

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - Europe

1. Identification of the preparation and of the company

| Product code | : 26900101 | |
|--|--|--|
| Product name | : Catalyst | |
| Manufacturer/ Distributor | : SUN CHEMICAL SCREEN NORTON HILL MIDSOMER NORTON BATH SOMERSET BA3 4RT UNITED KINGDOM (44) 1689 894000 Emergency phone: (44) 1761 408646 | |
| e-mail address of person responsible for this SDS | : regulatory.affairs@sunchemical.com | |
| Product use | : Printing ink. Printing ink related material | |
| 2. Hazards identification | | |

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

| Classification | : | R43 R52/53 |
|----------------------------|---|--|
| Human health hazards | : | May cause sensitization by skin contact. |
| Environmental hazards | : | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| Additional warning phrases | : | Contains isocyanates. See information supplied by the manufacturer. This information is provided by the current Safety Data Sheet. |

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 | Classification | |
|--|---------------|------|-----------|-----------------------------------|---------|
| Aliphatic polyisocyanate | 28182-81-2 | > 70 | | R43 R52/53 | [1] |
| hexamethylene-di-isocyanate | 822-06-0 | < 1 | | T; R23 Xi; R36/37/38 R42/43 | [1] [2] |
| See section 16 for the full text of the R-phrases declared above | | | | | |

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] PBT-substance

[4] vPvB-substance

Composition/information on ingredients 3.

Occupational exposure limits, if available, are listed in section 8.

First aid measures 4.

| First aid measures | 5 |
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| General | In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice. |
| 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. |
| Skin contact | Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized 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. In case of accidental eye contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of the eyes. |
| Ingestion | : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting. |

5. **Fire-fighting measures**

| Extinguishing media | |
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| Suitable | : Use dry chemical, CO ₂ , water spray (fog) or foam. |
| Not suitable | : Do not use 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 drains or watercourses. |

Accidental release measures 6.

| Personal precautions: Exclude sources of ignition and ventilate the area. Avoid breathing vapor 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. | | |
|--|----------------------|---|
| 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 | Personal precautions | |
| | Spill | 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 |

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

| 7. Handling and | storage |
|-----------------------------|--|
| | 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. |
| Storage | : Store between the following temperatures: 5 - 35°C |
| | Store in accordance with local regulations. Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. Keep away from: oxidizing agents, strong alkalis, strong acids. No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not empty into drains. |
| 8. Exposure cont | trols/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 vapors below the OEL, suitable respiratory protection must be worn. |
| Ingredient name | Occupational exposure limits |
| hexamethylene-di-isocyanate | ACGIH TLV (United States, 1/2008). TWA: 0.03 mg/m ³ 8 hour(s). |

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

TWA: 0.01 ppm 8 hour(s).

Personal protective equipment

| Respiratory system | : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. |
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| Skin and body | : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Hands | |

Gloves : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

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

: Use safety eyewear designed to protect against splash of liquids.

Environmental exposure controls

Do not allow to enter drains or watercourses.

9. Physical and chemical properties

| Physical state | : | Liquid. |
|----------------|---|---------|
| Color | : | White. |
| Flash point | : | >100°C |

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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: oxidizing agents, strong alkalis, strong acids.

Materials to avoid : Reactive or incompatible with the following materials: oxidizing agents, strong acids, strong alkalis.

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 vapor 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. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. 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.

Contains Aliphatic polyisocyanate, hexamethylene-di-isocyanate. May produce an allergic reaction.

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.

| Other adverse effects | : No known significant effects or critical hazards. |
|-----------------------|---|
| РВТ | : Not applicable. |
| vPvB | : Not applicable. |

13. Disposal considerations

Do not allow to enter drains or watercourses.

Dispose of according to all federal, state and local applicable regulations.

European waste catalogue : 08 03 12 (EWC)

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Refer to protective measures listed in sections 7 and 8.

Empty containers or liners may retain some product residues.

14. Transport information

This product is not regulated for carriage according to ADR/RID, IMDG, ICAO/IATA.

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 | : Irritant |
| Risk phrases | : R43- May cause sensitization by skin contact. R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| Safety phrases | : S24- Avoid contact with skin. S37- Wear suitable gloves. |
| Contains | : Aliphatic polyisocyanate |
| Additional warning phrases | : Contains isocyanates. See information supplied by the manufacturer. This information is provided by the current Safety Data Sheet. |
| 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. |
| EU - Substances of very high | <u>h concern - PBT</u> |
| List name Name on list | CAS # Conc. |

None of the components are listed.

 EU - Substances of very high concern - vPvB

 List name
 Name on list
 CAS #
 Conc.

None of the components are listed.

16. Other information

| CEPE Classification | : | 1 | | |
|---|---|---|--|--|
| Full text of R-phrases referred to in sections 2 and 3 - Europe | : | R23- Toxic by inhalation. R36/37/38- Irritating to eyes, respiratory system and skin. R43- May cause sensitization by skin contact. R42/43- May cause sensitization by inhalation and skin contact. R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. | | |
| Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - Europe | | | | |
| Date of revision | : | 9 March 2010 | | |
| Version | : | 2 | | |

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 fulfill 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.

Annex