or drink.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S28 After contact with skin, wash immediately with plenty of soap and water
 S3/7 Keep container tightly closed in a cool place.
 S45 In case of accident or if you feel unwell seek medical advice immediately
 S50 Do not mix with peroxide accelerators or reducing agents
 S24/25 Avoid contact with skin and eyes.
 S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Methyl ethyl ketone peroxide	1338-23-4	30-60 %
	Methyl ethyl ketone	78-93-3	0-<10 %
	Ingredients determined not to be hazardous.		Balance to 100%
	Hydrogen peroxide	7722-84-1	0-<10 %

4. FIRST AID MEASURES

Inhalation If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion Do NOT induce vomiting. Wash out mouth with water and give plenty of water to drink. Seek medical attention.

Skin Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. Seek medical attention.

Eye If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse

contaminated water into the non-affected eye. Seek medical attention.

First Aid Facilities

Eye wash fountains and safety showers should be easily accessible.

Advice to Doctor

Treat symptomatically.

Other Information

For advice, contact a Poisons Information Centre (Phone eg Australia 131 126; New Zealand 0800 764 766) or a doctor (at once).

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Use large quantities of fine water spray.

Hazards from Combustion Products

This product will support combustion of other materials.

Specific Hazards

Burns fiercely when ignited. Containers involved in a fire can constitute an explosion risk if confined. Jetting of burning liquid and fireballs can also occur. Organic peroxides provide oxygen for combustion. Simple smothering actions are not effective against established fires. Due to possibility of re-ignition, extinguished residues must be thoroughly cooled before approaching.

Hazchem Code

2WE

Decomposition Temp.

Self accelerating decomposition temperature (SADT) = 60°C

Precautions in connection with Fire

Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Wear appropriate personal protective equipment and clothing to minimise exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If possible contain the spill. Place inert absorbent material onto spillage. Use clean non-sparking tools to collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to federal, Environmental Protection Authority and state regulations. If the spillage enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

Precautions for Safe Handling Use in a well ventilated area. DO NOT store or use in confined spaces. Build up of mists or vapours in the atmosphere must be prevented. Avoid breathing in spray or mists or vapours. Do not use near welding or other ignition sources and avoid sparks. Do not smoke. When dealing with this product, repeated or prolonged skin exposure without protection should be prevented in order to lessen the possibility of skin disorders. It is essential that all who come into contact with this material maintain high standards of personal hygiene ie. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for Safe Storage Store in a cool, dry well-ventilated area away from heat, sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Do NOT pressurise, cut, heat or weld containers as they may contain hazardous residues.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards Australian National Occupational Health And Safety Commission (NOHSC) Exposure Standards:

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Methyl ethyl ketone peroxide	0.2	1.5 Peak	-	-
Methyl ethyl ketone	150	445	300	890
Hydrogen peroxide	1	1.4	-	-

New Zealand Occupational Safety and Health Service (OSH) Workplace Exposure Standards:

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Methyl ethyl ketone peroxide	0.2	1.5 ceiling	-	-
Methyl ethyl ketone	150	445	300	890
Hydrogen peroxide	1	1.4	-	-

Biological Limit Values No biological limit allocated.

Engineering Controls Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required. Refer to AS1940 - The storage and handling of flammable and combustible liquids and AS2430 - Explosive gas atmospheres for further information concerning ventilation requirements.

Respiratory Protection If engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.

Eye Protection Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection Suitable work wear should be worn to protect personal clothing, eg cotton overalls buttoned at neck and wrist. When large quantities are handled the use of plastic aprons and rubber boots is recommended. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear, colourless, mobile liquid.

Odour Mildly pungent odour.

Decomposition Temperature Self accelerating decomposition temperature (SADT) = 60°C

Melting Point Not applicable.

Boiling Point Not applicable.

Solubility in Water 1% miscible.

Specific Gravity 1.15 @ 20°C

pH Value Not available.

Vapour Pressure 50 kPa (55°C)

Vapour Density (Air=1) Not available.

Volatile Component 5%

Flash Point 63°C (setflash)

Auto-Ignition Temperature Not available.

Flammable Limits - Lower Not available.

Flammable Limits - Upper Not available.

