



# Material Safety Data Sheet

## 1. Product and Company Identification

Product name : **Methanol**

Chemical formula : CH<sub>3</sub>OH

Synonyms : Methyl alcohol; Wood alcohol; Methyl Hydroxide; Carbinol; Wood spirit; Monohydroxymethane; Wood Naphtha; Methylol; Colonial Spirit; Columbian spirit; Pyroxylic spirit; UN 1230

Company : Specialty Gases of America, Inc  
6055 Brent Dr.  
Toledo, OH 43611

Telephone : 419-729-7732

Emergency : 800-424-9300

## 2. Composition/Information on Ingredients

Components	CAS Number	% Volume
Methanol	67-56-1	100%

## 3. Hazards Identification

### Emergency Overview

Flammable liquid and vapor. Vapor may cause flash fire.  
May cause skin irritation, eye irritation, central nervous system depression.

### Potential Health Effects

Inhalation : Same as reported in ingestion, irritation, ringing in the ears, digestive disorders, symptoms of drunkenness, visual disturbances, nerve damage, headache.

Eye contact : Irritation, eye damage.

Skin contact : Same as reported in ingestion, irritation, symptoms of drunkenness, nerve damage.

Ingestion : Nausea, vomiting, diarrhea, difficulty breathing, irregular heartbeat, headache, drowsiness, symptoms of drunkenness, disorientation, hearing loss, blindness, bluish skin color, lung congestion, nerve damage, convulsions, coma.

Chronic Health Hazard : Not available.

## 4. First Aid Measures

Eye contact : Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Skin contact : Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Ingestion : If a large amount is swallowed, get immediate medical attention.

Inhalation : If adverse effects occur, remove to uncontaminated area. Give artificial

respiration if not breathing. Get immediate medical attention.  
Antidote : Ethanol, oral; Calcium gluconate/glucose, intravenous. 4-methylpyrazole, oral, intravenous.

## 5. Fire-Fighting Measures

Suitable extinguishing media : Regular dry chemical, carbon dioxide, water, alcohol-resistant foam.  
Large fires: Use alcohol-resistant foam or flood with fine water spray.  
Specific hazards : Severe fire hazard. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Vapor/air mixtures are explosive.  
Fire fighting : Move container from fire area if it can be done without risk. Dike for later disposal. Do not scatter spilled material with high-pressure water streams. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile).

## 6. Accidental Release Measures

Air release : Reduce vapors with water spray.  
Soil release : Dig holding area such as lagoons, pond or pit for containment. Dike for later disposal.  
Water release : Cover with absorbent sheets, spill-control pads or pillows. Remove trapped material with suction hoses.  
Occupational spill/release : Avoid heat, flames, sparks and other sources of ignition. Do not touch spilled material. Stop leak if possible without personal risk. Reduce vapors with water spray. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).  
Additional advice : None.

## 7. Handling and Storage

### Handling

Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.

### Storage

Store in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.106. Keep separated from incompatible substances.

## 8. Exposure Controls / Personal Protection

### Exposure limits

ACGIH : 200 ppm TWA  
250 ppm STEL  
Skin – potential significant contribution to overall exposure by the cutaneous rate  
OSHA (final) : 200 ppm TWA; 260 mg/m<sup>3</sup> TWA  
OSHA (vacated) : 250 ppm STEL; 325 mg/m<sup>3</sup> STEL  
200 ppm TWA; 260 mg/m<sup>3</sup> TWA  
Prevent or reduce skin absorption

NIOSH : 250 ppm STEL; 325 mg/m<sup>3</sup> STEL  
200 ppm TWA; 260 mg/m<sup>3</sup> TWA  
Potential for dermal absorption

Component Biological Limit Values

ACGIH : Methanol in urine: 15 mg/L, end of shift (B, Ns)

IDLH

6000 ppm

Engineering measures/Ventilation

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present.  
Ensure compliance with applicable exposure limits.

