



# SAFETY DATA SHEET

## CHLORAL HYDRATE

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### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY:

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**PRODUCT NAME:** CHLORAL HYDRATE  
**CHEMICAL NAME 2:** 2,2,2-trichloroethane-1,1-diol  
**PART No.:** RM070  
**SUPPLIER:** J M Loveridge plc  
Southbrook Road, Southampton  
Hampshire  
SO15 1BH  
Tel: 023 8022 2008  
Fax: 023 8022 2117

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS:

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**EU INDEX No.:** 605-014-00-6  
**EEC (EINECS) No.** 206-117-5  
**CAS No.:** 302-17-0

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### 3. HAZARDS IDENTIFICATION:

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Toxic if swallowed. Irritating to eyes and skin.

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### 4. FIRST AID MEASURES:

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**GENERAL:** IN ALL CASES OF DOUBT OR WHEN SYMPTOMS PERSIST, ALWAYS SEEK MEDICAL ATTENTION

**INHALATION:** Move affected person to fresh air. If recovery not rapid, seek medical attention. If breathing stops, provide artificial respiration. Keep affected person warm and at rest.

**INGESTION:** Only if the person is fully conscious try to induce vomiting. Ensure that vomit can freely drain, keep patient at rest and obtain medical attention immediately. Show this SDS, label or packaging.

**SKIN:** Remove contaminated clothing. Wash affected area with plenty of soap and water. If irritation persists, seek medical attention. Launder clothing before re-use.

**EYES:** Rinse immediately with plenty of water for at least 5 minutes while lifting the eye lids. Seek medical attention. Continue to rinse.

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## 5. FIRE FIGHTING MEASURES:

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<b>EXTINGUISHING MEDIA:</b>	Use extinguishing media suitable against surrounding fire or the cause of fire.
<b>SPECIAL FIRE FIGHTING PROCEDURES:</b>	Take measures to retain water used for extinguishing. Do not release contaminated water into drains, soil and surface water. Dispose of contaminated water and soil according to local regulations.
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>	Thermal decomposition may release noxious, corrosive or toxic vapours. - hydrogen chloride.
<b>PROTECTIVE MEASURES IN FIRE:</b>	Fire fighters should wear self-contained breathing apparatus.

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## 6. ACCIDENTAL RELEASE MEASURES:

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<b>PERSONAL PRECAUTION IN SPILL:</b>	Avoid direct contact with skin, eyes and clothing. Wear appropriate protective clothing. Avoid breathing dust.
<b>PRECAUTIONS TO PROTECT ENVIRONMENT:</b>	Prevent contamination of soil, drains and surface water.
<b>SPILL CLEANUP METHODS:</b>	Cover spillage with damp inert material, take-up or collect and place into a suitable closable labelled container for disposal. Wash the area clean with water and detergent, observing environmental requirements.

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## 7. HANDLING AND STORAGE:

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<b>USAGE PRECAUTIONS:</b>	<b>HANDLING</b> - Product should be used in accordance with good industrial principles for handling and storing of hazardous chemicals. Avoid breathing dust. Ensure good ventilation and local exhaust extraction in work place.
<b>STORAGE PRECAUTIONS:</b>	Store in a cool, dry, well ventilated place, in securely closed original container.
<b>STORAGE CRITERIA:</b>	Toxic storage.

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## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION:

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<b>INGREDIENT COMMENTS:</b>	No specific OES assigned, however for dusts of any kind, ensure LTEL (8-hour TWA ref. period) level does not exceed 10 mg.m <sup>3</sup> for total inhalable dust or 4 mg.m <sup>3</sup> for respirable dust (or) as recommended in current edition of EH40.
<b>VENTILATION:</b>	If unable to control dust emissions below recommended limits, an approved respiratory protection must be used at all times at least to (EN 149) FFP 2S level of protection.
<b>PROTECTIVE GLOVES:</b>	Use impervious gloves.
<b>EYE PROTECTION:</b>	Wear approved safety goggles.
<b>OTHER PROTECTION:</b>	Wear personal protective equipment appropriate to the quantity of material handled.
<b>HYGIENIC WORK PRACTICES:</b>	<b>SKIN PROTECTION</b> - apply barrier cream to hands and exposed skin. Regularly vacuum dust to minimise the potential of air-borne exposure.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES:

