

Methyl Alcohol, Anhydrous, ACS

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Methyl Alcohol, Anhydrous, ACS

Synonyms/Generic Names: Methanol

Product Number: 3475

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information Call: 920-623-2140 (Monday-Friday 8:00-4:30)

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Flammable liquid, Target organ effect, Toxic by ingestion, Toxic by skin absorption

Target Organs: Eyes, Kidney, Liver, Heart, Central nervous system

Signal Words: Danger

Pictograms:



GHS Classification:

Flammable liquids	Category 2
Acute toxicity, Oral	Category 3
Acute toxicity, Inhalation	Category 3
Acute toxicity, Dermal	Category 3
Specific target organ toxicity-single exposure	Category 1

GHS Label Elements, including precautionary statements:

Hazard Statements:

H225	Highly flammable liquid and vapor.
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.
H370	Causes damage to organs.

Precautionary Statements:

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P240	Ground/Bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.
P303+P361+P353	IF ON SKIN (or hair): 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.
P308+P311	IF exposed or concerned: Call a POISON CENTER/doctor/physician.
P330	Rinse mouth.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use dry chemical, carbon dioxide or alcohol-resistant foam to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

Potential Health Effects

Eyes	Causes irritation.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation
Skin	Toxic if absorbed through skin. Causes skin irritation.
Ingestion	Toxic if swallowed.

NFPA Ratings

Health	1
Flammability	3
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	2
Fire	3
Reactivity	0
Personal	H

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Methyl Alcohol	>99	67-56-1	200-659-6	CH ₃ OH	32.04 g/mol

4. FIRST- AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot
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	surface. No smoking. Use carbon dioxide, alcohol-type foam or dry chemical. Containers may explode in a fire. Cool containers from a distance using water spray.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Containers may rupture in the heat of the fire. Do not use direct stream, as it may spread the fire. Emits toxic fumes (carbon oxides) under fire conditions. Vapors may collect in low areas. (See also Stability and Reactivity section.)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to a federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area in tightly-closed, plainly-labeled containers. Do not store with acids, acid chlorides, acid anhydrides, oxidizing agents, alkali metals, reducing agents. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Ventilation and appropriate grounding of containers

Component	Exposure Limits	Basis	Entity
Methyl Alcohol	200 ppm 262 mg/m ³	TLV	ACGIH
	250 ppm 328 mg/m ³	STEL	ACGIH
	200 ppm 260 mg/m ³	PEL	OSHA
	200 ppm 260 mg/m ³	REL	NIOSH
	250 ppm 325 mg/m ³	STEL	NIOSH

TWA: Time Weighted Average over 8 hours of work.
 TLV: Threshold Limit Value over 8 hours of work.
 REL: Recommended Exposure Limit
 PEL: Permissible Exposure Limit
 STEL: Short Term Exposure Limit during x minutes.
 IDLH: Immediately Dangerous to Life or Health
 WEEL: Workplace Environmental Exposure Levels
 CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles, and face shield.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, and full body covering. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear, colorless liquid
Odor	Mild alcohol
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	-98°C (-144°F)
Initial boiling point and boiling range	65°C (143°F)
Flash point	12°C (54°F) Closed cup
Evaporation rate	2.0
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limit	LFL: 6.0% UFL:36.0%
Vapor pressure	(@ 20°C) 96 mmHg
Vapor density	(air=1) 1.11
Relative density	(@25°C) .9560 g/cm ³
Solubility (ies)	Completely soluble in water
Partition coefficient: n-octanol/water	Low Pow: -0.77
Auto-ignition temperature	455°C (725°F)
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Keep away from heat, flame and sparks.
Incompatible Materials	Do not store with strong oxidizing agents, strong acids, peroxides, aldehydes, halogens, ammonia, acid anhydrides or alkali metals.
Hazardous Decomposition Products	Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Methanol

Skin	LD50 Dermal- rabbit- 15,800 mg/kg
Eyes	Eyes- rabbit- Eye irritation- 24 hour
Respiratory	LC ₅₀ rat- 85 mg/L, 4 hours LC ₅₀ rat- 64000 ppm, 4 hours
Ingestion	LD ₅₀ rat- 5,628 mg/kg

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Burning, itching, redness may be harmful if absorbed through skin.
Eyes	Causes irritation. Redness, excessive blinking and watering eyes.
Respiratory	Coughing, wheezing, headache, disorientation, blurred vision, dizziness, fatigue or nausea.
Ingestion	Nausea, vomiting, may cause blindness and central nervous system depression.

Chronic Toxicity	Ingestion may cause blindness
Teratogenicity	Damage to fetus not classifiable.
Mutagenicity	Does not cause mutation in mammalian somatic cells. -Genotoxicity in vitro - Ames test - S. typhimurium - with and without metabolic activation – negative -Genotoxicity in vitro - in vitro assay - fibroblast – negative -Genotoxicity in vivo - mouse - male and female - Intraperitoneal - negative
Embryotoxicity	Pre-and Post- implant mortality
Specific Target Organ Toxicity	Single exposure- Causes damage to organs
Reproductive Toxicity	Fertility classification not possible from current data.
Respiratory/Skin Sensitization	Does not cause skin sensitization. -Maximization Test - guinea pig - OECD Test Guideline 406- Does not cause skin sensitization.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Methanol

Aquatic Vertebrate	Do not release directly into surface water LC ₅₀ = 15,400 mg/L, 96 hours (Lepomis Macrochirus) LC50- Oncorhynchus mykiss (rainbow trout)- 19,000 mg/l- 96 h LC50- Cyprinus carpio (Carp)- 36,000.00 mg/l- 48 h
Aquatic Invertebrate	EC50- Daphnia magna (Water flea)- 24,500.00 mg/l- 48 h EC100- Daphnia magna (Water flea)- 10,000.00 mg/l- 24 h
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	BCF of 1
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Biochemical Oxygen Demand (BOD): 600 - 1,120 mg/g Chemical Oxygen Demand (COD): 1,420 mg/g

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container or residue.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN1230, Methanol, 3, pg II
TDG	UN1230, METHANOL, 3, pg II
IMDG	UN1230, METHANOL, 3, pg II
Marine Pollutant	No
IATA/ICAO	UN1230, Methanol, 3 pg II

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	No SARA Hazard
SARA 304	No SARA Hazard
SARA 311	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 312	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 313	Listed: Methanol
WHMIS Canada	Class B-2: Flammable liquid Class D-1B: Toxic material causing immediate and serious toxic effects Class D-2A: Very toxic material causing other toxic effects Class D-2B: Toxic material causing other toxic effects

16. OTHER INFORMATION

Revision	Date
Revision 1	07-13-2011
Revision 2	08/01/2013
Revision 3	01/20/2015

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