



SAFETY DATA SHEET

ETHANOL

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

PRODUCT NAME: ETHANOL
CHEMICAL NAME 2: ETHYL ALCOHOL
PART No.: RM099
APPLICATIONS: The scope of this SDS is applicable to ethyl alcohol 90 - 100%.
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.: 603-002-00-5
EEC (EINECS) No.: 200-578-6
CAS No.: 64-17-5

3. HAZARDS IDENTIFICATION:

Highly flammable.

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.

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. If irritation persists, seek medical attention.

EYES: Rinse immediately with copious amounts of water. If irritation or discomfort persists, seek medical attention.

5. FIRE FIGHTING MEASURES:

EXTINGUISHING MEDIA:	Alcohol resistant foam. Carbon dioxide (CO ₂). Dry chemicals, sand, dolomite etc. Halon.
SPECIAL FIRE FIGHTING PROCEDURES:	Use gentle application of water spray to keep exposed containers cool or to dissipate vapour.
UNUSUAL FIRE & EXPLOSION HAZARDS:	May explode when heated or when exposed to flames or sparks. Vapour may travel considerable distance to source of ignition and flash back.
HAZARDOUS COMBUSTION PRODUCTS:	Burning will produce oxides of carbon.
PROTECTIVE MEASURES IN FIRE:	Fire fighters should wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES:

PERSONAL PRECAUTION IN SPILL:	Wear appropriate protective clothing. Eliminate all sources of ignition.
PRECAUTIONS TO PROTECT ENVIRONMENT:	Prevent contamination of soil, drains and surface water.
SPILL CLEANUP METHODS:	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. Absorb small quantities with paper towels or other inert material and allow to evaporate in safe place (fume hood/cupboard).

7. HANDLING AND STORAGE:

USAGE PRECAUTIONS:	HANDLING - Product should be used in accordance with good industrial principles for handling and storing of hazardous chemicals. Spillages will create a fire hazard. Avoid vapour formation and ignition sources. Avoid inhalation of vapours. Ensure good ventilation and local exhaust extraction in work place. (engineering controls must be to explosion/flameproof standard). Earth container and transfer equipment to eliminate accumulation of static charge.
STORAGE PRECAUTIONS:	Store in a cool, dry, well ventilated place, in securely closed original container. Flammable/combustible - Keep away from oxidising agents, heat and flames.
STORAGE CRITERIA:	Flammable liquid storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION:

INGREDIENT NAME:	CAS No.:	STD	LT EXP 8 Hrs	ST EXP 15 Min
ETHANOL	64-17-5	OES	1000 ppm	No std.

VENTILATION:	Provide adequate general and local exhaust ventilation. Work in fume cupboard.
RESPIRATORS:	For short periods of work, a suitable RPE fitted with a combination charcoal or organic vapour cartridge is recommended.
PROTECTIVE GLOVES:	Use impervious gloves made of butyl rubber or PVC.
EYE PROTECTION:	Approved chemical safety goggles or face protection.

OTHER PROTECTION:	Use engineering controls to reduce air contamination to permissible exposure level. Wear personal protective equipment appropriate to the quantity of material handled.
HYGIENIC WORK PRACTICES:	SKIN PROTECTION - apply barrier cream to hands and exposed skin.

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE:	Clear colourless liquid.		
ODOUR/TASTE:	Characteristic, alcoholic odour.		
BOILING POINT (°C, interval):	~ 78	Pressure:	
MELT/FREEZ. POINT (°C, interval):	~ -113		
DENSITY/SPECIFIC GRAVITY (g/ml):	~ 0.79	Temperature (°C):	20
VAPOUR DENSITY (air=1):	1.59		
VAPOUR PRESSURE:	5.81 kPa	Temperature (°C):	20
EVAPORATION RATE:	3.4	Reference:	BuAc=1
VOLATILE BY VOL. (%):	100		
SOLUBILITY DESCRIPTION:	Miscible with water. Soluble in: Organic solvents (most).		
FLASH POINT (°C):	~ 13	Method:	CC (Closed cup).
AUTO IGNITION TEMP. (°C):	~ 365		
FLAMMABILITY LIMIT - LOWER (%):	3.3		
FLAMMABILITY LIMIT - UPPER (%):	19		

10. STABILITY AND REACTIVITY:

STABILITY:	Stable under normal conditions of use.
CONDITIONS TO AVOID:	Avoid heat, flames and other sources of ignition. Avoid accumulation of static electricity.
MATERIALS TO AVOID:	Oxidising agents. Sulphuric acid, Nitric acid.
HAZARDOUS DECOMP. PRODUCTS:	Thermal decomposition or burning will release oxides of carbon.

11. TOXICOLOGICAL INFORMATION:

TOXIC DOSE - LD 50:	7060 mg/kg (oral rat)
HEALTH HAZARDS, GENERAL:	Intoxicating if inhaled or ingested.
INHALATION:	May cause transient irritation to the respiratory system. Exposure to high vapour concentration may cause central nervous system depression or systemic effects similar to those of ingestion.
INGESTION:	May cause nausea, vomiting, dizziness and depression of CNS. Aspiration during swallowing or vomiting may severely damage the lungs.
SKIN:	Repeated or prolonged contact may cause mild irritation and/or drying (defatting) of skin.

EYES:	May cause transient eye irritation or damage.
OTHER HEALTH EFFECTS:	Adverse effects on male reproductive system have been reported in laboratory animals on prolonged exposure. Inconsistent mutagenic activity has been reported.
ROUTE OF ENTRY:	Inhalation.

12. ECOLOGICAL INFORMATION:

Ecotoxicological data	LC50 24 hours fish (trout) 11400 mg/l
ECOLOGICAL INFORMATION:	Regarded as having low toxicity to aquatic organisms.
MOBILITY:	Water soluble, will partition to aqueous phase. Lost within short period through evaporation and dissolution. Poorly absorbed onto soils or sediments.
BIO ACCUMULATION:	Low bioaccumulation potential.
DEGRADABILITY:	Readily biodegradable. - BOD5 = 37.74% of ThOD; BOD20 = 75-84% of ThOD.

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: H3-A

14. TRANSPORT INFORMATION:

LABEL FOR CONVEYANCE:



UN No. ROAD:	1170
ADR CLASS No.:	3
ADR CLASS:	Class 3: Flammable liquids.
ADR ITEM No.:	3°(b)
HAZARD No. (ADR):	33 Highly flammable liquid (flash-point below 23°C).
ADR MARGINAL:	2301
ADR LABEL No.:	3

HAZCHEM CODE: 2YE
PROPER SHIPPING NAME I: ETHANOL
ROAD TRANSPORT NOTES: Flash point: 13°C
UN No. SEA: UN 1170
IMDG CLASS: 3.2
IMDG PAGE No.: 3219
IMDG PACK GR.: II
MARINE POLLUTANT: No.
UN No., AIR: UN-ID 1170
ICAO CLASS: 3
AIR PACK GR.: II

15. REGULATORY INFORMATION:

LABEL FOR SUPPLY:



RISK PHRASES: R-11 Highly flammable.
SAFETY PHRASES: S-7 Keep container tightly closed.
S-16 Keep away from sources of ignition - No Smoking.
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.: 181/183
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.
