

# PRODUCT DATA SHEET

(This booklet incorporates the Specification and M.S.D.S.)

## PRODUCT | MINERALISED METHYLATED SPIRITS

CAS NO. Mixture

TARIFF NO. 220720003

U.N NO. 3-2/1170

EINECS NO.

IMCO CLASS 3-2 HARMFUL (HIGHLY FLAMMABLE)

HAZARDS HARMFUL/HIGHLY FLAMMABLE

SPECIFICATION REFERENCE

MM622/629/4

DATE MAR 96

REFERENCE NO.

MMS 1

DATE MAR 96

PREVIOUS EDITION.

DATE

## PRODUCT SPECIFICATION

<b>Product Name</b>	Mineralised Methylated Spirits
<b>Alternative Name</b>	Ethyl Alcohol, Denatured Alcohol, Grain Alcohol, IMS, Industrial Methylated Spirits, Meths, Industrial Alcohol, MMS,
<b>Product Grade</b>	

## SALES SPECIFICATION

Appearance	Purple liquid
Sg @ 20°C	0.812 - 0.878
Water	6.5% max
Alcohols	92% min
Pyridine	0.5% vol
Naphtha	0.5% vol min
Methyl Violet	1.5 to 2.0 ppm

### Exclusion of Liability

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### Health and Safety

A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on the handling precautions and emergency procedures. This must be consulted fully before handling, storage and use.



## SAFETY DATA SHEET

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

PRODUCT: MINERALISED METHYLATED SPIRIT

COMPANY: TENNANTS, Hazelbottom Road, Cheetham, Manchester M8 0GR

Tel No. 0161 205 4454 Fax No. 0161 203 4298 Emergency Tel No. 01865 407333

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Formulae:

Chemical Family Name: Ethanol

CAS No.: Ethanol 64-17-5  
Methanol 67-56-1

EINECS No.:

Information on composition Ethanol 85-94% - Methanol 0-9%

## 3. HAZARDS IDENTIFICATION

Main Hazards	Highly flammable. Toxic by inhalation and if swallowed
Health Effects - Eyes	Liquid or mist may cause conjunctival irritation and transient corneal damage. Vapour may cause conjunctival irritation.
Health Effects - Skin	Material may cause irritation. Prolonged or repeated contact may produce defatting of the skin leading to irritation and dermatitis. Unlikely to be absorbed in harmful amounts.
Health Effects - Ingestion	Swallowing may have the following effects: central nervous system depression, nausea, vomiting, loss of coordination, temporary or permanent blindness, coma and death.
Health Effects - Inhalation	Exposure to vapour may have the following effects: headache. Exposure to vapour at concentrations of 1000ppm and above may have the following effects: <i>irritation of nose, throat and respiratory tract, central nervous system depression, systemic effects similar to those resulting from ingestion.</i>

## 4. FIRST AID MEASURES

First Aid - Eyes	Immediately flood the eye with plenty of water for at least 10 minutes, holding the eye open. Obtain medical attention if soreness or redness persists
First Aid - Skin	Wash skin thorough with soap and water. Remove contaminated clothing as washing proceeds. Obtain medical attention if irritation persists.
First Aid - Ingestion:	Never make an unconscious person vomit or drink fluids. If medical attention is not immediately available, try to induce vomiting by having affected person touch back of the throat with his finger or by giving him syrup of ipecac as directed on the package. Wash out mouth with water. Get medical attention immediately.
First Aid - Inhalation	Remove from exposure. Keep warm and at rest. Perform artificial respiration if breathing has stopped. Obtain prompt medical attention.



**5. FIRE FIGHTING MEASURES**

Extinguishing Media	Alcohol foam, carbon dioxide (CO <sub>2</sub> ), dry chemicals, sand, dolomite etc.
Special Fire Fighting Procedures	If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Keep run off water out of sewers and water sources. Dike for water control. Cool containers exposed to flames with water from the side until well after the fire is out. Move container from fire area if it can be done without risk. Withdraw immediately in case of rising sound from venting device or any discolouration of tanks due to fire. Use water spray to reduce vapours. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. If water pollution occurs, notify appropriate authorities.
Unusual Fire & Explosion Hazards	May explode in a fire. May develop highly toxic or corrosive fumes if heated. May form explosive or toxic mixtures with air. May explode when heated or when exposed to flames or sparks. May travel considerable distance to source of ignition and flash back. Vapour explosion and poison hazard indoors, outdoors and in sewers.
Hazardous Decomposition Products	Toxic gases/vapours/fumes of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ).

**6. ACCIDENTAL RELEASE MEASURES**

Personal Precautions:	Wear respiratory and/or liquid contact protection.
Spillages	Ventilate well, stop flow of gas or liquid if possible. Remove ignition sources. Do not allow chemical to enter confined spaces such as sewers, due to explosion risk. Sewers designed to preclude formation of explosive concentrations of vapour may be permitted. Absorb small quantities with paper towels and evaporate in safe place (fume hood). Allow sufficient time for vapours to completely clear the hood ducts, then burn the paper in a location away from combustible materials. Let evaporate. Keep out of confined spaces because of explosion risk. Provide ventilation and confine spill. Do not allow run off to sewer.

