

4. FIRST-AID MEASURES (see also "adverse effects" in box 2)

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| INHALATION (Breathing) | : Remove patient to fresh air, keep warm and at rest. Apply supportive measures if necessary and seek medical attention. |
| EYE CONTACT | : Rinse affected eye with clean running water, or eyewash solution, for at least 15 minutes holding eyelids well apart. Rinse entire surface and do not allow run-off to contaminate unaffected eye. Seek medical attention. |
| SKIN CONTACT | : Remove and wash contaminated clothing immediately. Wash affected area thoroughly with soap and water. If the patient feels unwell seek medical advice. |
| INGESTION (Swallowing) | : Do NOT induce vomiting. If unconscious place in the recovery position and apply supportive measures if necessary. If conscious give patient up to 1 pint of water to drink. Seek medical attention. |
| EMERGENCY EQUIPMENT SUGGESTED | : Appropriate first-aid equipment should be provided. For the UK this should be in accordance with the Health & Safety (First-Aid) Regulations 1981. See also the Approved Code of Practice "First-aid at Work". |
| NOTE TO DOCTOR | : For further information contact the National Poisons Information Service in the UK. |

5. FIRE-FIGHTING MEASURES

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| FIRE EXTINGUISHER – TYPES | : Use dry powder, carbon dioxide, water-foam or water-fog. |
| SPECIAL FIRE-FIGHTING PROCEDURES | : Wear suitable personal protective equipment. |
| SPECIAL EXPOSURE HAZARDS | : May travel considerable distance to source of ignition and flash back. May explode when heated or when exposed to flames or sparks. |

6. ACCIDENTAL RELEASE MEASURES

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| PERSONAL PRECAUTIONS (see also box 8) | : Wear suitable personal protective equipment. |
| PROCEDURE (see also box 13) | : Shut off all sources of ignition. In the case of a large spillage advise emergency services of spillage and evacuate area. In the case of a small spillage absorb spill with an inert material such as sand, earth or sawdust. Transfer to a suitable container for subsequent disposal. DO NOT contaminate watercourses or ground. |

7. HANDLING AND STORAGE (see also box 8)

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| HANDLING | : Keep away from sources of ignition – No smoking. Avoid contact with skin and eyes. |
| STORAGE | : Keep container tightly closed, away from oxidisers, heat and flames. Store in original container in a cool, dry, ventilated place out of reach of children and away from food, drink and animal feeding stuffs. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (see also box 7)

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| OCCUPATIONAL EXPOSURE LIMITS | : OES for isopropanol is 999 mg/m ³ long-term exposure (8 hour Time Weighted Average) and 1250 mg/m ³ short-term exposure (15 minute reference period). OES for monopropylene glycol is 474 mg/m ³ 8hr TWA (vapour and particulates) and 10 mg/m ³ STEL (particulates). |
| ENGINEERING CONTROLS | : Where prevention of exposure is not reasonably practicable, adequate control of exposure should be achieved by engineering controls rather than the provision of personal protective equipment and clothing. More specific details cannot be given without carrying out a full risk assessment for each and every use scenario. Suitable and approved personal protective equipment and clothing may include the following item(s): |
| EYE PROTECTION | : Wear suitable eye protection such as goggles or a face shield. |
| HAND PROTECTION | : Wear suitable hand protection such as chemical-resistant gloves. |
| SKIN PROTECTION | : Wear suitable skin protection such as coveralls. |
| BREATHING PROTECTION | : Not required unless natural ventilation is inadequate, then wear suitable respiratory equipment. |
| ENVIRONMENTAL EXPOSURE CONTROLS | : Product should be used in accordance with instructions given and any spillage should be dealt with as a priority in order that contamination of watercourses or ground is avoided. |

