SAFETY DATA SHEET
HYDROCHLORIC ACID

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

PRODUCT NAME:	HYDROCHLORIC ACID
PART No.:	RM122
SYNONYMS, TRADE NAMES:	SPIRIT OF SALTS; HYDROGEN CHLORIDE SOLUTION;
APPLICATIONS:	Scope of this safety data sheet covers acid concentration of equal to or greater than 25%.
SUPPLIER:	J M Loveridge plc Southbrook Road, Southampton Hampshire SO15 1BH Tel: 023 8022 2008 Fax: 023 8022 2117

2. COMPOSITION/INFORMATION ON INGREDIENTS:

EU INDEX No.:	017-002-01-X
EEC (EINECS) No.	231-595-7
CAS No.:	7647-01-1
COMPOSITION COMMENTS:	Contains HCl @ 32% w/w

3. HAZARDS IDENTIFICATION:

Causes burns. Irritating to respiratory system.

4. FIRST AID MEASURES:

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.
INGESTION:	DO NOT INDUCE VOMITING. In case of spontaneous vomiting, be sure that vomit can freely drain because of danger of suffocation. Only when conscious, rinse mouth with plenty of water and give plenty of water to drink - (approx 500ml). Keep patient at rest and obtain medical attention.
SKIN:	Remove contaminated clothing. Wash affected area with plenty of soap and water. Obtain 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.

5. FIRE FIGHTING MEASURES:

EXTINGUISHING MEDIA: Use extinguishing media suitable against surrounding fire or the cause of fire.

HAZARDOUS COMBUSTION PRODUCTS: Toxic or corrosive vapours may be released in fire situation.

PROTECTIVE MEASURES IN FIRE: Fire fighters should wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES:

PERSONAL PRECAUTION IN SPILL: Avoid direct contact with skin, eyes and clothing.
Do not breathe vapour or fumes. Wear appropriate protective clothing.

PRECAUTIONS TO PROTECT ENVIRONMENT: Prevent contamination of soil, drains and surface water.

SPILL CLEANUP METHODS: Small spillage: Dilute to waste with plenty of water.
Larger spill: Neutralise spillage with alkaline material (sodium bicarbonate or soda-ash). Take-up spillage with absorbent, inert material and place in a suitable and closable labelled container for recovery or disposal. Wash the area clean with water and detergent, observing environmental requirements.

7. HANDLING AND STORAGE:

USAGE PRECAUTIONS: HANDLING - Product should be used in accordance with good industrial principles for handling and storing of hazardous chemicals.
Avoid vapour inhalation, skin and eye contact.

STORAGE PRECAUTIONS: Store in a cool, dry, well ventilated place, in securely closed original container.

STORAGE CRITERIA: Corrosive storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION:

INGREDIENT NAME:	CAS No.:	STD	LT EXP 8 Hrs	ST EXP 15 Min
HYDROCHLORIC ACID	7647-01-1	OES	1 ppm	5 ppm

INGREDIENT COMMENTS: Refer to the current edition of HSE Guidance Note EH 40/200* for occupational exposure limits; as Hydrogen chloride (gas and aerosol mist) and not as hydrochloric acid

VENTILATION: Work in a fume cupboard or use local exhaust ventilation. Respiratory protection required in insufficiently ventilated woking areas.

RESPIRATORS: For short periods of work, a suitable RPE fitted with a combination E1 filter cartridge is recommended.

PROTECTIVE GLOVES: Use impervious gloves.

EYE PROTECTION: Where the potential for eye contact exists, splash-proof goggles or face shield must be worn.

OTHER PROTECTION: Wear protective clothing and closed footwear.

Wear personal protective equipment appropriate to the quantity of material handled.

HYGIENIC WORK PRACTICES: SKIN PROTECTION - apply barrier cream to hands and exposed skin.
Promptly remove contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE: Liquid. Fuming.

COLOUR: Colourless to pale yellow.

ODOUR/TASTE: Pungent. Suffocating.

DENSITY/SPECIFIC GRAVITY (g/ml): ~1.19 **Temperature (°C):** 20

VAPOUR DENSITY (air=1): 1.27

pH-VALUE, DILUTED SOLUTION: 1 **Concentration % M:**

SOLUBILITY DESCRIPTION: Soluble in water. Miscible with water in all proportions.

