Safety Data Sheet

Methyl Alcohol

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Methyl Alcohol

Synonyms/Generic Names: Methanol

SDS Number: 453.00

Product Use: For Educational Use Only

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

For More Information Contact: Ward's Science
5100 West Henrietta Rd.
PO Box 92912-9012
Rochester, NY 14692
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)

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, Irritant

Target Organs: Eyes, Skin, Respiratory system, Central nervous system, Gastrointestinal tract, Kidney, Liver, Heart

Signal Words: Danger

Pictograms:

GHS Classification:

Flammable liquids	Category 2
Skin irritation	Category 2
Eye irritation	Category 2A
Specific target organ toxicity – single exposure	Category 1

GHS Label Elements, including precautionary statements:

Hazard Statements:

H225	Highly flammable liquid and vapor
H315	Causes skin irritation
H319	Causes serious eye irritation
H370	Causes damage to organs

Precautionary Statements:

P210	Keep away from heat/sparks/open flames/hot surfaces- No smoking
P260	Do not breathe dust/fumes/gas/mist/vapors/spray
P280	Wear protective gloves/protective clothing
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing
P307+P311	IF exposed: Call a POISON CENTER or doctor/physician

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_3OH	32.04 g/mol

4. FIRST- AID MEASURES

Eyes	In case of eye contact, rinse with plenty of water 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	Immediately 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 liquid. 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 with face shield.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat.
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

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	Not Available
Mutagenicity	Not Available
Embryotoxicity	Pre-and Post- implant mortality
Specific Target Organ Toxicity	Single exposure- Causes damage to organs

12. ECOLOGICAL INFORMATION

Ecotoxicity

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	Not Available

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 products or residues.
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	Listed: Methanol
SARA 304	Listed: Methanol
SARA 311	Methanol
SARA 312	Methanol
SARA 313	Listed: Methanol
WHMIS Canada	Class B2: Flammable liquids Class D1B: Toxic Material Causing Immediate and Serious Toxic Effects Class D2A: Very Toxic Material Causing Other Toxic Effects Class D2B: Toxic Material Causing Other Toxic Effects

16. OTHER INFORMATION

Revision	Date
Revision 1	01/31/2013