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<b>APPEARANCE:</b>	Colourless, transparent crystalline solid.		
<b>ODOUR/TASTE:</b>	Pungent, stinging.		
<b>DENSITY/SPECIFIC GRAVITY (g/ml):</b>	~ 1.91	<b>Temperature (°C):</b>	
<b>BULK DENSITY:</b>	1100 kg/m <sup>3</sup>		
<b>pH-VALUE, DILUTED SOLUTION:</b>	3.5 - 5.5	<b>Concentration % M:</b>	(10% w/w soln)
<b>DECOMPOSITION TEMP. (°C):</b>	97		

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## 10. STABILITY AND REACTIVITY:

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<b>STABILITY:</b>	Stable under normal conditions of use.
<b>CONDITIONS TO AVOID:</b>	Avoid heating above 97°C.
<b>MATERIALS TO AVOID:</b>	Alkalis, bases and oxidising agents.
<b>HAZARDOUS DECOMP. PRODUCTS:</b>	Thermal decomposition or burning may release hydrogen chloride, chloroform and chloral.

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## 11. TOXICOLOGICAL INFORMATION:

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	Acute toxicity. LD50. Oral. Rat. 479 mg/kg
	Acute toxicity. LD50. Skin. Rat. 3030 mg/kg
<b>TOXICOLOGICAL INFORMATION:</b>	Chronic toxicity - long term effects are tolerance and addiction, (similar to alcohol); sudden withdrawal causes delirium and cramps. Acute toxicity: humans - 4 to 30g (as nerve poison).
<b>HEALTH HAZARDS, GENERAL:</b>	Will cause irritation to eyes, skin, nasal passage and mucous membranes.
<b>INHALATION:</b>	Irritating to mucous membranes. Irritating to the respiratory system.
<b>OTHER HEALTH EFFECTS:</b>	Has been found to cause cancer in laboratory animals.
<b>MEDICAL SYMPTOMS:</b>	Acute symptoms may include: - respiratory slowdown, vomiting, weak and irregular heartbeat, enlarged pupils.

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## 12. ECOLOGICAL INFORMATION:

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<b>LC 50, 96 HRS, FISH mg/l:</b>	2000
<b>ECOLOGICAL INFORMATION:</b>	No specific information available, but material is expected to have adverse effect on the environment.

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### 13. DISPOSAL CONSIDERATIONS:

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**DISPOSAL METHODS:** This material and/or its container must be disposed of as hazardous waste according to Special Waste Regulations 1996 or according to local regulations, in compliance with Duty of Care Regulations and Special Waste Regulations.

**WASTE CLASS:** WASTE CODE: 0705\*\* HAZARDOUS PROPERTY: H5

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### 14. TRANSPORT INFORMATION:

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**LABEL FOR CONVEYANCE:**



**UN No. ROAD:** 2811

**UK ROAD PACK GR.:** II

**ADR CLASS No.:** 6.1

**ADR CLASS:** Division 6.1: Toxic substances.

**ADR ITEM No.:** 25°(b)

**HAZARD No. (ADR):** 60 Toxic or slightly toxic substance.

**ADR MARGINAL:** 2601

**HAZCHEM CODE:** 2XE

**PROPER SHIPPING NAME I:** TOXIC SOLID, ORGANIC NOS

**PROPER SHIPPING NAME II:** TECHNICAL NAME - (contains chloral hydrate)

**UN No. SEA:** UN 2811

**IMDG CLASS:** 6.1

**IMDG PAGE No.:** 6270-6

**IMDG PACK GR.:** III

**UN No., AIR:** UN-ID 2811

**AIR SUB CLASS:** 6.1

**AIR PACK GR.:** II

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### 15. REGULATORY INFORMATION:

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**LABEL FOR SUPPLY:**

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<b>RISK PHRASES:</b>	R-25 Toxic if swallowed. R-36/38 Irritating to eyes and skin.
<b>SAFETY PHRASES:</b>	S-1/2 Keep locked up and out of the reach of children. S-25 Avoid contact with eyes. S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
<b>UK REGULATORY REFERENCES:</b>	Classification, Packaging and Labelling Regulations 1984. Chemicals (Hazard Information & Packaging) Regulations 1993.

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## 16. OTHER INFORMATION:

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<b>INFORMATION SOURCES:</b>	This product has been classified in accordance with CHIP3 regulations.
<b>REVISION COMMENTS:</b>	Edition 01; Revised item(s):
<b>ISSUED BY:</b>	MK
<b>SDS No.:</b>	113
<b>DATE:</b>	12/07/02
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