10. STABILITY AND REACTIVITY

Chemical Stability	Decomposes very slowly at ambient temperatures to give off oxygen.
Conditions to Avoid	Heat, direct sunlight, open flames or other sources of ignition.
Incompatible Materials	Avoid contact with rust, iron and Copper. Contact with incompatible materials such as acids, alkalies, heavy metals and reducing agents will result in hazardous decomposition. Do not mix with peroxide accelerators. Use only Stainless steel 316, PVC, polyethylene or glass-lined equipment.
Hazardous Decomposition Products	Flammable gases and vapours.
Hazardous Polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	LD50/dermal/rabbit: 4000 mg/kg LD50/rat/inhalation/4 hrs: 17 mg/l LD50/rat/oral: 1017 mg/kg
Inhalation	Irritating to respiratory system. Inhalation of product vapours will cause irritation of the nose, throat and respiratory system.
Ingestion	Harmful and corrosive if swallowed. Ingestion of this product may cause nausea, vomiting, abdominal pain and chemical burns to the mouth, throat and stomach.
Skin	Will cause severe irritation and possible burns to the skin, which can result in redness, itchiness, pain and swelling. Repeated or prolonged contact may also lead to dermatitis.
Eye	Will cause severe irritation to the eyes, which can result in redness, stinging, pain, loss of colour vision (blue vision), corneal oedema, lachrymation and possibly irreversible eye damage i.e. corneal burns.
Chronic Effects	Prolonged or repeated skin contact may cause defatting leading to dermatitis.

12. ECOLOGICAL INFORMATION

Ecotoxicity	No data is available for this material.
Persistence / Degradability	No data is available for this material.

Mobility No data is available for this material.

Environment Protection Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations Dispose of waste according to federal, EPA and state regulations.

14. TRANSPORT INFORMATION

Transport Information

AUSTRALIA

This material is classified as a Class 5.2 Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods. Class 5.2 Organic Peroxides shall not be loaded or packed in the same vehicle or freight as,

- Class 1, Explosives,
- Class 2.1, Flammable Gases,
- Class 2.2, Non-flammable Non-toxic Gases,
- Class 2.3, Toxic Gases,
- Class 3, Flammable Liquids,
- Class 4.1, Flammable Solids,
- Class 4.2, Spontaneously Combustible Substances,
- Class 4.3, Dangerous When Wet Substances,
- Class 5.1, Oxidising Agents,
- Class 6.1, Toxic Substances and Class 6.2 Infectious Substances (where the substances are fire risk substances),
- Combustible liquid
- Class 7, Radioactive Substances,
- Class 8, Corrosive Substances,
- Class 9, Miscellaneous Dangerous Goods (where the miscellaneous dangerous goods are fire risk substances), and combustible liquids.

NEW ZEALAND

This material is classified as a Class 5.2 - Organic Peroxide according to NZS 5433:1999 Transport of Dangerous Goods on Land.

Must not be loaded in the same freight container or on the same vehicle with:

- Class 1, Explosives
- Class 2.1, Flammable gases
- Class 2.3, Toxic gases
- Class 3, Flammable liquids
- Class 4.1, Flammable solids
- Class 4.2, Spontaneously combustible substances
- Class 4.3, Dangerous when wet substances
- Class 5.1, Oxidizing substances
- Class 6, Infectious substances
- Class 7, Radioactive materials unless specifically exempted.
- Class 8, Corrosive substances

Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:

- Class 2.2, Non-flammable compressed gas
- Class 6.1, Toxic substances

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:

- Class 3, Flammable liquids
- Class 4.1, Flammable solids
- Class 4.2, Spontaneously combustible substances
- Class 4.3, Dangerous when wet substances
- Class 5.1, Oxidizing substances
- Class 6.1, Toxic substances
- Class 6.2, Infectious substances
- Class 8, Corrosive substances

U.N. Number 3105

Proper Shipping Name ORGANIC PEROXIDE TYPE D, LIQUID - (CONTAINS METHYL ETHYL KETONE PEROXIDE)

DG Class 5.2

Hazchem Code 2WE

EPG Number 5K1

IERG Number 32

15. REGULATORY INFORMATION

Regulatory Information Australia:
Classified as hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC).
Poison Schedule: Schedule 5

Poisons Schedule S5

National and or International Regulatory Information New Zealand:
Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
Group Standard:
Organic Peroxides, Corrosive Group Standard 2006
HSNO Approval Number: HSR002630

Hazard Category Harmful, Corrosive, Oxidising

AICS (Australia) All components in this product are listed on AICS (Australian Inventory of Chemical Substances).

16. OTHER INFORMATION

Date of preparation or last revision of MSDS MSDS created: January 2007.

Contact Person/Point For specialist advice in emergencies: Australia 1800 022 037;
New Zealand 0800 154 666.

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Nuplex Industries (Aust) Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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