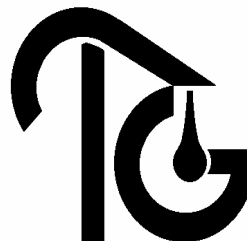


# TENNANTS DISTRIBUTION LIMITED

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## PRODUCT DATA SHEET

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

<b>PRODUCT</b>	<b>METHANOL</b>	
CAS NO.	67-56-1	
TARIFF NO.	290511000	
U.N NO.	3-2/1230	
EINECS NO.	200-659-6	
IMCO CLASS	3-2 3087 FLAMMABLE (TOXIC)	
HAZARDS	HIGHLY FLAMMABLE & TOXIC	
SPECIFICATION REFERENCE	ME/4	DATE OCT 06
REFERENCE NO.	ME/4	DATE OCT 06
PREVIOUS EDITION	ME 3	DATE NOV 01

<b>PRODUCT SPECIFICATION</b>	
Product Name	Methanol
Alternative Name	
Product Grade	
<b>SALES SPECIFICATION</b>	
Appearance	Clear, colourless, free from suspended matter and sediment
Colour-Co	Max. 5
Purity % W/W	99.85
Specific Gravity	0.791-0.793
Distillation range at 1013mbar (760mm Hg) pressure	1.0deg C to include 64.6deg C+/-0.1deg C
Water content	0.1% max
Acetone	Max. 30ppm
Chloride as Cl ion	Max. 0.5ppm
Acidity as Acetic Acid	Max. 30ppm
Ethanol	Max. 50ppm
Carbonisable Substances Pt-Co	Max. 30
Hydrocarbons	Passes test
Sulphur	Max. 0.5ppm
Residue on evaporation	Max. 10ppm
Permanganate time test	Minimum 60 minutes
Iron, total	Max. 0.1ppm
Non-volatile matter	Max. 8
Conforms to I.M.P.C.A. 2004 reference specification.	
<b>NOTES</b>	
<b>Exclusion of Liability</b>	
Information contained in this publication is accurate to the best of the knowledge and belief of Tennants.	
Any information or advice obtained from Tennants otherwise than by means of this publication and whether relating to Tennants materials or other materials, is also given in good faith. However, it remains at all times the responsibility of the customer to ensure that Tennants materials are suitable for the particular purpose intended.	
Tennants accepts no liability whatsoever (except as otherwise provided by law) arising out of the use of information supplied, the application, adaptation or processing of the products described herein, the use of other materials in lieu of Tennants materials or the use of Tennants materials in conjunction with such other materials.	
<b>Health and Safety</b>	
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.	

<b>SAFETY DATA SHEET</b>	
<b>1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY</b>	
Product:	METHANOL
COMPANY:	TENNANTS DISTRIBUTION LIMITED
	Hazelbottom Road                      Botany Way
	Cheetham                                      Purfleet
	Manchester                                  Essex
	M8 0GR                                      RM19 1SN
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	Fax No. 44(0)161 203 4298              Tel No. 44(0)1708 860074
	Emergency Tel No.                      01865 407333
<b>2. COMPOSITION/INFORMATION ON INGREDIENTS</b>	
Chemical Formulae:	
Chemical Family Name:	
CAS No.:	67-56-1
EINECS No.:	200-659-6
<b>3. HAZARDS IDENTIFICATION</b>	
Main Hazards	Methanol is flammable. It is toxic by inhalation, in contact with skin and if swallowed. It may cause very serious irreversible effects from a single high exposure by any of these routes
<b>4. FIRST AID MEASURES</b>	
First Aid - Eyes	Carefully remove contaminated clothing - launder before re-use Rinse immediately with plenty of water for at least 15 minutes, lifting the eyelid and avoiding contamination of unaffected eye. Seek medical advice
First Aid - Skin	Wash with plenty of water. If concerned, seek medical advice
First Aid - Ingestion:	Rinse out mouth thoroughly with water and give plenty of water to drink. Do not induce vomiting. Keep patient calm and seek medical advice
First Aid - Inhalation	Remove to fresh air; if not breathing, give artificial respiration and, if breathing is difficult, give oxygen. Keep patient calm and seek immediate medical attention
<b>5. FIRE FIGHTING MEASURES</b>	
Extinguishing Media	Water spray or mist, foam, carbon dioxide, alcohol foam or dry agents
Unsuitable Extinguishing Media	None
If Involved In A Fire	Alert fire brigade! Highly flammable. Will burn if involved in a fire and give off noxious fumes (e.g. carbon oxides). Vapour is slightly heavier than air and vapour may flash back a considerable distance to the fire. Wear breathing apparatus and protective clothing
<b>6. ACCIDENTAL RELEASE MEASURES</b>	
Personal Precautions	Observe any warning labels on the container (see Section 14 and 15). Take precautions to avoid exposure (see Section 8). Avoid naked flames and other sources of ignition
Environmental Precautions	Inform Emergency Services (e.g. police, fire brigade, local authority, water company, National Rivers Authority, as appropriate) if substance enters a water course
Cleaning Up Spillage	Contain any spilled material immediately with dry agent (e.g. sand, earth, vermiculite, etc.), and vacuum or shovel carefully into labelled containers for disposal (see Section 13). Use the TREMCARD system for substantial spillage in public places
<b>7. HANDLING AND STORAGE</b>	
Handling	Handle/weigh this product under conditions of good local exhaust ventilation to avoid breathing fumes or aerosol, swallowing and eye or skin contact. If this is not possible, use personal protective equipment (see Section 8). Avoid naked flames and other sources of ignition
Storage	Earth containers and store in a well ventilated, cool place and replace lid after use. Avoid naked flames and other sources of ignition
<b>8. EXPOSURE CONTROLS/PERSONAL PROTECTION</b>	

