

METHYLDIETHANOLAMINE

Version	Revision Date:	SDS Number:	Date of last issue: 11/04/2015
1.1	08/07/2017	400001019919	Date of first issue: 11/04/2015

SECTION 1. IDENTIFICATION

Product name : METHYLDIETHANOLAMINE

Manufacturer or supplier's details

Company name of supplier : Silver Fern Chemical, Inc.
Address : 121 W. De La Guerra Street, Suite B
Santa Barbara, CA 93101 USA

Telephone : 1-866-282-3384
Website : www.silverfernchemical.com
Email : info@silverfernchemical.com

Emergency telephone number : Infotrac: +1-800-535-5053
Outside USA & Canada +1-352-323-3500

Recommended use of the chemical and restrictions on use

Recommended use : Intermediate

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with 29 CFR 1910.1200**

Eye irritation : Category 2A

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
Storage:
Not available
Disposal:
Not available

Other hazards

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None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Methyldiethanolamine	105-59-9	90 - 100

The specific chemical identity and/or exact percentage (concentration) of composition may be withheld as a trade secret.

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Induce vomiting immediately and call a physician.
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : None known.
- Notes to physician : No information available.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: No hazardous combustion products are known
Specific extinguishing methods	: No data is available on the product itself.
Further information	: Standard procedure for chemical fires.
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment.
Environmental precautions	: Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Neutralise with acid. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: Normal measures for preventive fire protection.
Advice on safe handling	: Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	: Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.
Materials to avoid	: Acids Oxidizing agents Isocyanates
Further information on	: No decomposition if stored and applied as directed.

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storage stability

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended Filter type:
P2 filter

Hand protection
Material : butyl-rubber
Material : Chloroprene
Material : Nitrile rubber
Break through time : 4 - 8 h

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Colour : colourless
Odour : ammoniacal
Odour Threshold : No data available
pH : 11.5 (50 °C)
Concentration: 100 g/l

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Melting point	: -21.3 °C
Freezing point	: -21 °C
Boiling point/boiling range	: 243.3 °C (1,013 hPa)
Flash point	: 130 - 150 °C Method: Pensky-Martens closed cup
Evaporation rate	: No data available
Flammability (solid, gas)	: No data is available on the product itself.
Flammability (liquids)	: No data is available on the product itself.
Upper explosion limit / Upper flammability limit	: 8.8 %(V)
Lower explosion limit / Lower flammability limit	: 1.4 %(V)
Vapour pressure	: 0.0027 hPa (25 °C)
Relative vapour density	: 4
Relative density	: 1.04
Density	: 1.04 g/cm ³ (20 °C)
Solubility(ies)	
Water solubility	: > 1,000 g/l soluble in cold water (20 °C)
Solubility in other solvents	: not determined
Partition coefficient: n-octanol/water	: No data is available on the product itself.
Auto-ignition temperature	: 280 °C
Decomposition temperature	: 265 °C
Self-Accelerating decomposition temperature (SADT)	: No data is available on the product itself.
Viscosity	
Viscosity, dynamic	: 102 mPa.s (20 °C)
Explosive properties	: No data is available on the product itself.
Oxidizing properties	: No data is available on the product itself.
Molecular weight	: 119.2 g/mol
Particle size	: No data is available on the product itself.

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SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Exothermic reaction with acids. Stable under normal conditions. No decomposition if stored and applied as directed.
Conditions to avoid	: None known.
Incompatible materials	: Incompatible with strong acids and oxidizing agents.
Hazardous decomposition products	: Carbon dioxide (CO ₂) Carbon monoxide Nitrogen oxides (NO _x)

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : No data is available on the product itself.

Acute toxicity**Components:**

Methyldiethanolamine:

Acute oral toxicity : LD₅₀ (Rat, male and female): 4,680 mg/kg
Method: OECD Test Guideline 401

Components:

Methyldiethanolamine:

Acute inhalation toxicity : LC₅₀ (Rat, male and female): 6.5 mg/m³
Exposure time: 6 h
Test atmosphere: dust/mist

Components:

Methyldiethanolamine:

Acute dermal toxicity : LD₅₀ (Rabbit, male): 10,244 mg/kg
Method: OECD Test Guideline 402

LD₅₀ (Rabbit, female): 11,336 mg/kg
Method: OECD Test Guideline 402

Acute toxicity (other routes of administration) : No data available

Skin corrosion/irritation**Components:**

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Methyldiethanolamine:
Species: Rabbit
Result: Mild skin irritation

Serious eye damage/eye irritation**Components:**

Methyldiethanolamine:
Species: Rabbit
Result: Eye irritation

Respiratory or skin sensitisation**Components:**

Methyldiethanolamine:
Exposure routes: Skin
Species: Guinea pig
Result: Does not cause skin sensitisation.