Personal protective equipment

Respiratory protection : The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.  
2000 ppm – Any supplied-air respirator.  
5000 ppm – Any supplied-air respirator operated in a continuous-flow mode.  
6000 ppm – Any supplied-air respirator with a tight-fitting facepiece that is operated in a continuous-flow mode.  
Any self-contained breathing apparatus with a full facepiece.  
Any supplied-air respirator with a full facepiece.  
Emergency or planned entry into unknown concentrations or IDLH conditions – Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.  
Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.  
Escape – Any appropriate escape-type, self-contained breathing apparatus.

Hand protection : Wear appropriate chemical resistant gloves.

Eye protection : Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin and body protection : Wear appropriate chemical resistant clothing.

**9. Physical and Chemical Properties**

Form : Liquid.  
Color : Colorless.  
Odor : Sweet odor.  
Molecular weight : 32.04  
Vapor pressure : 97.25 mmHg @ 20°C  
Vapor density : 1.11 (air = 1)  
Boiling point : 65°C  
Melting point : -94°C  
Specific gravity : 0.7914 (water = 1)  
Evaporation rate : 4.6 (butyl acetate = 1)  
Water solubility : Soluble.  
Solvent solubility : Soluble: ether, benzene, alcohol, acetone, chloroform, ethanol.

## 10. Stability and Reactivity

Stability	: Stable under normal conditions.
Conditions to avoid	: None known.
Materials to avoid	: Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Avoid inhalation of material or combustion by-products. Keep out of water supplies and sewers.
Hazardous decomposition products	: Thermal decomposition products: oxides of carbon.

## 11. Toxicological Information

The components of this material have been reviewed in various sources and the following endpoints are published:

METHANOL (67-56-1) : Oral LC50 Rat: 83.2 mg/L/4H; Inhalation LC50 Rat: 64000 ppm/4H; Oral LD50 Rat: 5628 mg/kg; Dermal LD50 Rabbit: 15800 mg/kg

### Acute Toxicity Level

METHANOL (67-56-1) : Slightly toxic: dermal absorption, ingestion  
Non toxic: inhalation

### Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, OSHA or DFG.

### Local Effects

METHANOL (67-56-1) : Irritant: skin, eye

### Target Organs

METHANOL (67-56-1) : Nervous system

### Medical Conditions Aggravated by Exposure

Eye disorders, kidney disorders, skin disorders and allergies.

### Additional Data

May cause blindness.

## 12. Ecological Information

### Aquatic Toxicity

METHANOL (67-56-1) : Fish: 96 Hr LC50 Pimephales promelas: 28200 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: > 100 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 19500 – 20700 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 18 – 20 mL [static]; 96 Hr LC50 Lepomis macrochirus: 13500 – 17600 mg/L [flow-through]

## 13. Disposal Considerations

Waste from residues / unused products	: Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): U154.
Contaminated packaging	: Return cylinder to supplier.
Component Waste Numbers	: METHANOL (67-56-1) RCRA: waste_number U154 (Ignitable waste)

#### 14. Transport Information

##### DOT (US only)

Proper shipping name : Methanol  
Class : 3, Packing Group II  
UN/ID No. : UN1230  
Labeling : Flammable Liquid, Poison

#### 15. Regulatory Information

##### U.S. Federal Regulations

This material contains one or more of the following chemicals required under SARA Section 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

METHANOL (67-56-1) : SARA 313: 1.0% de minimis concentration  
CERCLA: 5000 lb final RQ; 2270 kg final RQ

##### SARA 311/312

Acute: Yes  
Chronic: No  
Fire: Yes  
Reactive: No  
Pressure: No

##### U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
METHANOL	67-56-1	Yes	Yes	Yes	Yes	Yes	Yes

Not regulated under California Proposition 65

#### 16. Other Information

Prepared by : Specialty Gases of America, Inc.  
For additional information, please visit our website at [www.americangasgroup.com](http://www.americangasgroup.com).