

1. Product and Company Identification

Material name	METHYL ALCOHOL
Version #	04
Revision date	06-25-2010
CAS #	67-56-1
Product Codes	J.T.Baker: 5370, 5595, 5794, 5811, 5842, 5869, 9049, 9063, 9065, 9066, 9067, 9069, 9070, 9071, 9073, 9076, 9077, 9091, 9093, 9096, 9097, 9098, 9190, 9193, 9263, 9822, 9830, 9863, V654, XL-319 Mallinckrodt: 3004, 3006, 3016, 3017, 3018, 3024, 3041, 3701, 4295, 5160, 8814, 8818, H080, H488, H603, H985, V079, V571
Synonym(s)	Wood alcohol * Carbinol * Methanol
Manufacturer	Mallinckrodt Baker, Inc.
Address	222 Red School Lane Phillipsburg, NJ 08865 US
Customer Service	800-582-2537
24 Hour Emergency	908-859-2151
Chemtrec	800-424-9300

2. Hazards Identification

Emergency overview	DANGER -- POISON VAPOR HARMFUL. May be fatal or cause blindness if swallowed. Cannot be made nonpoisonous. FLAMMABLE LIQUID AND VAPOR. Will be easily ignited by heat, spark or flames. Harmful in contact with eyes. Harmful if inhaled or absorbed through skin. Causes skin and eye irritation. May cause irritation to the respiratory system. May cause central nervous system effects. May cause damage to the liver. Prolonged exposure may cause chronic effects.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Ingestion. Inhalation. Skin contact. Eye contact.
Eyes	Contact may irritate or burn eyes. Contact with eyes may cause irritation. Eye contact may result in corneal injury. Do not get this material in contact with eyes.
Skin	Irritating to skin. Avoid contact with the skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Inhalation	Toxic effects exerted upon nervous system, particularly the optic nerve. May cause irritation of respiratory tract. Avoid breathing dust/fume/gas/mist/vapors/spray. Once absorbed into the body, it is very slowly eliminated. Symptoms of overexposure may include headache, drowsiness, nausea, vomiting, blurred vision, blindness, coma and death. A person may get better but then worse again up to 30 hours later.
Ingestion	Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness. Components of the product may be absorbed into the body by ingestion. Do not ingest.
Target organs	Eyes. RESPIRATORY SYSTEM. Skin. Central nervous system. Gastro-intestinal tract. Liver.
Chronic effects	Conjunctiva. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Signs and symptoms Upper respiratory tract irritation. Irritation of eyes and mucous membranes. Corneal damage. Narcosis. Decrease in motor functions. Behavioral changes. Conjunctivitis. Defatting of the skin. Rash. Skin irritation.

Potential environmental effects May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
METHYL ALCOHOL	67-56-1	100

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Skin contact Wash off with warm water and soap. Get medical attention if irritation develops and persists. Take off immediately all contaminated clothing.

Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

Ingestion IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting without advice from poison control center. Rinse mouth thoroughly.

Notes to physician Symptoms may be delayed.

General advice If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties Flammable by OSHA criteria. Runoff to sewer may cause fire or explosion hazard. Heat may cause the containers to explode.

Extinguishing media

Suitable extinguishing media Water. Foam. Dry powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Protection of firefighters

Protective equipment and precautions for firefighters In case of fire and/or explosion do not breathe fumes. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Move containers from fire area if you can do so without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire.

Special protective equipment for fire-fighters Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Specific methods In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers.

6. Accidental Release Measures

Personal precautions Ventilate the area. Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

Environmental precautions Do not contaminate water.

Methods for containment ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up

Should not be released into the environment.

Large Spills: Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece).

Never return spills in original containers for re-use. Following product recovery, flush area with water. Clean surface thoroughly to remove residual contamination.

J. T. Baker SOLUSORB® solvent adsorbent is recommended for spills of this product.

7. Handling and Storage

Handling

Vapors may form explosive mixtures with air. Do not smoke. All equipment used when handling the product must be grounded. Do not get this material in contact with eyes. Avoid contact with skin. Use only in area provided with appropriate exhaust ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Avoid release to the environment. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight.

Storage

The pressure in sealed containers can increase under the influence of heat. Keep away from heat and sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in cool place. Store in a well-ventilated place. Keep container tightly closed. Keep in an area equipped with sprinklers. Keep out of the reach of children. Use care in handling/storage. Keep away from heat, sparks and open flame. Keep away from food, drink and animal feedingstuffs.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Material

Type

Value

METHYL ALCOHOL (67-56-1)

STEL

250.0000 ppm

TWA

200.0000 ppm

U.S. - OSHA

Material

Type

Value

METHYL ALCOHOL (67-56-1)

PEL

200.0000 ppm

260.0000 mg/m3

STEL

325.0000 mg/m3

250.0000 ppm

TWA

200.0000 ppm

260.0000 mg/m3

Engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Explosion-proof general and local exhaust ventilation.

Personal protective equipment

Eye / face protection

Do not get in eyes. Chemical goggles are recommended. Eye wash fountain and emergency showers are recommended.

Skin protection

Avoid contact with the skin. Wear appropriate chemical resistant clothing. Chemical resistant gloves.

Respiratory protection

A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

General hygiene considerations

When using do not smoke. Do not get in eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

General

Avoid contact with skin. Avoid contact with eyes.

