

1. Identification


Product Code **1110514**

Product Name **METHANOL A.R.**

Molecular Formula **CH₃OH =32.04**

CAS Number **67-56-1**

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2. Composition

| Component | CAS No | EEC No | Conc w/w | Classification & Risk Phrases | Exp (See 8.1) |
|-----------|---------|-----------|----------|----------------------------------|---------------|
| Methanol | 67-56-1 | 200-659-6 | > 99.5% | F T : R11,R23/24/25,R39/23/24/25 | WEL |

3. Hazards Identification



Highly flammable. Toxic by inhalation, in contact with skin and if swallowed.
 Harmful: possible risk of irreversible effects through inhalation and if swallowed

4. First Aid Measures

Eyes Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION.

Skin Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use.

Inhalation Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

Ingestion If conscious give plenty of water to drink. Do not induce vomiting. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

5. Fire Fighting Measures

Hazards Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. Vapour-air mixtures are explosive.

Extinguishing Media Water spray, alcohol resistant foam, dry powder or carbon dioxide. Use water spray to keep fire exposed containers cool.

Unsuitable Media Do not use water jet.

6. Accidental Release Measures

| | |
|---------------------|--|
| Personal Protection | Ensure no sources of ignition. Avoid breathing vapour. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so. |
| Environmental | Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs. |
| Major Spillage | Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water. |
| Minor Spillage | Contain and absorb on inert material. Transfer absorbent to container for removal. Allow solvent to evaporate in remote area, then dispose of absorbent as solid chemical waste. Wash area down with copious amounts of water. |

7. Storage & Handling

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|----------------------|--|
| Handling Precautions | All transfer systems should be earthed to prevent accumulation of static electricity. Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing. Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits. |
| Storage Conditions | Well ventilated, cool, dry storage . Protect from direct sun and store away from sources of ignition. Keep containers closed when not in use. Keep well separated from oxidising agents. |

8.1 Workplace Exposure Limits

| Component | CAS No | Workplace Exposure Limits | | | | Maximum Exposure Limits | | | |
|-----------|---------|---------------------------|--------------------|------------|--------------------|-------------------------|--------------------|------------|--------------------|
| | | Long Term | | Short Term | | Long Term | | Short Term | |
| | | ppm | mg m ⁻³ | ppm | mg m ⁻³ | ppm | mg m ⁻³ | ppm | mg m ⁻³ |
| Methanol | 67-56-1 | 200.0 | 266.0 | 250.0 | 333.0 | - | - | - | - |

Special Hazards Can be absorbed through skin.

8.2 Personal Protection

| | |
|-------------|---|
| Respiratory | Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus. |
| Hands | Use solvent resistant gloves. |
| Eyes | Use chemical splash proof glasses or goggles. |
| Skin | Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn. |

9. Physical & Chemical Properties

| | |
|-----------------------|-------------------------------------|
| Appearance | Clear colourless liquid. |
| Odour | Fresh and characteristic. |
| pH | Not available |
| Boiling point | 64.8 °C |
| Melting point | 97.8- °C |
| Flash point | 12.0 °C(Closed cup) |
| Upper Flammable Limit | 36.5 % |
| Lower Flammable Limit | 6.0 % |
| Auto Ignition | 385.0 °C |
| Explosive properties | Moderate/severe in confined spaces. |
| Oxidising Properties | No. |
| Vapour Pressure | 100 mmHg @ 20,C |
| Relative Density | 0.7900 |
| Water Solubility | Completely miscible in water. |

10. Stability & Reactivity

| | |
|----------------------------------|--|
| Chemical Stability | Stable under normal conditions |
| Conditions to Avoid | Hot surfaces, naked flames or other sources of ignition. |
| Materials to Avoid | Bromine. Sodium hypochlorite, diethyl zinc, dialkylaluminium solutions, and phosphorous trioxide. Nitric acid, hydrogen peroxide, sodium and chloroform and potassium tertiary butoxide. Lead perchlorate. |
| Hazardous Decomposition Products | None unusual. Burning will produce smoke, carbon monoxide and/or carbon dioxide. |

11. Toxicological Information

| | |
|----------------------|---|
| Eyes | Both the vapour and liquid are, very dangerous to the eyes since methanol has a specific effect on the optic nerve and retina. |
| Skin | Repeated exposure may cause dermatitis. Many of the effects typical of the vapour can result from absorption through the skin. |
| LD50 Skin | Rabbit 20g/Kg |
| Ingest | Ingestion will cause symptoms resembling those of alcoholic intoxication ie excitation and irritability. After a latent period of 10-15 hours more serious damage to the central nervous system especially to the optic nerve occurs. Even if death does not occur permanent blindness may occur. |
| LD50 Ingest | Oral Rat 13g/kg |
| Inhalation | Exposure to vapour concentrations above the occupational exposure limits may cause headache, nausea, vomiting and irritation of the mucous membranes. High concentrations of vapour may damage the central nervous system and cause blindness. Due to the slow metabolism of the toxic metabolites formic acid and formaldehyde the effects can be cumulative and continued exposure to low levels may cause the above effects. |
| Carcinogenicity | Not considered to be a carcinogen. |
| Mutagenicity | Not considered to be a mutagen. |
| Reproductive Effects | High vapour concentrations (10000 ppm) caused increased congenital malformations. |

12. Ecological

Substantially biodegradable in water, biological oxygen demand (B.O.D.) 5 day 70%. No evidence of inhibition to the aerobic treatment process at 39500mg/l but evidence of inhibition occurs at concentrations greater than 79000mg/l.

13. Disposal Considerations

| | |
|------------------------|--|
| Disposal Methods | Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste. Never dispose of into water courses or sewerage systems due to high risk of explosion. |
| Contaminated Packaging | Use a licensed waste disposer. Do not attempt to burn any residual liquids due to risk of explosion. |

14. Transport Information

| | |
|----------------------|---------------------|
| Proper Shipping Name | Methanol |
| UN Number | 1230 |
| UN Classification | 3 Flammable liquid |
| Subsidiary Risk | 6.1 Toxic |
| Flash Point | 12.0 °C(Closed cup) |
| Packing Group | II |
| Transport Category | 2 |
| Marine pollutant | No |
| ADR Hazard ID | 336 |



15. Regulatory Information

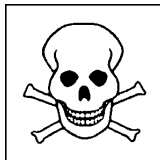
Labelling Classification Highly Flammable, Toxic.

Label Symbols

F



T



Risk & safety Phrases Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Harmful: possible risk of irreversible effects through inhalation and if swallowed Keep locked up and out of reach of children. Keep container tightly closed. Keep away from sources of ignition - No Smoking. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label).

EEC Number 200-659-6

16. Other Information

Document Information This document has been prepared in accordance with directive 88/379/EEC.

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment.

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