

Material Safety Data Sheet - Super De-Icer

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

PRODUCT NAME: 400ml Super De-Icer

SUPPLIER: WD-40 Company Ltd.
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Kiln Farm
Milton Keynes
MK11 3LF
Tel: 01908 555400
Fax 01908 266900

2. COMPOSITION/INFORMATION ON INGREDIENTS

| NAME | | | CONTENT |
|------------------------|--------------------|----------------------------------|---------|
| CAS No.: | EINECS Nr.: | CLASSIFICATION | |
| PROPAN-2-OL 67-63-0 | 200-661-7 | Xi ,F R-11, 36, 67 | 30-60 % |
| METHANOL 67-56-1 | 200-659-6 | T ,F R-11, 23/24/25, 39/23/24/25 | 1-5 % |
| BUTANE 106-97-8 | 203-448-7 | F+ R-12 | 1-5 % |
| PROPANE 74-98-6 | 200-827-9 | F+ R-12 | 1-5 % |
| ETHANEDIOL 107-21-1 | 203-473-3 | Xn R-22 | 5-10 % |

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

3. HAZARDS IDENTIFICATION

Extremely flammable. Irritating to eyes. Vapours may cause drowsiness and dizziness.

4. FIRST AID MEASURES

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

INHALATION: Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering 100% oxygen. Keep the affected person warm and at rest. Get prompt medical attention.

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| INGESTION: | DO NOT INDUCE VOMITING! Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort continues. |
| SKIN: | Wash the skin immediately with soap and water. Get medical attention if any discomfort continues. |
| EYES: | Make sure to remove any contact lenses from the eyes before rinsing. 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

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| EXTINGUISHING MEDIA: | Use: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist. |
| SPECIAL FIRE FIGHTING PROCEDURES: | Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapours. |
| UNUSUAL FIRE & EXPLOSION HAZARDS: | Aerosol cans may explode in fires. |

6. ACCIDENTAL RELEASE MEASURES

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| SPILL CLEANUP METHODS: | Wear necessary protective equipment. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Let evaporate. Keep out of confined spaces because of explosion risk. If leakage cannot be stopped, evacuate area. |
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7. HANDLING AND STORAGE

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| USAGE PRECAUTIONS: | Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. |
| STORAGE PRECAUTIONS: | Aerosol cans: Must not be exposed for direct sunlight or temperatures above 50°C. |

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

| INGREDIENT NAME: | CAS No.: | STD | LT EXP 8 Hrs | ST EXP 15 Min |
|-------------------------|-----------------|------------|---------------------------|----------------------------|
| ETHANEDIOL | 107-21-1 | OES | 52 mg/m ³ (Sk) | 104 mg/m ³ (Sk) |
| PROPAN-2-OL | 67-63-0 | OES | 400 ppm | 500 ppm |
| METHANOL | 67-56-1 | OES | 200 ppm(Sk) | 250 ppm(Sk) |
| BUTANE | 106-97-8 | OES | 600 ppm | 750 ppm |
| PROPANE | 74-98-6 | | Asphyxiating | Asphyxiating |

INGREDIENT COMMENTS: OES = Occupational Exposure Standard. MEL = Maximum Exposure Limit.

PROTECTIVE EQUIPMENT:



VENTILATION: Provide adequate general and local exhaust ventilation.

RESPIRATORS: No specific recommendation made, but respiratory protection must be used if the general level exceeds the Occupational Exposure Level (OEL). Use chemical

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| | cartridge protection with appropriate cartridge. |
| PROTECTIVE GLOVES: | Use protective gloves. |
| EYE PROTECTION: | Use approved safety goggles or face shield. |
| OTHER PROTECTION: | Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. |
| HYGIENIC WORK PRACTICES: | DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. No eating or drinking while working with this material. |

9. PHYSICAL AND CHEMICAL PROPERTIES

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| APPEARANCE: | Aerosol. |
| COLOUR: | Colourless. |
| ODOUR/TASTE: | Characteristic. |
| SOLUBILITY DESCRIPTION: | Insoluble in water. |
| FLAMMABILITY LIMIT - LOWER(%): | 0.8 |
| FLAMMABILITY LIMIT - UPPER(%): | 12.0 |

