

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

PRODUCT NAME METHANOL

PRODUCT CODE 61088x

| | | | |
|-----------------|--|-----------|----------------------|
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2. HAZARDS IDENTIFICATION

CLASSIFICATION ACCORDING TO REGULATION (EC) No 1272/2008 [EU-GHS/CLP]

| | |
|---|------|
| Flammable liquids (Category 2) | H225 |
| Acute toxicity, Inhalation (Category 3) | H331 |
| Acute toxicity, Dermal (Category 3) | H311 |
| Acute toxicity, Oral (Category 3) | H301 |
| Specific target organ toxicity - single exposure (Category 1) | H370 |

LABELLING ACCORDING TO REGULATION (EC) No 1272/2008 [EU-GHS/CLP]

DANGER



Hazard statement(s)

| | |
|------|------------------------------------|
| H225 | Highly Flammable liquid and vapour |
| H301 | Toxic if swallowed |
| H311 | Toxic in contact with skin |
| H331 | Toxic if inhaled |
| H370 | Causes damage to organs |

Precautionary statement(s)

| | |
|-------------|---|
| 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 |
| P311 | Call a POISON CENTER or doctor/physician |

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Name | EC # | CAS # | Content | Formula | Molar Mass |
|----------|-----------|---------|---------|--------------------|-------------|
| METHANOL | 200-659-6 | 67-56-1 | 100% | CH ₃ OH | 32.04 g/mol |

4. FIRST-AID MEASURES

INHALATION

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.

INGESTION

Do not induce vomiting. Never make an unconscious person vomit or drink fluids. Get medical attention immediately. Show the label or this document to the physician.

SKIN CONTACT

Remove contaminated clothes and rinse skin thoroughly with water. If symptoms occur seek medical attention.

EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eyelids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Use: Alcohol-resistant foam. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

UNUSUAL FIRE AND EXPLOSION HAZARDS

May travel considerable distance to source of ignition and flash back. May form explosive or toxic mixtures with air. Vapour explosion and poison hazard indoors, outdoors and in sewers. Forms harmful carbon oxides on combustion.

PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Wear protective clothing as described in Section 8 of this safety data sheet. Evacuate personnel from the affected area. Extinguish all ignition sources. Avoid sparks, flames, heat. Ventilate area.

ENVIRONMENTAL PRECAUTIONS

Do not allow spillage to enter watercourses, drains or sewers. Fire Brigade and Local authority must be informed if this happens as a potential explosive hazard may be created. Stop leak if possible without risk.

SPILL CLEAN-UP METHODS

Provide ventilation and confine spill. Do not allow runoff to sewer. Inform Authorities if large amounts are involved. Absorb with vermiculite, dry sand or earth – do NOT use sawdust or other combustible materials. Shovel up residue and collect for authorised disposal (see section 13). Flush area with plenty of water.

7. HANDLING & STORAGE

USAGE PRECAUTIONS

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Risk of vapour concentration on the floor and in low-lying areas. Static electricity and formation of sparks must be prevented.

STORAGE PRECAUTIONS

Flammable/combustible - Keep away from oxidisers, heat and flames. Store in tightly closed original container in a cool, dry well-ventilated place. Ground container and transfer equipment to eliminate static electric sparks. May attack some plastics, rubber and coatings.

STORAGE CLASS

Flammable liquid storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

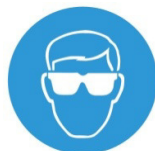
| Name | Std | 8h TWA | | STEL | |
|----------|------------|---------|-----------------------|---------|-----------------------|
| METHANOL | WEL (skin) | 200 ppm | 260 mg/m ³ | 250 ppm | 333 mg/m ³ |

WEL – Workplace Exposure Limit; 8h TWA – 8-hour Time-Weighted Average; STEL – Short-Term EL.

ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation. Provide explosion-proof ventilation for high concentrations.

