



SAFETY DATA SHEET

99.85%

METHANOL

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. PRODUCT IDENTIFIER

Product name: Methanol
Product No.: METYL
CAS-No.: 67-56-1
EC No.: 200-659-6
REACH No.: 01-2119433307-44
Synonym: Methyl alcohol, Methyl Hydrate, Methyl hydroxide, Carbinol, Hydroxymethane, Pyroligneous spirit, Wood alcohol, Wood naphtha, Wood spirit,
Chemical Formula: CH_3OH

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Recommended use: In the production of Biodiesel;
In Power/Fuel Cells in Caravans and Camper Homes;
As a Racing Fuel;
As a Fuel Additive;
In Production of Microscopy Stains;
In Manufacture of Formaldehyde;
As an Anti-freeze;
As a Denaturant for Alcohols.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

HD Chemicals LTD
UNIT 9 Scott Business Park
PL2 2PB Plymouth UK

Contact Person responsible for SDS: Mr Peter Konefal, e-mail: contact@hdchemicals.co.uk

SECTION 2: HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification 67/548/EEC: R11, R23/24/25, R39/23/24/25

Classification – EC 1272/2008: Flammable liquids; Category 2 (H225)
Acute toxicity; Category 3 (H301+H311+H331)

2.2. LABEL ELEMENTS



SIGNAL WORDS

Danger

RISK 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

HAZARD PHRASES

H225 Highly flammable liquid and vapour
H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled

PROTECTION PHRASES

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking
P260 Do not breathe dust/fume/gas/mist/vapours/spray



P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing
P307+P311	IF exposed: Call a POISON CENTER or doctor/physician
P330	Rinse mouth
P363	Wash contaminated clothing before reuse
P403+P253	Store in a well-ventilated place. Keep cool
P405	Store locked up
P501	Dispose of contents/container to comply with local, state and federal regulations

SAFETY PHRASES

S16	Keep away from sources of ignition - No smoking
S24	Avoid contact with skin
S33	Take precautionary measures against static discharges
S36/37	Wear suitable protective clothing and gloves
S38	In case of insufficient ventilation, wear suitable respiratory equipment
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S63	In case of accident by inhalation, remove casualty to fresh air and keep at rest

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

67/548/EEC/1999/45/EC

Composition information – main constituents

Substance name	Mol. Formula	REACH	Typical conc. (%w/w)	EINECS No.	CAS-No.	Classification
Methanol	CH ₃ OH	01-2119433307-44	99.85%	200-659-6	67-56-1	R11, R23/24/25, R39/23/24/25



EC 1272/2008

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Methanol	CH ₃ OH	01-2119433307-44	99.85%	200-659-6	67-56-1	H225, H301+H311+H331

SECTION 4: FIRST AID MEASURES**4.1. DESCRIPTION OF FIRST AID MEASURES**

First-aid measures general: Consult a physician when you feel unwell. Show this safety data sheet to the doctor in attendance.

Inhalation: Remove the person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.

Ingestion: DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. Rinse mouth and drink plenty of water. Seek medical attention if any discomfort continues.

Skin contact: Remove all contaminated clothes. Immediately flush skin with plenty of water for at least 15 minutes. Seek medical attention if irritation or symptoms persist.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention. Continue to rinse.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Inhalation: May cause irritation respiratory system. There may be a feeling of tightness in the chest with shortness of breath. Coughing.

Ingestion: There may be irritation of the throat. May cause headache, dizziness, tiredness, nausea and vomiting.

Skin contact: There may be irritation at the site of contact.

Eye contact: There may be irritation, redness and lacrimation.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically



SECTION 5: FIREFIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray, carbon dioxide (CO₂), dry chemical powder, alcohol-resistant foam.

Unsuitable extinguishing media: High volume water jet.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Flammable. Toxic. Risk of ignition. Vapours may form explosive mixtures with air. Vapours may travel to source of ignition and flash back. Containers may explode when heated. Thermal decomposition can lead to release of irritating and toxic gases and vapours. Hazardous combustion products carbon dioxide (CO₂) and carbon monoxide (CO).