10. STABILITY AND REACTIVITY

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| STABILITY: | Normally stable. |
| CONDITIONS TO AVOID: | Avoid heat, flames and other sources of ignition. Avoid contact with: Strong oxidising agents. Strong alkalis. Strong mineral acids. |
| HAZARDOUS DECOMP. PRODUCTS: | Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO ₂). |

11. TOXICOLOGICAL INFORMATION

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| INHALATION: | May cause irritation to the respiratory system. Solvent vapours are hazardous and may cause nausea, sickness and headaches. Prolonged inhalation of high concentrations may damage respiratory system. Irritating to respiratory system. |
| INGESTION: | May cause discomfort if swallowed. May cause stomach pain or vomiting. Gastrointestinal symptoms, including upset stomach. |
| SKIN: | Prolonged or repeated exposure may cause severe irritation. Acts as a defatting agent on skin. May cause cracking of skin, and eczema. May cause allergic contact eczema. May cause sensitisation by skin contact. Irritating to skin. |
| EYES: | Irritating to eyes. May cause chemical eye burns. |
| ROUTE OF ENTRY: | Inhalation. Skin and/or eye contact. |

12. ECOLOGICAL INFORMATION

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| ECOLOGICAL INFORMATION: | Dangerous for the environment if discharged into watercourses. |
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13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS: Empty containers must not be burned because of explosion hazard. Dispose of in accordance with Local Authority requirements.

14. TRANSPORT INFORMATION

LABEL FOR CONVEYANCE:



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| UN No. ROAD: | 1950 |
| UK ROAD TRANSPORT CLASS: | 2.1 |
| UK ROAD PACK GR.: | Not Applicable |
| ADR CLASS No.: | 2 |
| ADR CLASS: | Class 2: Gases; Compressed, liquefied or dissolved under pressure. |
| ADR PACK GR. | Not Applicable |
| ADR LABEL No.: | 2.1 |
| CEFIC TEC(R) No.: | 20G53 |
| PROPER SHIPPING NAME I: | AEROSOLS |
| RID CLASS No.: | 2 |
| RID PACK GR. | Not Applicable |
| UN No. SEA: | 1950 |
| IMDG CLASS: | 2.1 |
| IMDG PACK GR.: | Not Applicable |
| EmS No.: | 2-13 |
| MFAG TABLE No.: | See Guide |
| MARINE POLLUTANT: | No. |
| UN No., AIR: | 1950 |
| ICAO CLASS: | 2.1 |
| AIR PACK GR.: | Not Applicable |

15. REGULATORY INFORMATION

LABEL FOR SUPPLY:



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| RISK PHRASES: | R-12 Extremely flammable. R-36 Irritating to eyes. R-67 Vapours may cause drowsiness and dizziness. |
| SAFETY PHRASES: | S-16 Keep away from sources of ignition - No Smoking. S-2 Keep out of the reach of children. S-23C Do not breathe vapour/spray S-25 Avoid contact with eyes. S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S-51 Use only in well-ventilated areas. |
| UK REGULATORY REFERENCES: | The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. The Control of Substances Hazardous to Health Regulations 2002. |
| STATUTORY INSTRUMENTS: | The Control of Substances Hazardous to Health Regulations 2002. The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. |
| APPROVED CODE OF PRACTICE: | Classification and Labelling of Substances and Preparations Dangerous for Supply. |
| GUIDANCE NOTES: | Occupational Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG(108). |

16. OTHER INFORMATION

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| PRINTING DATE: | 2003-10-22 |
| R-PHRASES (Full Text): | R-22 Harmful if swallowed. R-11 Highly flammable. R-36 Irritating to eyes. R-67 Vapours may cause drowsiness and dizziness. R-23/24/25 Toxic by inhalation, in contact with skin and if swallowed. R-39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. R-12 Extremely flammable. |