

MATERIAL SAFETY DATA SHEET FAST CURING AGENT 2

1- IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product name: FAST CURING AGENT 2
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2- COMPOSITION/INFORMATION ON INGREDIENTS

| Name | EC No. | CAS-No | Content | Classification |
|---------------------------|-----------|------------|---------|--|
| POLYOXYPROPYLENEAMINE | | 9046-10-0 | 10-30% | Xn; R21/22.C; R34 |
| ISOPHORONEDIAMINE | 220-666-8 | 2855-13-2 | 10-30% | C; R34 Xn; R21/22; R43; R52/53 |
| PHENOL | 203-632-7 | 108-95-2 | 1-5% | Muta. Cat. 3; R68-T; R23/24/25 C; R34-Xn; R48; R20/21/22 |
| BENZENE-1,3-DIMETHANAMINE | | 1477-55-00 | 1-5% | Xn ; R20/22.C ; R35 ; R43 ; R52/53 |
| P.TERT. BUTYLPHENOL | | 98-54-4 | 1-5% | Xi; R36/37/38.N; R51/53; R42/43 |
| OCTABENZONE | | 1843-05-6 | <1% | R43; R52/53 |
| ISO-BUTANOL | 201-148-0 | 78-83-1 | <1% | R10 Xi; R37/38; R41 R67 |

The Full Text for all R-Phrases are Displayed in Section 16

3- HAZARDS IDENTIFICATION

Harmful by inhalation, in contact with skin and if swallowed. Causes burns. May cause sensitisation by inhalation and skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of irreversible effects.

CLASSIFICATION Xn; R20/21/22. Mut3 ; R68 ; R42/43. C ; R34. R52/53.

4- FIRST-AID MEASURES

INHALATION

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

INGESTION

Do not induce vomiting. Immediately rinse mouth and drink plenty of water (200-300 ml). Get medical attention.

SKIN CONTACT

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.

EYE CONTACT



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Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

5- FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Carbon dioxide (CO₂). Dry chemicals, sand, dolomite etc. Foam. DO NOT use water if avoidable.

SPECIAL FIRE FIGHTING PROCEDURES

Move container from fire area if it can be done without risk. Water spray should be used to cool containers. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

SPECIFIC HAZARDS

In case of fire, toxic and corrosive gases may be formed. Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂). Oxides of: Nitrogen

PROTECTIVE MEASURES IN FIRE

Use protective equipment appropriate for surrounding materials. Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6- ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Use protective gloves, goggles and suitable protective clothing. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. In case of spills, beware of slippery floors and surfaces.

ENVIRONMENTAL PRECAUTIONS

Avoid release to the environment. Do not discharge into drains, water courses or onto the ground. Contain spillages with sand, earth or any suitable adsorbent material. The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.

SPILL CLEAN UP METHODS

Wear necessary protective equipment. Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Runoff or release to sewer, waterway or ground is forbidden. Flush area clean with lots of water. Be aware of potential for surfaces to become slippery.

7- HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Do not eat, drink or smoke when using the product. Avoid inhalation of vapours.

STORAGE PRECAUTIONS

Store in tightly closed original container in a cool, dry well-ventilated place. Keep away from heat, sparks and open flame. Keep separate from food, feedstuffs, fertilisers and other sensitive material. Protect from light, including direct sunrays. Store separated from: Acids. Alkalis. Oxidising material.

STORAGE CLASS

Chemical storage.

8- EXPOSURE CONTROLS/PERSONAL PROTECTION

| Name | Std | LT – ppm | LT – mg/m ³ | ST – ppm | ST – mg/m ³ |
|-------------|-----|------------|------------------------|----------|------------------------|
| ISO-BUTANOL | WEL | 50ppm | 154 mg/m ³ | 75ppm | 231 mg/m ³ |
| PHENOL | WEL | 2 ppm (Sk) | | | |

PROTECTIVE EQUIPMENT

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PROCESS CONDITIONS

Provide eyewash station.

ENGINEERING MEASURES

All handling to take place in well-ventilated area.

RESPIRATORY EQUIPMENT

If ventilation is insufficient, suitable respiratory protection must be provided.

HAND PROTECTION

Use protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

Wear splash-proof eye goggles to prevent any possibility of eye contact.

HYGIENE MEASURES

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. When using do not eat, drink or smoke.

SKIN PROTECTION

Wear apron or protective clothing in case of splashes.

9- PHYSICAL AND CHEMICAL PROPERTIES

| | |
|------------------|----------------------------|
| APPEARANCE | Translucent liquid |
| COLOUR | Yellow |
| ODOUR | Amine |
| SOLUBILITY | Slightly soluble in water. |
| RELATIVE DENSITY | 1.01 25 |
| FLASH POINT (°C) | > 100 CC (Closed cup). |

10- STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition.

MATERIALS TO AVOID

Strong acids. Strong alkalies. Strong oxidising substances.

HAZARDOUS DECOMPOSITION PRODUCTS

In case of fire, toxic gases may be formed. Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂). Oxides of Nitrogen.

