

# Methanol

\*\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*\*

Methyl alcohol, 99+%

## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**MSDS Name:** Methyl alcohol, 99+%

**Catalog Numbers:** 17715-0000, 17715-0010, 17715-0025, 17715-0250

**Synonyms:** Methanol

Company Identification (Europe): Acros Organics BVBA

Janssen Pharmaceuticaaan 3a

2440 Geel, Belgium

**Company Identification (USA):** Acros Organics

One Reagent Lane

Fairlawn, NJ 07410

For information in North America, call: 800-ACROS-01

For information in Europe, call: 0032(0) 14575211

For emergencies in the US, call CHEMTREC: 800-424-9300

For emergencies in Europe, call: 0032(0) 14575299

## SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	%	EINECS#	Haz Symbols	Risk Phrases
67-56-1	Methyl alcohol	99+%	200-659-6		

**Hazard Symbols:** T F

**Risk Phrases:** 11 23/24/25 39/23/24/25

## SECTION 3 - HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic : danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

### Potential Health Effects

**Eye:** Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury. May cause painful sensitization to light.

**Skin:** Causes moderate skin irritation. May be absorbed through the skin in harmful amounts. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis.

**Ingestion:** May be fatal or cause blindness if swallowed. Cannot be made non-poisonous. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause systemic toxicity with acidosis. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. May cause cardiopulmonary system effects.

**Inhalation:** May cause adverse central nervous system effects including headache, convulsions, and possible death. May cause visual impairment and possible permanent blindness. Causes irritation of mucous membrane.

**Chronic:** Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. Chronic exposure may cause reproductive disorders and teratogenic effects. Laboratory experiments have resulted in mutagenic effects.

## SECTION 4 - FIRST AID MEASURES

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower

eyelids. Get medical aid immediately.

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Induce vomiting by giving one teaspoon of Syrup of Ipecac. Wash mouth out with water.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Effects may be delayed. Ethanol may inhibit methanol metabolism. Treat symptomatically and supportively.

## SECTION 5 - FIRE FIGHTING MEASURES

**General Information:** Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

**Extinguishing Media:** Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. Use flooding quantities of water as spray.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Use water spray to disperse the gas/vapor. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces.

## SECTION 7 - HANDLING and STORAGE

**Handling:** Wash thoroughly after handling. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

**Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

## SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

### Personal Protective Equipment

**Eyes:** Wear chemical goggles.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Clear liquid  
**Color:** colorless  
**Odor:** alcohol-like  
**pH:** Not available.  
**Vapor Pressure:** 128 mm Hg @20 deg C  
**Viscosity:** 0.55 cP@ 20 deg C  
**Boiling Point:** 64.7 deg C @ 760.00mm Hg  
**Freezing/Melting Point:** -98 deg C  
**Autoignition Temperature:** 455 deg C ( 851.00 deg F)  
**Flash Point:** 12 deg C ( 53.60 deg F)  
**Explosion Limits, lower:** 6.00 vol %  
**Explosion Limits, upper:** 31.00 vol %  
**Decomposition Temperature:**  
**Solubility in water:** Miscible.  
**Specific Gravity/Density:** .7910g/cm3  
**Molecular Formula:** CH4O  
**Molecular Weight:** 32.04

## SECTION 10 - STABILITY AND REACTIVITY

**Chemical Stability:** Stable.

**Conditions to Avoid:** Incompatible materials, ignition sources, exposure to moist air or water.

**Incompatibilities with Other Materials:** Reducing agents, acid chlorides, alkali metals, magnesium, acid anhydrides, acids, oxidizing agents, metals as powders (e.g. hafnium, raney nickel), potassium, sodium.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, formaldehyde.

**Hazardous Polymerization:** Will not occur.

## SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 67-56-1: PC1400000

LD50/LC50:

CAS# 67-56-1: Draize test, rabbit, eye: 40 mg Moderate; Draize test, rabbit, eye: 100 mg/24H Moderate; Draize test, rabbit, skin: 20 mg/24H Moderate; Inhalation, rabbit: LC50 = 81000 mg/m3/14H; Inhalation, rat: LC50 = 64000 ppm/4H; Oral, mouse: LD50 = 7300 mg/kg; Oral, rabbit: LD50 = 14200 mg/kg; Oral, rat: LD50 = 5600 mg/kg; Skin, rabbit: LD50 = 15800 mg/kg.

Carcinogenicity:

Methyl alcohol -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

See actual entry in RTECS for complete information.

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecotoxicity:**

**Goldfish (fresh water), 250 ppm/11H, death. Aquatic toxicity rating:** TLm 96 >1000 ppm. LC50(48hr) trout 8000 mg/l. LC50(24hr) brine shrimp 10000 mg/l. EC50(30min) Photobacterium phosphoreum 51000-320000ppm, microtox test (Kaiser, K.L.E. et al. Water Pollut. Res. J. Can. 1991, 26(3), 361-431) Bioaccumulation. Bioconcentration factor for golden ide <10 (Freitag, D. et al. Chemosphere 1985, 14, 1589-1616).

**Other:** Avoid entering into waters or underground water. Do not empty into drains.

## SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

## SECTION 14 - TRANSPORT INFORMATION

IATA

**Shipping Name:** METHANOL  
**Hazard Class:** 3  
**UN Number:** 1230  
**Packing Group:** II

IMO

**Shipping Name:** METHANOL  
**Hazard Class:** 3  
**UN Number:** 1230  
**Packing Group:** II

RID/ADR

**Shipping Name:** METHANOL  
**Hazard Class:** 3  
**UN Number:** 1230  
**Packing group:** II

**USA RQ:**CAS# 67-56-1: 5000 lb final RQ; 2270 kg final RQ

## SECTION 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

**Hazard Symbols:** T F

**Risk Phrases:**

R 11 Highly flammable.

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R 39/23/24/25 Toxic : danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

**Safety Phrases:**

S 7 Keep container tightly closed.

S 16 Keep away from sources of ignition – No smoking.

S 36/37 Wear suitable protective clothing and gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 67-56-1: 1

United Kingdom Occupational Exposure Limits

CAS# 67-56-1: OES-United Kingdom, TWA 200 ppm TWA; 266 mg/m<sup>3</sup> TWA

CAS# 67-56-1: OES-United Kingdom, STEL 250 ppm STEL; 333 mg/m<sup>3</sup> STEL

United Kingdom Maximum Exposure Limits

Canada

CAS# 67-56-1 is listed on Canada's DSL List.

CAS# 67-56-1 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 67-56-1: OEL-ARAB Republic of Egypt:TWA 200 ppm (260 mg/m<sup>3</sup>);Skin

US FEDERAL

TSCA

CAS# 67-56-1 is listed on the TSCA inventory.

## **SECTION 16 - ADDITIONAL INFORMATION**

**MSDS Creation Date:** 12/21/1999 Revision #0 Date: Original.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.