5.3. ADVICE FOR FIRE-FIGHTERS

Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wear suitable protective equipment (splash goggles, protective suit, boots, gloves and self-contained breathing apparatus) to prevent any contamination of skin, eyes and personal clothing. Ensure adequate ventilation of the working area. Avoid contact with skin and eyes. Avoid breathing vapours, mist or gas. Avoid formation of dust. Keep unprotected persons away. Eliminate all ignition sources (no smoking, flares, sparks and flames in immediate area). Do not touch or walk through spilled material. Turn leaking containers leak-side up to prevent the escape of liquid. Stay upwind and keep out of low areas.

For personal protection see section 8.1.

6.2. ENVIRONMENTAL PRECAUTIONS

Avoid release to the environment. Do not allow to enter sewers/ surface or ground water. Do not allow to enter into soil/subsoil. Prevent further leakage or spillage if safe to do so. Use appropriate container to avoid environmental contamination. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Absorb into dry earth or sand. Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Clean contaminated surfaces with an excess of water. Do not use



equipment in clean-up procedure which may produce sparks. Wash clothing and equipment after handling. Avoid dust formation. Ensure adequate ventilation.

SECTION 7: HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

Handle in accordance with good industrial hygiene and safety practice. Avoid formation of dust. Do not inhale dust/smoke/mist. Ensure adequate ventilation of the working area. Wear personal protective equipment. Avoid contact with eyes and skin. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products. Keep away from sources of ignition. Smoking is forbidden. Avoid direct contact with the substance. Avoid the formation or spread of mists in the air. Use non-sparking tools.

For precautions see section 2.2.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep in a cool, dry, well ventilated area. Keep in original tightly closed containers. Keep away from open flames, hot surfaces and sources of ignition. Prevent the build up of electrostatic charge in the immediate area.

7.3. SPECIFIC END USE(S)

See section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS/EXPOSURE GUIDELINES

Occupational Exposure Limit Values (Methanol):

CAS NO	Exposure limit	Value	Name of Agent
67-56-1	TWA – 8 Hrs	266 mg/m ³	methanol
67-56-1	STEL – 15 Min	333 mg/m ³	methanol

Engineering controls: Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands before breaks and at the end of the working day. Keep away

from open flames, hot surfaces and sources of ignition. Prevent the build up of electrostatic charge in the immediate area.



EYE PROTECTION



FACE SHIELD



RESPIRATOR



PROTECTION WEAR



HAND PROTECTION

- Protective equipment:** Use protective tightly fitting safety goggle (European standard - EN 166), gloves (European standard - EN 374) and long sleeved clothing to prevent skin, body and eyes exposure.
- Respiratory equipment:** Respiratory protection not required but self-contained breathing apparatus must be available in case of emergency.
- Skin and body protection:** Wear appropriate protective gloves and clothing to prevent skin exposure. The glove material has to be impermeable and resistant to the product. Protective gloves should be replaced at first signs of wear. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. The following materials are suitable: rubber gloves.
- Eye/Face protection:** Wear appropriate tightly fitting protective eye glasses or chemical safety goggles as described by EN166 (EU Standard). Ensure eye bath is to hand.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Colour:	Colourless
Odour:	Characteristic odour, Alcohol-like
Initial boiling point (°C):	No data available
Melting point (°C):	-97.6°C



Freezing point:	No data available
Relative density:	0.792 g/cm ³
Specific gravity / density:	Not available
Vapour density:	Not available
Vapour pressure:	Not available
Flash point (°C):	Not available
Molecular mass:	32.04 g/mol
Auto-ignition temperature:	Not applicable
Oxidizing properties:	Not available
Decomposition temperature:	Not available
Molecular formula:	CH ₃ OH

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

Methanol is non-reactive under normal conditions of use, storage and transport.