9. PHYSICAL AND CHEMICAL PROPERTIES

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| APPEARANCE AND ODOUR | : A clear, blue liquid with an alcohol-type odour. | | |
| FLASH POINT | : 10°C. | SOLUBILITY IN WATER | : Miscible. |
| FLAMMABILITY | : Highly flammable. | SOLUBILITY IN FAT | : Not determined. |
| AUTOFLAMMABILITY | : For isopropanol 398°C. | PARTITION COEFFICIENT | : Not applicable. |
| VAPOUR PRESSURE | : For isopropanol 4.16kPa at 20°C. | BOILING POINT/RANGE | : For isopropanol ca. 82°C. |
| SPECIFIC GRAVITY | : 0.8 at 20°C. | MELTING POINT/RANGE | : For isopropanol -88°C. |
| OXIDISING PROPERTIES | : None known. | pH | : Not applicable. |
| EXPLOSIVE PROPERTIES | : May explode when heated or when exposed to flames or sparks. | VAPOUR DENSITY | : No data available. |
| VISCOSITY | : No data available. | EVAPORATION RATE | : No data available. |
| OTHER DATA | : None known. | | |

10. STABILITY AND REACTIVITY

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| CONDITIONS TO AVOID | : Avoid extremes of temperature, e.g. below 0°C and above 40°C. |
| MATERIALS TO AVOID | : None known. |
| HAZARDOUS BREAKDOWN PRODUCTS | : None known. |

11. TOXICOLOGICAL INFORMATION (see also box 2)

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| ACUTE TOXICITY | Oral | : LD ₅₀ of isopropanol is 5840mg/kg (oral rat) |
| | Inhalation | : Isopropanol gas or vapour is harmful on prolonged exposure or in high concentration. Inhalation of vapours may cause drowsiness and dizziness. |
| | Dermal | : Isopropanol is toxic through skin adsorption. |
| CORROSIVITY / IRRITATION | Skin | : Prolonged or repeated skin contact may cause defatting resulting in dermatitis and secondary infections. |
| | Eyes | : Irritating to eyes. |
| | Respiratory tract | : No data available. |
| SENSITISATION | Skin | : Contains no known skin sensitisers. |
| | Respiratory | : Contains no known respiratory sensitisers. |
| REPEATED-DOSE TOXICITY | | : Product does not contain any components known to have any effects relating to repeated-dose toxicity. |
| MUTAGENICITY | | : Product does not contain any components known to have a mutagenic effect. |
| CARCINOGENICITY | | : Product does not contain any components known to have a carcinogenic effect. |
| REPRODUCTIVE TOXICITY | Fertility | : Product does not contain any components known to be toxic to the reproductive system, and having effects on fertility. |
| | Developmental | : Product does not contain any components known to be toxic to the reproductive system, and having effects on development. |
| OTHER INFORMATION | | : No specific antidotes known. |

12. ECOLOGICAL INFORMATION

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| GENERAL INFORMATION | : The full ecotoxicological profile of this product has not been evaluated. Do not contaminate the environment. |
| ECOTOXICITY DATA | : No data available on the formulated product. Isopropanol : LC ₅₀ fathead minnow: 9600 mg/l LC ₅₀ 24 hr <i>Daphnia</i> > 1000 mg |
| MOBILITY (of appropriate constituents) | : Isopropanol is a volatile component and will partition to the air phase. |
| PERSISTENCE AND DEGRADABILITY (of appropriate constituents) | : Isopropanol : BOD ₂₀ > 8% ThOD |
| BIOACCUMULATIVE POTENTIAL (of appropriate constituents) | : Isopropanol is not expected to bioaccumulate. Predicted BCF = 1 |
| ENVIRONMENTAL CONSIDERATIONS | : DO NOT contaminate watercourses or ground with large quantities of undiluted product. This product does not contain any substances that are classified as dangerous to the environment. Thus, when supplied, used and disposed of as directed this product is not expected to present a danger to the environment. |
| OTHER ADVERSE EFFECTS | : None known |

13. DISPOSAL CONSIDERATIONS

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| DISPOSAL OF WASTE | : Waste should be disposed of in accordance with local, State or National requirements. |
| DISPOSAL OF CONTAINERS | : Empty containers should be disposed of in accordance with local, State or National requirements. |
| UK SPECIAL WASTE REGULATIONS, 1996 | : <u>Hazard Code</u> : H3-A - Highly flammable, H4 - Irritant <u>Components making the waste special and their concentrations</u> : Isopropanol > 50 ≤ 100 %w/w |
| NOTE FOR DISPOSAL | : Disposal should be in accordance with local, State or National requirements. For further advice about disposal, in the UK, contact the local office of the Environment Agency (England and Wales) or Scottish Environment Protection Agency. Local rate from anywhere in the UK: 0845 9333111. |