Assessment: No data available

Germ cell mutagenicity**Components:**

Methyldiethanolamine:
Genotoxicity in vitro : Concentration: 100 - 10000 ug/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Components:

Methyldiethanolamine:
Genotoxicity in vivo : Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity

No data available

Carcinogenicity - Assessment : No data available

IARC

No component 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 component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Effects on fertility : No data available

Components:

Methyldiethanolamine:

Effects on foetal development : Species: Rat, male and female
Application Route: Dermal
General Toxicity Maternal: No observed adverse effect level:
250 mg/kg body weight
Result: No teratogenic effects

Reproductive toxicity - Assessment : No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Repeated dose toxicity**Components:**

Methyldiethanolamine:

Species: Rat, male and female
NOAEL: 750 mg/kg
Application Route: Skin contact
Exposure time: 2,160 h
Number of exposures: 5 d
Method: Subchronic toxicity

Repeated dose toxicity - Assessment : No data available

Aspiration toxicity

No data available

Experience with human exposure

General Information: No data available

Inhalation: No data available

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Skin contact: No data available

Eye contact: No data available

Ingestion: No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information**Product:**

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:**

Methyldiethanolamine:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 1,000 - 2,200 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: Fresh water
Method: DIN 38412

Components:

Methyldiethanolamine:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 233 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water

Components:

Methyldiethanolamine:

Toxicity to algae : ErC50 (Desmodesmus subspicatus (green algae)): 176 mg/l
Exposure time: 72 h
Test substance: Fresh water
Method: DIN 38412

M-Factor (Acute aquatic toxicity) : No data available

Toxicity to fish (Chronic) : No data available

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toxicity)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : No data available

M-Factor (Chronic aquatic toxicity) : No data available

Components:

Methyldiethanolamine:

Toxicity to microorganisms : EC50 (*Pseudomonas putida*): 413.8 mg/l
Exposure time: 17 h
Method: DIN 38 412 Part 8

Toxicity to soil dwelling organisms : No data available

Plant toxicity : No data available

Sediment toxicity : No data available

Toxicity to terrestrial organisms : No data available

Ecotoxicology Assessment
Acute aquatic toxicity : No data available

Chronic aquatic toxicity : No data available

Toxicity Data on Soil : No data available

Other organisms relevant to the environment : No data available

Persistence and degradability**Components:**

Methyldiethanolamine:

Biodegradability : Inoculum: activated sludge
Concentration: 41 mg/l
Result: Readily biodegradable.
Biodegradation: 96 %
Exposure time: 18 d
Method: OECD Test Guideline 301A

Biochemical Oxygen Demand (BOD) : No data available

Chemical Oxygen Demand (COD) : No data available

BOD/COD : No data available

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ThOD	: No data available
BOD/ThOD	: No data available
Dissolved organic carbon (DOC)	: No data available
Physico-chemical removability	: No data available
Stability in water - Product	: Method: No information available. GLP: No information available. Remarks: see user defined free text
Photodegradation	: No data available
Impact on Sewage Treatment	: No data available

Bioaccumulative potential**Components:**

Methyldiethanolamine:	
Bioaccumulation	: Bioconcentration factor (BCF): 3.16 Remarks: Does not bioaccumulate.

Components:

Methyldiethanolamine:	
Partition coefficient: n-octanol/water	: log Pow: -1.08 (25 °C) pH: 9.9 - 10.4

Mobility in soil

Mobility	: No data available
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Components:

Methyldiethanolamine:	
Distribution among environmental compartments	: Koc: 1
Stability in soil	: No data available

Other adverse effects

Environmental fate and pathways	: No data available
Results of PBT and vPvB assessment	: No data available
Endocrine disrupting potential	: No data available
Adsorbed organic bound halogens (AOX)	: No data available

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Hazardous to the ozone layer

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82
Protection of Stratospheric Ozone - CAA Section 602 Class I
Substances
Remarks: This product neither contains, nor was
manufactured with a Class I or Class II ODS as defined by the
U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A +
B).

Additional ecological : No data available
information - Product
Global warming potential : No data available
(GWP)

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with
chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**International Regulations****IATA**

Not regulated as dangerous goods

IMDG

Not regulated as dangerous goods

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations**DOT Classification**

Not regulated as dangerous goods

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know Act**

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SARA 311/312 Hazards : Serious eye damage or eye irritation

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

CH INV	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
AICS	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
TCSI	: On the inventory, or in compliance with the inventory
TSCA	: On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

TSCA - 5(a) Significant New Use Rule List of Chemicals

No substances are subject to a Significant New Use Rule.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No substances are subject to TSCA 12(b) export notification requirements.

SAFETY DATA SHEET



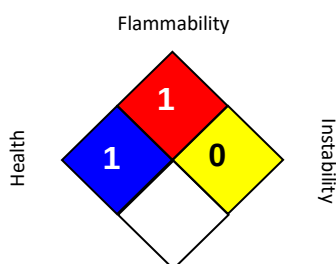
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SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS® IV:

HEALTH		2
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Revision Date : 08/07/2017

DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume damage or expense arising out of or in any way responsibility and expressly disclaim liability for loss, connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

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