PROTECTIVE EQUIPMENT



HAND PROTECTION

Use protective gloves made of: Butyl rubber (immersion protection) or Nitrile rubber (splash protection). The most suitable glove should be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

Wear approved, tight-fitting safety glasses where splashing is probable.

RESPIRATORY EQUIPMENT

Self-contained breathing apparatus where high vapour levels are likely.

OTHER PROTECTION

Provide eyewash station.

HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-------------------------------|--|
| APPEARANCE | Colourless Liquid |
| ODOUR | Pungent (alcohol) |
| (SOLUBILITY) / MISCIBLE WITH: | Water; Ethanol; Ether; Benzene; Organic solvents |
| MELTING POINT | ~ -97 °C |
| BOILING POINT | ~ 64 °C |
| FLASH POINT (CLOSED CUP) | ~ 10 °C |
| AUTO-IGNITION TEMP | 455 °C |
| SPECIFIC GRAVITY | 0.79 @ 20 °C |
| VAPOUR DENSITY | 1.11 |
| FLAMMABILITY LIMIT – UPPER | 36 % |
| FLAMMABILITY LIMIT – LOWER | 6.7 % |

10. STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Extremes of temperature, direct sunlight.

INCOMPATIBLE MATERIALS

Strong oxidizers, Acids, Reducing agents, Alkali metals.

Can react vigorously with chloroform in the presence of sodium and sodium hydroxide.

HAZARDOUS DECOMPOSITION PRODUCTS

During fire, toxic gases (CO, CO₂) are formed.

11. TOXICOLOGICAL INFORMATION

| | | | |
|-------------------|-------|-----------------|------------------|
| <u>TOXIC DOSE</u> | LD 50 | Oral, Rat | 5628 mg/kg |
| | LC 50 | Inhalation, Rat | 4 h – 64,000 ppm |
| | LC 50 | Inhalation, Rat | 4 h – 87.6 mg/L |
| | LD 50 | Dermal, Rabbit | 15,800 mg/kg |

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE

Causes damage to organs.

INHALATION

Toxic by inhalation. Toxic: danger of very serious irreversible effects through inhalation. High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting. Central nervous system depression.

INGESTION

Toxic if swallowed. Toxic: danger of serious damage to health by prolonged exposure if swallowed. May cause stomach pain or vomiting. Drowsiness, dizziness, disorientation, vertigo. Central nervous system depression.

SKIN CONTACT

Toxic in contact with skin. Toxic: danger of very serious irreversible effects in contact with skin.

EYE CONTACT

Irritation, burning, lachrymation, blurred vision after liquid splash.

SIGNS AND SYMPTOMS OF EXPOSURE

Methyl alcohol may be fatal or cause blindness if swallowed. Cannot be made non-poisonous. Effects due to ingestion may include: nausea, headache, vomiting, gastrointestinal disturbance, dizziness, weakness, confusion, drowsiness, unconsciousness. May cause convulsions.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Not regarded as dangerous for the environment. However, the product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Incinerate in suitable combustion chamber. Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION

| | UN # | Class | Packing | Proper shipping name |
|------------------|------|---------|---------|----------------------|
| <u>RID / ADR</u> | 1230 | 3 (6.1) | II | Methanol |
| <u>IATA</u> | 1230 | 3 (6.1) | II | Methanol |
| <u>IMDG</u> | 1230 | 3 (6.1) | II | Methanol |

SIGNAGE



ENVIRONMENTAL HAZARDS

RID / ADR No
IATA No
IMDG No

15. REGULATORY INFORMATION

STATUTORY INSTRUMENTS

This MSDS complies with regulation (EC) no. 1907/2006.
Workplace Exposure Limits EH40/2011.

16. OTHER INFORMATION

GENERAL INFORMATION

This safety data sheet covers all codes for this product.

REVISION INFORMATION

| | |
|-----------------------------|--------------------------|
| Revision No. | 5 |
| Revision Date | 07/2014 |
| Comments | CHIP regulations removed |
| Replaces Document Generated | 02/2012 |

HAZARD STATEMENTS IN FULL

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