10.2. CHEMICAL STABILITY

This product is stable under room temperature, normal conditions and under recommended usage and storage.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

May liberate toxic gases. See section 10.5

10.4. CONDITIONS TO AVOID

Keep away from open flames, hot surfaces and sources of ignition. Prevent the build up of electrostatic charge in the immediate area.

10.5. INCOMPATIBLE MATERIALS

May liberate toxic gases. Incompatible with strong oxidising agents, strong acids, strong bases, peroxides.

10.6. HAZARDOUS DECOMPOSITION

Flammable. Toxic. Risk of ignition. Vapours may form explosive mixtures with air. Vapours may travel to source of ignition and flash back. Containers may explode when heated. Thermal decomposition can



lead to release of irritating and toxic gases and vapours. Hazardous combustion products carbon dioxide (CO₂) and carbon monoxide (CO).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

TOXIC DOSE **LD50 Oral – Rat – > 1187–2769 mg/kg**
LD50 Dermal – Rabbit – 17100 mg/kg
LC50 Inhalation – Rat – 128.2 mg/l 4h

Inhalation: May causes irritation respiratory system. There may be a feeling of tightness in the chest with shortness of breath. Coughing.

Ingestion: There may be irritation of the throat. May cause headache, dizziness, tiredness, nausea and vomiting.

Skin contact: There may be irritation at the site of contact.

Eye contact: There may be irritation, redness and lacrimation.

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Aquatic Toxicity:

Toxicity to freshwater fish: LC50: 15400 mg/l, 96h (Lepomis macrochirus)
Toxicity to water flea: EC50: 18260 mg/l, 96h (Daphina magna)
Toxicity to algae: EC50: 22000 mg/l, 96h (Pseudokirchneriella subcapitata)

12.2. PERSISTENCE AND DEGRADABILITY

Readily biodegradable.

12.3. BIOACCUMULATIVE POTENTIAL

No bioaccumulation potential.

12.4. MOBILITY

Highly mobile in soils. May contaminate groundwater.



12.5. RESULTS OF PBT AND vPvB ASSESSMENT

This product is not identified as a PBT/vPvB substance.

12.6. OTHER ADVERSE EFFECTS

Negligible ecotoxicity.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal recommendations: Disposal of methanol should be in accordance with local and national legislation. Processing, use or contamination of this product may change the waste management options. Should not be released into the environment. Dispose of container and unused contents in accordance with applicable member state and local requirements. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Uncleaned packaging: Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

IMDG

UN number	1230
UN proper shipping name	Methanol
Transport hazard class(es)	3
Packing group	II

ADR/RID

UN number	1230
UN proper shipping name	Methanol
Transport hazard class(es)	3
Packing group	II

IATA

UN number	1230
UN proper shipping name	Methanol
Transport hazard class(es)	3
Packing group	II



SECTION 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2 CHEMICAL SAFETY ASSESSMENT

For this product a chemical safety assessment was not carried out.

SECTION 16: OTHER INFORMATION

General information

The information contained in this safety data sheet is provided in accordance with the requirements of the regulations. The product should not be used for purposes other than those shown in section 1 without first referring to the supplier and obtaining written handling instruction. As the specific conditions of use of the product are outside the suppliers control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.

Revision Comments

This information is provided in a revised format to that previously produced.

Revision Date: 01/10/2018

Revision: 01

Safety Data Sheet Status Approved.

Date printed 01/10/2018

Signature Initials P.K.

DISCLAIMER:

If this product is re-distributed and re-formulated for sale, details of its hazards and recommended methods for safe handling must be passed to customers. Customers are urged to ensure that the product is entirely suitable for their own purpose. It is the customer's responsibility to ensure that a suitable and sufficient assessment of the risks created by a work activity using this product is undertaken before this product is used.



NOTE:

The information contained in this Safety Data Sheet does not constitute the users own assessment of workplace risk as required by other Health & Safety Legislation (e.g. the Health and Safety at Work Act,1974;the control of Substances Hazardous to Health Regulations,1988). The data given here is based on current knowledge and experience. The purpose of this data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the product's properties.