ODOUR THRESHOLD, LOWER: 5

10. STABILITY AND REACTIVITY:

STABILITY: Stable under normal conditions of use.

CONDITIONS TO AVOID: Store away from reactive materials.

MATERIALS TO AVOID: Sulphuric acid. Strong bases and alkalis - vigorous exothermic reaction. Oxidising agents - reacts to liberate toxic chlorine gas. Can liberate harmful gases from certain chemical salts e.g. cyanides, nitrites, carbides, sulphites.

HAZARDOUS DECOMP. PRODUCTS: Thermal decomposition may release noxious, toxic or corrosive gases or vapours.
CARE - will react with many metals to liberate highly flammable hydrogen gas.

11. TOXICOLOGICAL INFORMATION:

TOXIC DOSE - LD 50: 900 mg/kg (oral-rbt)

INHALATION: LC 50 - 5mg/l (inhalation-rat).
Inhalation of mist or vapour will cause irritation of the upper respiratory tract, high concentrations may cause damage to mucous membranes and lungs.

INGESTION: May cause burns to mucous membranes, throat and stomach.

SKIN: Liquid causes severe irritation and burns on prolonged contact.
Vapour causes severe irritation, may cause burns at high concentrations.

EYES: Vapour is irritant at low concentrations. Liquid causes severe burns.

OTHER HEALTH EFFECTS: Repeated exposure to low levels may cause erosion of teeth and ulceration of the nasal septum and gums.

ROUTE OF ENTRY: Inhalation.

MEDICAL SYMPTOMS: Irritation of eyes and mucous membranes. Burning sensation in mouth. Severe skin irritation.

12. ECOLOGICAL INFORMATION:

ECOLOGICAL INFORMATION:	Avoid release to the environment. Prevent contamination of soil, drains or surface water, use appropriate containment method to avoid environmental contamination.
BIO ACCUMULATION:	Not expected to bio-accumulate.
DEGRADABILITY:	Neutralised slowly by natural alkalinity.
ACUTE FISH TOXICITY:	Fatal to aquatic life due to pH shift. Toxic to aquatic forms - 280ppm in fresh water and 100ppm in salt water.

13. DISPOSAL CONSIDERATIONS:

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: H8

14. TRANSPORT INFORMATION:

UN No. ROAD:	1789
UK ROAD PACK GR.:	II
ADR CLASS No.:	8
ADR CLASS:	Class 8: Corrosive substances.
ADR ITEM No.:	5 °(b)
HAZARD No. (ADR):	80 Corrosive or slightly corrosive substance.
ADR MARGINAL:	2801
HAZCHEM CODE:	2R
PROPER SHIPPING NAME I:	HYDROCHLORIC ACID
UN No. SEA:	UN 1789
IMDG CLASS:	8
IMDG PAGE No.:	8174
IMDG PACK GR.:	II
UN No., AIR:	UN-ID 1789
ICAO CLASS:	8
AIR PACK GR.:	II

15. REGULATORY INFORMATION:

LABEL FOR SUPPLY:

RISK PHRASES:	R-34 Causes burns. R-37 Irritating to respiratory system.
SAFETY PHRASES:	S-1/2 Keep locked up and out of the reach of children. S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
UK REGULATORY REFERENCES:	Classification, Packaging and Labelling Regulations 1984. Chemicals (Hazard Information & Packaging) Regulations 1993.

16. OTHER INFORMATION:

INFORMATION SOURCES:	This product has been classified in accordance with CHIP3 regulations.
REVISION COMMENTS:	Edition 01; Revised item(s):
ISSUED BY:	MK
SDS No.:	233
DATE:	12/07/02
DISCLAIMER:	The foregoing data has been compiled for safety information only and does not form part of any selling specification. Information contained in this Data Sheet is to the best of JMLs knowledge correct at the time of publication. Customers should always satisfy themselves, that the product which they have selected is entirely suitable for their purpose under their conditions of use and in compliance with current regulations. For any further information, please contact the supplier.