



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
OSHA HCS2012

Revision date 13-Jun-2023

Revision Number 1

1. Identification

Product identifier

Product Name Methyl Trifluoroacetate

Other means of identification

Product Code(s) TRC-M331835-25G

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Laboratory use

Restrictions on use Not to be used for human or animal consumption

Details of the supplier of the safety data sheet

Supplier Address

VHG
LGC Standards
276 Abby Road
Manchester, NH 03103
UNITED STATES OF AMERICA

Tel : +1 (603) 622-7660
Fax : +1 (603) 622-5180
Email : lgcusa@lgcgroup.com

Web : lgcstandards.com

E-mail sds-request@lgcgroup.com

Emergency telephone number

Emergency Telephone

For Hazardous Materials or Dangerous Goods Incident
Spill, Leak, Fire Exposure, or Accident
Call CHEMTREC:
USA & Canada 1-800-424-9300
Rest of the world +1 703-741-5970

2. Hazard(s) identification

Classification



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
OSHA HCS2012

TRC-M331835-25G - Methyl Trifluoroacetate

Revision date 13-Jun-2023

Classified according to OSHA.

| | |
|-----------------------------------|-------------|
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2A |
| Flammable liquids | Category 2 |

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Danger

Hazard statements

Classified according to OSHA.

Causes skin irritation

Causes serious eye irritation

Highly flammable liquid and vapor



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container tightly closed

Ground/bond container and receiving equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Wear protective gloves/eye protection/face protection

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

If skin irritation occurs: Get medical advice/attention

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

Wash contaminated clothing before reuse

In case of fire: Use CO₂, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
OSHA HCS2012

TRC-M331835-25G - Methyl Trifluoroacetate

Revision date 13-Jun-2023

Other information

No information available.

3. Composition/information on ingredients

Substance

Formula $C_3H_3F_3O_2$

| Chemical name | CAS No | Weight-% | Trade secret |
|-------------------------|----------|----------|--------------|
| Methyl Trifluoroacetate | 431-47-0 | 100 | * |

4. First-aid measures

Description of first aid measures

| | |
|------------------------------------|--|
| General advice | Show this safety data sheet to the doctor in attendance. |
| Inhalation | Remove to fresh air. Get medical attention immediately if symptoms occur. |
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. |
| Skin contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists. |
| Ingestion | Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician. |
| Self-protection of the first aider | Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. |

Most important symptoms and effects, both acute and delayed

Symptoms May cause redness and tearing of the eyes. Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam.



SAFETY DATA SHEET

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OSHA HCS2012

TRC-M331835-25G - Methyl Trifluoroacetate

Revision date 13-Jun-2023

| | |
|--|---|
| Large Fire | CAUTION: Use of water spray when fighting fire may be inefficient. |
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. |
| Specific hazards arising from the chemical | Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| Explosion data | |
| Sensitivity to mechanical impact | None. |
| Sensitivity to static discharge | Yes. |
| Special protective equipment and precautions for fire-fighters | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. |

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

| | |
|----------------------|--|
| Personal precautions | Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. |
| Other information | Ventilate the area. Refer to protective measures listed in Sections 7 and 8. |

Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| Methods for containment | Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. |
| Methods for cleaning up | Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. |

7. Handling and storage

Precautions for safe handling

| | |
|-------------------------|--|
| Advice on safe handling | Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or |
|-------------------------|--|



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OSHA HCS2012

TRC-M331835-25G - Methyl Trifluoroacetate

Revision date 13-Jun-2023

explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Avoid contact with eyes. Wear safety glasses with side shields (or goggles). Tight sealing safety goggles.

Hand protection

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear suitable gloves. Impervious gloves.

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.



SAFETY DATA SHEET

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OSHA HCS2012

TRC-M331835-25G - Methyl Trifluoroacetate

Revision date 13-Jun-2023

| | |
|--|---|
| Environmental exposure controls | Do not allow into any sewer, on the ground or into any body of water. |
| General hygiene considerations | Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. |

9. Physical and chemical properties

Information on basic physical and chemical properties

| | |
|----------------|--------------------------|
| Physical state | Liquid |
| Appearance | Oily |
| Color | colorless |
| Odor | No information available |
| Odor threshold | No information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---|-------------------|-------------------------|
| pH | No data available | None known |
| Melting point / freezing point | No data available | None known |
| Initial boiling point and boiling range | No data available | None known |
| Flash point | No data available | None known |
| Evaporation rate | No data available | None known |
| Flammability | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Vapor pressure | No data available | None known |
| Relative vapor density | No data available | None known |
| Relative density | No data available | None known |
| Water solubility | No data available | None known |
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |

Other information

| | |
|----------------------|--------------------------|
| Explosive properties | No information available |
| Oxidizing properties | No information available |
| Softening point | No information available |
| Molecular weight | 128.05 |
| VOC content | No information available |
| Liquid Density | No information available |
| Bulk density | No information available |



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OSHA HCS2012

TRC-M331835-25G - Methyl Trifluoroacetate

Revision date 13-Jun-2023

10. Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | No information available. |
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | None under normal processing. |
| Conditions to avoid | Heat, flames and sparks. |
| Incompatible materials | Strong acids. Strong bases. Strong oxidizing agents. |
| Hazardous decomposition products | None known based on information supplied. |

