

1 Identification

Product identifier

Product name: Methanol-d

Stock number: 89571

CAS Number:

1455-13-6

EC number:

212-376-6

Relevant identified uses of the substance or mixture and uses advised against.

Identified use: SU24 Scientific research and development

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar

Thermo Fisher Scientific Chemicals, Inc.

30 Bond Street

Ward Hill, MA 01835-8099

Tel: 800-343-0660

Fax: 800-322-4757

Email: tech@alfa.com

www.alfa.com

Information Department: Health, Safety and Environmental Department

Emergency telephone number:

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

2 Hazard(s) identification

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS06 Skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.

Acute Tox. 2 H310 Fatal in contact with skin.

Acute Tox. 2 H330 Fatal if inhaled.



GHS08 Health hazard

STOT SE 1 H370 Causes damage to the eyes and the brain. Route of exposure: Oral and Inhalative, Dermal.

Hazards not otherwise classified No information known.

Label elements

GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

Hazard pictograms



GHS02 GHS06 GHS08

Signal word

Danger

Hazard statements

H225 Highly flammable liquid and vapor.

H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled.

H370 Causes damage to the eyes and the brain. Route of exposure: Oral and Inhalative, Dermal.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P320 Specific treatment is urgent (see on this label).

P361 Take off immediately all contaminated clothing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification

B2 - Flammable liquid

D1A - Very toxic material causing immediate and serious toxic effects

D2A - Very toxic material causing other toxic effects



Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH 2 Health (acute effects) = 2

FIRE 3 Flammability = 3

REACTIVITY 1 Physical Hazard = 1

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Product name: Methanol-d

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3 Composition/information on ingredients

Chemical characterization: Substances
CAS# Description:
1455-13-6 Methanol-d
Identification number(s):
EC number: 212-378-6

4 First-aid measures

Description of first aid measures
General information
Immediately remove any clothing soiled by the product.
Remove breathing apparatus only after contaminated clothing has been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.
After skin contact
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing Do not induce vomiting; immediately call for medical help.
Information for doctor
Most important symptoms and effects, both acute and delayed
Nausea
Dizziness
Headache
Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Extinguishing media
Suitable extinguishing agents Extinguishing powder. Do not use water.
Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
Carbon monoxide (CO)
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources
Environmental precautions: Do not allow material to be released to the environment without proper governmental permits.
Methods and material for containment and cleaning up:
Keep away from ignition sources.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to section 13.
Ensure adequate ventilation.
Prevention of secondary hazards: Keep away from ignition sources.
Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Handling
Precautions for safe handling
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Open and handle container with care.
Information about protection against explosions and fires:
Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.
Keep ignition sources away.
Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles:
Unsuitable material for receptacle: aluminum.
Store in a cool location.
Information about storage in one common storage facility: No information known.
Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems:
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
Control parameters
Components with limit values that require monitoring at the workplace:

Methyl alcohol
ppm
ACGIH TLV 200; 250-STEL (skin)
Austria MAK 200 (skin)
Belgium TWA 200; 250-STEL (skin)

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USA

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Denmark TWA 200 (skin)
Finland TWA 200; 250-STEL (skin)
France VME 200; 1000-VLE
Germany TWA 200
Hungary TWA 50 mg/m3; 100 mg/m3-STEL (skin)
Ireland TWA 200; 250-STEL (skin)
Japan OEL 200 (skin)
Korea TLV 200; 250-STEL (skin)
Netherlands MAC-TGG 200 (skin)
Norway TWA 100
Poland TWA 100; 300-STEL
Russia TWA 200; 5 mg/m3-STEL (skin)
Sweden NGV 200; 250-KTV (skin)
Switzerland TWA 200; 400-STEL (skin)
United Kingdom TWA 200; 250-STEL (skin)
OSHA PEL 200

Additional information: No data

Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

Maintain an ergonomically appropriate working environment.

Breathing equipment: Use self-contained respiratory protective device in emergency situations.

Protection of hands:

Impervious gloves

Check protective gloves prior to each use for their proper condition.

The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

Penetration time of glove material (in minutes) Not determined

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form: Liquid
Color: Colorless
Odor: Characteristic
Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: -98 °C (-144 °F)
Boiling point/Boiling range: 64.7 °C (148 °F)
Sublimation temperature / start: Not determined

Flash point: 11 °C (52 °F)
Flammability (solid, gaseous) Not determined.
Ignition temperature: 385 °C (725 °F)
Decomposition temperature: Not determined
Auto igniting: Not determined.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures is possible.