11- TOXICOLOGICAL INFORMATION

INHALATION

May cause sensitisation by inhalation.

INGESTION

Harmful if swallowed. Causes burns. May cause severe internal injuries.

SKIN CONTACT

May cause sensitisation by skin contact. Harmful in contact with skin. Causes burns. May cause skin irritation/eczema.

EYE CONTACT

May cause chemical eye burns.

ROUTE OF ENTRY

Skin and/or eye contact. Ingestion.

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TARGET ORGANS

Skin. Eyes. Gastro-intestinal tract.

MEDICAL SYMPTOMS

Upper respiratory irritation. Skin irritation. Skin contact may cause: Allergic rash. Eye contact may cause: Irritation of eyes and mucous membranes, including burning and tears. May cause discomfort if swallowed.

MEDICAL CONSIDERATIONS

Skin disorders and allergies. Persons with rash are directed to skin expert for examination of allergic eczema. Splash in eye requires examination by eye specialist.

12- ECOLOGICAL INFORMATION

ECOTOXICITY

The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

BIOACCUMULATION

No data available on bioaccumulation.

DEGRADABILITY

No data available.

13- DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Do not allow runoff to sewer, waterway or ground. Dispose of waste and residues in accordance with local authority requirements.

14- TRANSPORT INFORMATION



| | | | |
|----------------------|---|------------------|---------------|
| UK ROAD CLASS | 8 | | |
| PROPER SHIPPING NAME | CORROSIVE LIQUID, TOXIC, N.O.S. (POLYOXYPROPYLENEAMINE, PHENOL) | | |
| ROAD UN NO. | 2922 | UK ROAD PACK GR. | III |
| ADR CLASS NO. | 8 | HAZARD NO (ADR) | 86 |
| ADR CLASS | Class 8: Corrosive substances. | | |
| ADR PACK GROUP | III | ADR LABEL NO. | 8 |
| HAZCHEM CODE | 2X | CEPIC TEC(R) NO. | 80GCT1-II+III |
| RID CLASS NO. | 8 | RID PACK GROUP | III |
| UN NO. SEA | 2922 | IMDG CLASS | 8 |
| IMDG PAGE NO. | 8 & 6.1 | IMDG PACK GR. | III |
| EMS | F-A, S-B | MFAG | See Guide |
| MARINE POLLUTANT | No. | UN AIR NO. | 2922 |
| AIR CLASS | 8 | AIR SUBCLASS | 6.1 |
| ICAO CLASS | 8 | AIR PACK GR. | III |

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15- REGULATORY INFORMATION

LABELLING



| | | |
|----------------|---|--|
| CONTAINS | POLYOXYPROPYLENEAMINE ISOPHORONEDIAMINE PHENOL BENZENE-1,3-DIMETHANAMINE P.TERT BUTYLPHENOL | |
| RISK PHRASES | R20/21/22 R34 R42/43 R52/53 R68 | Harmful by inhalation, in contact with skin and if swallowed. Causes burns May cause sensitisation by inhalation and skin contact. Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment. Possible risk of irreversible effects. |
| SAFETY PHRASES | S23 S25 S26 S36/37/39 S45 S60 | Do not breathe vapours, spray. Avoid contact with eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible) This material and its container must be disposed of as hazardous waste. |

UK REGULATORY REFERENCES

Health and Safety at Work Act 1974.

EU DIRECTIVES

System of specific information relating to Dangerous Preparations. 2001/58/EEC. Dangerous Substance Directive 67/548/EEC as amended. Dangerous Preparations Directive 1999/45/EEC.

STATUTORY INSTRUMENTS

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (SI 1689)

APPROVED CODE OF PRACTICE

Control of Substances Hazardous to Health Regulations 2002.

GUIDANCE NOTES

Workplace Exposure Limits EH40.

**MATERIAL SAFETY DATA SHEET
FAST CURING AGENT 2****16- OTHER INFORMATION**

| | |
|------------------------------|---|
| REVISION DATE | 17.07.06 |
| REV. NO./REPL. SDS GENERATED | A |
| SDS NO. | 10551 |
| SAFETY DATA SHEET STATUS | Approved. |
| RISK PHRASES | R10 Flammable. |
| | R20/22 Harmful by inhalation and if swallowed. |
| | R21/22 Harmful in contact with skin and if swallowed. |
| | R23/24/25 Toxic by inhalation, in contact with skin and if swallowed. |
| | R34 Causes burns |
| | R35 Causes severe burns. |
| | R36/37/38 Irritating to the eyes, respiratory system and skin. |
| | R37/38 Irritating to respiratory system and skin. |
| | R41 Risk of serious damage to the eyes. |
| | R42/43 May cause sensitisation by inhalation and skin contact. |
| | R43 May cause sensitisation by skin contact. |
| | R48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. |
| | R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| | R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| | R67 Vapours may cause drowsiness and dizziness. |
| | R68 Possible risk of irreversible effects. |

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.