14. TRANSPORT INFORMATION (International unless otherwise indicated)

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| <u>UN NUMBER</u> : UN1993 | <u>UK HAZCHEM EAC</u> : 3YE | <u>ADR HIN</u> : 33 |
| <u>UK CDGRoad Transport Category</u> : 2 | <u>Tremcard Reference No.</u> : CEFIC TEC (R) - 30G30 | <u>IMDG EMS</u> : 3-07 |
| <u>UK CDGCPL2 CARRIAGE</u> : | | |
| CLASS : | 3 | |
| PROPER SHIPPING NAME : | Flammable liquid N.O.S. (contains isopropanol) | |
| PACKING GROUP : | II | |
| LIMITED QUANTITY EXEMPTIONS : | Maximum quantity per inner receptacle is 1 litre. Maximum quantity per outer package is 30 kg. | |
| SPECIAL REQUIREMENTS : | None | |
| LABELS : | Flammable liquid unless carried under Limited Quantity Exemptions. | |
| <u>IMDG 2000 (SEA) CARRIAGE</u> : | | |
| CLASS : | 3 | |
| PROPER SHIPPING NAME : | Flammable liquid N.O.S. (contains isopropanol) | |
| PACKING GROUP : | II | |
| LIMITED QUANTITY EXEMPTIONS : | Maximum quantity per inner receptacle is 1 litre. Maximum quantity per outer package is 30 kg. Combination packs only. | |
| SPECIAL REQUIREMENTS : | None | |
| LABELS : | Flammable liquid unless carried under Limited Quantity Exemptions. | |
| <u>ADR 2001 (ROAD) CARRIAGE</u> : | | |
| CLASS : | 3 | |
| PROPER SHIPPING NAME : | Flammable liquid N.O.S. (contains isopropanol) | |
| PACKING GROUP : | II | |
| LIMITED QUANTITY EXEMPTIONS : | Maximum quantity per inner receptacle is 3 litre. Maximum quantity per outer package is 12 litres. Combination packs only. | |
| SPECIAL REQUIREMENTS : | None | |
| LABELS : | Flammable liquid unless carried under Limited Quantity Exemptions. | |

15. REGULATORY INFORMATION

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| INDICATION OF DANGER | HEALTH AND SAFETY INFORMATION (see also box 2) |
| F - Highly flammable : | R11 : Highly flammable. |
| X_i - Irritant : | R36 : Irritating to the eyes. |
| | R67 : Vapours may cause drowsiness and dizziness |
| | S9 : Keep container in a well ventilated place. |
| | S16 : Keep away from sources of ignition – No smoking. |
| | S25 : Avoid contact with eyes. |
| | S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| | S35 : This material and its container must be disposed of in a safe way. |
| LEGISLATION : | This product is classified, in the UK, under The Chemicals (Hazard Information and Packaging for Supply) Regulations, 2002 (CHIP 3), as dangerous for supply. This product is classified, in the UK, under the Carriage of Dangerous Goods (Classification, Packaging and Labelling) and Use of Transportable Pressure Receptacles CDGCPL2 Regulations 1996, as dangerous for carriage. |

16. OTHER INFORMATION and indication of revisions

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| The information given on this Safety Data Sheet (SDS) does not constitute an assessment in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations 1999. |
| Changes have been made to the content of boxes 2, 3, 7, 8, 11, 12, 13, 14, 15 & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 01. |

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| Before using any product, ensure that you read and understand its label. The information contained in this safety data sheet is, to the best of our knowledge and belief, accurate and reliable at the time of publication. The information relates only to the specific material designated in this safety data sheet and may not be valid for such material if it is used in combination with any other material(s) or any other use than that specified herein. Rentokil Initial UK Ltd is not liable for the use of this product for any other purpose than that described in this safety data sheet. This does not affect your statutory rights. It is the user's responsibility to satisfy him/herself as to the suitability in completeness of such information for his/her own particular use. |
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Telephone: +44 (0) 1342 833022 Fax: +44 (0) 1342 326229 Web: www.ri-research.com