Explosion limits:

Lower: 6.7 Vol %
Upper: 36 Vol %
Vapor pressure: Not determined
Density at 20 °C (68 °F): 0.89 g/cm³ (7.427 lbs/gal)
Relative density Not determined.
Vapor density Not determined.
Evaporation rate Not determined.
Solubility in / Miscibility with
Water: Fully miscible
Partition coefficient (n-octanol/water): Not determined.
Viscosity:
dynamic: Not determined.
kinematic: Not determined.
Other information No further relevant information available.

10 Stability and reactivity

Reactivity No information known.

Chemical stability Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions No dangerous reactions known

Conditions to avoid No further relevant information available.

Incompatible materials:

Oxidizing agents

Acid chlorides

Acid anhydrides

Alkali metals

No information known.

Hazardous decomposition products: Carbon monoxide and carbon dioxide

Product name: **Methanol-d**

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11 Toxicological information

Information on toxicological effects

Acute toxicity:

Fatal if inhaled.

Fatal in contact with skin.

Fatal if swallowed.

Danger through skin absorption.

LD/LC50 values that are relevant for classification: No data

Skin irritation or corrosion: Irritant to skin and mucous membranes.

Eye irritation or corrosion: Irritating effect.

Sensitization: No sensitizing effects known.

Germ cell mutagenicity: No effects known.

Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

Reproductive toxicity: No effects known.

Specific target organ system toxicity - repeated exposure: No effects known.

Specific target organ system toxicity - single exposure: Causes damage to the eyes and the brain. Route of exposure: Oral and Inhalative, Dermal.

Aspiration hazard: No effects known.

Subacute to chronic toxicity:

Symptoms of methanol overexposure may include intoxication, headache, drowsiness, nausea, vomiting, blurred vision, blindness, coma and death. It is a defatting agent and can cause skin and eye irritation. Absorption through the skin is possible. Chronic exposure may cause liver and eye injury.

Subacute to chronic toxicity: No effects known.

Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

Do not allow product to reach ground water, water course or sewage system.

Do not allow material to be released to the environment without proper governmental permits.

Danger to drinking water if even small quantities leak into the ground.

Avoid transfer into the environment.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods

Recommendation Consult state, local or national regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

UN-Number

DOT, IMDG, IATA

UN1230

UN proper shipping name

DOT

IMDG, IATA

Methanol

METHANOL

Transport hazard class(es)

DOT



Class

Label

Class

Label

IMDG, IATA

3 Flammable liquids.

3

3 (FT1) Flammable liquids

3+6.1



Class

Label

3 Flammable liquids.

3+6.1

Packing group

DOT, IMDG, IATA

II

Environmental hazards:

Not applicable.

Special precautions for user

Warning: Flammable liquids

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information:

DOT

Marine Pollutant (DOT):

No

UN "Model Regulation":

UN1230, Methanol, 3 (6.1), II

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

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USA

Product name: Methanol-d

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Hazard pictograms



GHS02 GHS06 GHS08

Signal word *Danger*

Hazard statements

H225 *Highly flammable liquid and vapor.*
H300+H310+H330 *Fatal if swallowed, in contact with skin or if inhaled.*
H370 *Causes damage to the eyes and the brain. Route of exposure: Oral and Inhalative, Dermal.*

Precautionary statements

P210 *Keep away from heat/sparks/open flames/hot surfaces. No smoking.*
P301+P310 *IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...*
P303+P361+P353 *If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*
P320 *Specific treatment is urgent (see on this label).*
P361 *Take off immediately all contaminated clothing.*
P405 *Store locked up.*
P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

SARA Section 313 (specific toxic chemical listings) Substance is not listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer Substance is not listed.

Prop 65 - Developmental toxicity Substance is not listed.

Prop 65 - Developmental toxicity, female Substance is not listed.

Prop 65 - Developmental toxicity, male Substance is not listed.

Information about limitation of use:

For use only by technically qualified individuals.

This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.

Other regulations, limitations and prohibitive regulations

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing SDS: Global Marketing Department

Date of preparation / last revision 11/23/2015 / -

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

vPvB: very Persistent and very Bioaccumulative

ACGIH: American Conference of Governmental Industrial Hygienists (USA)

OSHA: Occupational Safety and Health Administration (USA)

NTP: National Toxicology Program (USA)

IARC: International Agency for Research on Cancer

EPA: Environmental Protection Agency (USA)