**7. HANDLING AND STORAGE**

Handling	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. Avoid acids, moisture and combustible materials. Read and follow manufacturer's recommendations. Wear full protective clothing for prolonged exposure and/or high concentrations. Do not use contact lenses.
Storage	Flammable/combustible. Keep away from oxidizers, heat and flames. May attack some plastics, rubber and coatings. Keep in cool, dry, ventilated storage and closed containers. Ground container and transfer equipment to eliminate static electric sparks.
Storage Criteria	Flammable liquid storage

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Occupational Exposure Limits	CAS No.	STD	LT EXP (8 hrs)	ST EXP (15 min)
Ethanol	64-17-5	OES	1000ppm	
Methanol	67-56-1	OES	200 ppm (Sk)	250 ppm (Sk)
Eye Protection	Wear splash proof goggles to prevent any possibility of eye contact. Contact lenses should not be worn			
Skin Protection	Protective gloves.			
Respiratory Protection	CCROVF, CCR with organic vapour respirator and full facepiece			
Ventilation	Provide adequate general and local exhaust ventilation. Work in fume cupboard			
Other Protection	Use engineering controls to reduce air contamination to permissible level. Provide eyewash, quick drench. Wear appropriate clothing to prevent any possibility of skin contact			

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State	Liquid
Colour	Clear Blue/Purple
Odour	Ethereal, vinous odour
Solubility	Miscible with water, alcohol, ether
Specific Gravity (water = 1)	0.812 - 0.818 @ 20°C
Molecular Weight (at wt)	46
Vapour Pressure (mmHg)	43.0 @ 20°C
Melting Point (°C)	-114
Boiling Range/Point (°C)	78 768 mmHg
Flash Point (°C)	12 (closed cup)
Auto-ignition temperature (°C)	423
Flammability Limit	Lower % 3.3 Upper % 19

**10. STABILITY AND REACTIVITY**

Stability	Avoid heat, sparks, flames, moisture
Hazardous Decomposition Products	Toxic gases/vapours/fumes of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> )



**11. TOXICOLOGICAL INFORMATION**

Toxic Dose	LD50: 5628 mg/kg (oral rat)
Health Warnings	Exposure: This chemical has good warning properties. Gas or vapour is harmful on prolonged exposure or in high concentration. Irritant of eyes and mucous membranes. Toxic through skin absorption (percutaneous). Narcotic effect. CNS depressant.
Medical Symptoms	Irritation of eyes and mucous membranes. Dilated pupils. Rhinitis (inflammation of the nasal mucous membranes). Upper respiratory irritation. General respiratory distress, unproductive cough. May cause suffocation. Skin irritation. Nausea, vomiting. Unconsciousness, possibly death. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Behavioural changes. Hypotension (low blood pressure).
Acute and Chronic Health Hazards	May cause chemical eye burns. Swallowing concentrated chemical may cause severe internal injury.
Carcinogenicity	IARC Int. Agency for Research Cancer

**12. ECOLOGICAL INFORMATION**

Not classified as Dangerous for the Environment (Aquatic). (Self Classification)	
Environmental Fate and Distribution	Liquid with high volatility, soluble in water, low potential for bioaccumulation, predicted to have high mobility in soil.
Persistence and Degradation	Evidence of photo degradation in air, substantially bio degradable in water, evidence of degradation in soil
Toxicity	Low toxicity to aquatic organisms.
Effect on Effluent Treatment	No evidence of inhibition to the aerobic treatment process at a conc (mg/l) of 39500.

**13. DISPOSAL CONSIDERATIONS**

Product Disposal	Incinerate in suitable combustion chamber. Absorb in vermiculite or dry sand, dispose in licensed special waste. Collect on absorbent material, place in cardboard kegs and incinerate. Confirm disposal procedures with environmental engineer and local regulations.
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**14. TRANSPORT INFORMATION**

ROAD	
UN No.	1170
Hazchem Code	2sE
CEPIC TEC(R) No.	32
ADR Class	3
ADR Item No.	3(b)
ADR Label No.	3
Label for Conveyance	Flammable liquid (Class 3) (red diamond with flame symbol)

AIR	
UN No.	1170
Air Transport Class No.	3
Air Packaging Group	II

SEA	
UN No.	1170
Sea Transport Class No.	3.2
IMDG Page No.	3100
Sea Packaging Group	II
IMCO Label	3

**15. REGULATORY INFORMATION**

Labelling Information	
Health	Harmful
Physico-Chemical Properties	Highly Flammable
Environment	Toxic
R phrases	R11: Highly flammable R23/25: Toxic by inhalation and if swallowed
S phrases	S2: Keep out of reach of children. S7: Keep container tightly closed. S16: Keep away from sources of ignition - No Smoking. S24: Avoid contact with skin. S45: in case of accident of if you feel unwell, seek medical advice immediately (show the label where possible)

**16. OTHER INFORMATION**