Respiratory	The following personal protective equipment is recommended when handling this product and spillages Full face respirator or air hood if ventilation is inadequate to reduce the atmospheric level to below the national occupational exposure limits for the component substances
Occupational Exposure Levels Methanol (mg/m <sup>3</sup> )	250/270 8h TWA, 310/350 15 min STEL UK (OES), Sweden, Finland, Ireland, Greece, US-ACGIH 260/270 8h TWA, EU, Denmark, Holland 370 8h TWA, 1350 30 min STEL (proposed) Germany 260 8h TWA, 520 30 min Switzerland 130 8h TWA Norway
Hand	PVC gloves
Eye	Face shield, or as respiratory above
Skin	Chemically resistant protective clothing with elasticated cuffs and closed neck
<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>	
Appearance	Colourless liquid
Odour	Pleasant
pH	Not determined
Boiling Point/Range	64°C approx.
Freezing Point/Range	-98°C approx.
Flash Point	12°C approx. (closed cup)
Auto Flammability	385°C approx.
Explosive Properties	Upper Limit In Air = 36% Lower Limit In Air = 6%
Oxidising Properties	Not an oxidiser
Vapour Pressure	100 mmHg @ 21°C
Relative Density	0.79 approx.
Solubility @ 20°C	Water: Miscible in all proportions Fat: Not determined; probably low Other Solvents: Soluble in ethanol, acetone, diethyl ether, benzene and chloroform
Partition Co-Effluent	0.77 Log Pow (Octanol/Water)
Other Data	1.11
<b>10. STABILITY AND REACTIVITY</b>	
Conditions To Avoid	Heat. Avoid naked flames and other sources of ignition (highly flammable)
Materials To Avoid	Strong oxidising agents, acids and acid chlorides
Hazardous Decomposition Products	Carbon oxides may be released on burning or heating to decomposition
<b>11. TOXICOLOGICAL INFORMATION</b>	
Acute Effects	
All Routes	Methanol can cause very serious irreversible effects by inhalation at >0.5 mg/l/4hour or in contact with skin at >3.5g/70kg man, or swallowing at 1.75g/70kg man
Eyes	Contact may cause irritation
Skin	Readily adsorbed through the skin; classified in EU as toxic in contact
Ingestion	Readily adsorbed by the gastro-intestinal tract: classified in EU as toxic if swallowed
Inhalation	Readily adsorbed by inhalation; classified in EU as toxic by inhalation
Chronic Effects	Oxidation by alcohol dehydrogenase with the formation of formaldehyde and formic acid takes place mainly in the liver and kidneys. The metabolites are thought to be responsible for the toxic effects Has produced teratogenic effects and foetotoxic effects in animal experiments, but is not thought to be carcinogenic
<b>12. ECOLOGICAL INFORMATION</b>	
Biodegradability	Biodegradable in soil and water and not bio-accumulative. Not acutely toxic to aquatic organisms
WGK Code	Methanol is classified by the German Water Pollution Commission

as WGK=1, mildly water polluting

<b>13. DISPOSAL CONSIDERATIONS</b>	
Users should acquaint themselves with local regulations. This product comes under European Waste Codes H6, H8 and H11, therefore, waste is considered as hazardous if it contains $\geq$ 1% product European Waste Catalogue Index No. 07 01 99, if not mixed with other waste Disposal is usually carried out by incineration by a licensed waste material processor: stack gases may need to be scrubbed (see Section 5 above)	
<b>14. TRANSPORT INFORMATION</b>	
Proper Shipping Name	Methanol
UN No	1230
Symbol	Flammable
Land-ADR/RID Class/Item No.	17 <sup>o</sup> B
Tremcard No.	36
HIN	336
EAC	2WE (tanks only)
Air-IATA/DGR Class/Packing Group	3 + 6.1/11
ERG	3P
Max. Net Quantity/Package	Passenger - 1 litre, (1 litre non UN packs) Cargo - 60 litres
Sea-IMDG/IMO	3.2 + 6.1/11 3251 3-06 306
<b>15. REGULATORY INFORMATION</b>	
EEC Classification	Highly Flammable and Toxic
Hazard symbol	F & T
R phrases	R11 Highly flammable R23/24/25 Toxic by inhalation, in contact with skin and if swallowed R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed
S phrases	S7 Keep container tightly closed S16 Keep away from sources of ignition - No smoking S36/37 Wear suitable protective clothing and gloves S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
<b>16. OTHER INFORMATION</b>	
The Specification has been revised. The Safety Data Sheets remain the same	
Revision Date: 14/10/06	