9. Physical & Chemical Properties

Appearance	Clear.
Color	Colorless.
Odor	Characteristic.
Odor threshold	Not available.
Physical state	Liquid.
Form	Liquid.
pH	Not available.
Melting point	-144.4 °F (-97.8 °C)
Freezing point	-144.4 °F (-97.8 °C)
Boiling point	149 °F (64.7 °C) 101.3232 kPa
Flash point	53.6 °F (12 °C) Closed Cup
Evaporation rate	5.9 BuAc
Flammability	Not available.
Flammability limits in air, upper, % by volume	96.8 °F (36 °C)
Flammability limits in air, lower, % by volume	42.8 °F (6 °C)
Vapor pressure	16.9316 kPa at 25°C
Vapor density	1.1
Specific gravity	0.7866
Relative density	Not available.
Solubility (water)	Miscible
Partition coefficient (n-octanol/water)	-0.77
Auto-ignition temperature	464 °F (240 °C)
Decomposition temperature	Not available.
Percent volatile	100 %
Molecular weight	32.04 g/mol
Molecular formula	CH3OH

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions. Risk of ignition.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents. Contact with metals may evolve flammable hydrogen gas.
Hazardous decomposition products	Irritants. Toxic gas. Carbon oxides. Formaldehyde.

11. Toxicological Information

Toxicological data**Product**

METHYL ALCOHOL (67-56-1)

Test Results

Acute Dermal LD50 Rabbit: 15800 mg/kg

Acute Inhalation LC50 Rat: 87.5 mg/l 6.00 Hours

Product

METHYL ALCOHOL (67-56-1)

Test Results

Acute Oral LD50 Rat: 5628 mg/kg

* Estimates for product may be based on additional component data not shown.

Sensitization**US ACGIH Threshold Limit Values: Skin designation**

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

Local effects

Components of the product may be absorbed into the body through the skin. Irritating to skin. Contact may irritate or burn eyes.

Chronic effects

Hazardous by OSHA criteria. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Skin corrosion/irritation

Not available.

Epidemiology

Hazardous by OSHA criteria.

Neurological effects

Hazardous by OSHA criteria.

Further information

Symptoms may be delayed.

12. Ecological Information**Ecotoxicological data****Product**

METHYL ALCOHOL (67-56-1)

Test Results

EC50 Water flea (Daphnia magna): > 10000 mg/l 48.00 Hours

LC50 Fathead minnow (Pimephales promelas): > 100 mg/l
96.00 Hours

* Estimates for product may be based on additional component data not shown.

Ecotoxicity

Contains a substance which causes risk of hazardous effects to the environment.

Environmental effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence and degradability

Not available.

**Partition coefficient
(n-octanol/water)**

-0.77

13. Disposal Considerations**Waste codes**

D001: Waste Flammable material with a flash point <140 F

US RCRA Hazardous Waste U List: Reference

METHYL ALCOHOL (CAS 67-56-1)

U154

Disposal instructions

Dispose of this material and its container to hazardous or special waste collection point. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations.

14. Transport Information**DOT****Basic shipping requirements:**

UN number UN1230
Proper shipping name Methanol
Hazard class 3
Subsidiary hazard class 6.1
Packing group II

Additional information:

Special provisions IB2, T7, TP2
Packaging exceptions 150
Packaging non bulk 202
Packaging bulk 242
Reportable quantity 5000
ERG number 131

IATA

Basic shipping requirements:

UN number 1230
Proper shipping name Methanol
Hazard class 3
Subsidiary hazard class 6.1
Packing group II

IMDG

Basic shipping requirements:

UN number 1230
Proper shipping name METHANOL
Hazard class 3
Subsidiary hazard class 6.1
Packing group II



DOT



IATA



IMDG

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

METHYL ALCOHOL (CAS 67-56-1) 1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

METHYL ALCOHOL (CAS 67-56-1) Listed.

CERCLA (Superfund) reportable quantity

METHYL ALCOHOL: 5000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 311 hazardous chemical Yes

Clean Air Act (CAA) HAPS list

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

METHYL ALCOHOL (CAS 67-56-1) 500 LBS

US - Pennsylvania RTK - Hazardous Substances: Listed substance

METHYL ALCOHOL (CAS 67-56-1) Listed.

Saf-T-Data Health: 3 - Severe (Poison)
Flammability: 3 - Severe (Flammable)
Reactivity: 1 - Slight
Contact: 3 - Severe (Life)
Lab Protective Equip: DB - GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER
Storage Color Code: R - Red (Flammable)

16. Labeling Info

Label Hazard Warning DANGER -- POISON
VAPOR HARMFUL.
FLAMMABLE LIQUID AND VAPOR. May be fatal or cause blindness if swallowed. Cannot be made nonpoisonous. Harmful if inhaled. Harmful if absorbed through skin. Irritating to eyes, respiratory system and skin. May cause central nervous system effects. May cause damage to the liver.

Label Precautions Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Keep away from heat, sparks and flame. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation.

Label First Aid Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately. Immediately flush skin with plenty of water. If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting without advice from poison control center.

17. Other Information

NFPA ratings Health: 1
Flammability: 3
Instability: 0

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This data sheet contains changes from the previous version in section(s):

Labeling Info: Label Precautions