11. Toxicological information

Information on likely routes of exposure

Product Information

| | |
|--------------|---|
| Inhalation | Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. |
| Eye contact | Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain. |
| Skin contact | Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components). |
| Ingestion | Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|----------|---|
| Symptoms | Redness. May cause redness and tearing of the eyes. |
|----------|---|

Acute toxicity

Numerical measures of toxicity

No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|---------------------------|--|
| Skin corrosion/irritation | Classification based on data available for ingredients. Causes skin irritation. May cause skin irritation. |
|---------------------------|--|



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TRC-M331835-25G - Methyl Trifluoroacetate

Revision date 13-Jun-2023

| | |
|-----------------------------------|--|
| Serious eye damage/eye irritation | Classification based on data available for ingredients. Causes serious eye irritation. |
| Respiratory or skin sensitization | No information available. |
| Germ cell mutagenicity | No information available. |
| Carcinogenicity | No information available. |
| Reproductive toxicity | No information available. |
| STOT - single exposure | No information available. |
| STOT - repeated exposure | No information available. |
| Aspiration hazard | No information available. |
| Other adverse effects | No information available. |
| Interactive effects | No information available. |

12. Ecological information

| | |
|-------------------------------|---|
| Ecotoxicity | The environmental impact of this product has not been fully investigated. |
| Persistence and degradability | No information available. |
| Bioaccumulation | There is no data for this product. |

Component Information

| Chemical name | Partition coefficient |
|-------------------------------------|-----------------------|
| Methyl Trifluoroacetate 431-47-0 | 0.6 |

| | |
|-----------------------|---------------------------|
| Other adverse effects | No information available. |
|-----------------------|---------------------------|



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TRC-M331835-25G - Methyl Trifluoroacetate

Revision date 13-Jun-2023

13. Disposal considerations

Disposal methods

Waste from residues/unused products

Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

14. Transport information

DOT

| | |
|---------------------------------|--|
| UN number or ID number | UN1993 |
| Extended proper shipping name | Flammable liquids, n.o.s. (Methyl Trifluoroacetate) |
| Transport hazard class(es) | 3 |
| Packing group | II |
| Special Provisions | IB2, T7, TP1, TP8, TP28 |
| DOT Marine Pollutant | NP |
| Description | UN1993, Flammable liquids, n.o.s. (Methyl Trifluoroacetate), 3, II |
| Emergency Response Guide Number | 128 |

TDG

| | |
|----------------------------|---|
| UN number or ID number | UN1993 |
| UN proper shipping name | Flammable liquid, n.o.s. (Methyl Trifluoroacetate) |
| Transport hazard class(es) | 3 |
| Packing group | II |
| Special Provisions | 16, 150 |
| Marine pollutant | NP |
| Description | UN1993, Flammable liquid, n.o.s. (Methyl Trifluoroacetate), 3, II |

MEX

| | |
|----------------------------|---|
| UN number or ID number | UN1993 |
| UN proper shipping name | Flammable liquid, n.o.s. (Methyl Trifluoroacetate) |
| Transport hazard class(es) | 3 |
| Packing group | II |
| Technical Name | Methyl Trifluoroacetate |
| Description | UN1993, Flammable liquid, n.o.s. (Methyl Trifluoroacetate), 3, II |
| Special Provisions | 274 |

IATA

| | |
|----------------------------|--|
| UN number or ID number | UN1993 |
| UN proper shipping name | Flammable liquid, n.o.s. (Methyl Trifluoroacetate) |
| Transport hazard class(es) | 3 |
| Packing group | II |
| Technical Name | Methyl Trifluoroacetate |



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TRC-M331835-25G - Methyl Trifluoroacetate

Revision date 13-Jun-2023

| | |
|---------------------------|---|
| Description | UN1993, Flammable liquid, n.o.s. (Methyl Trifluoroacetate), 3, II |
| Special Provisions | A3 |
| ERG Code | 3H |

| | |
|-----------------------------------|--|
| IMDG | Not regulated |
| UN number or ID number | UN1993 |
| UN proper shipping name | Flammable liquid, n.o.s. (Methyl Trifluoroacetate) |
| Transport hazard class(es) | 3 |
| Packing group | II |
| EmS-No | F-E, S-E |
| Special Provisions | 274 |
| Marine pollutant | NP |
| Description | UN1993, Flammable liquid, n.o.s., 3, II |

15. Regulatory information

International Inventories

TSCA Complies.

| Chemical name | CAS No | US TSCA Inventory listing | US TSCA inactive/active designation |
|-------------------------|----------|---------------------------|-------------------------------------|
| Methyl Trifluoroacetate | 431-47-0 | Present | Active |

| | |
|----------------------|---|
| DSL/NDSL | Contact supplier for inventory compliance status. |
| EINECS/ELINCS | Contact supplier for inventory compliance status. |
| ENCS | Contact supplier for inventory compliance status. |
| IECSC | Contact supplier for inventory compliance status. |
| KECL | Contact supplier for inventory compliance status. |
| PICCS | Contact supplier for inventory compliance status. |
| AICS | Contact supplier for inventory compliance status. |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any



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OSHA HCS2012

TRC-M331835-25G - Methyl Trifluoroacetate

Revision date 13-Jun-2023

chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

| | | | | |
|-------------|-------------------------|-----------------------|---------------------------|------------------------------|
| NFPA | Health hazards 2 | Flammability 0 | Instability 0 | Special hazards - |
| HMIS | Health hazards 2 | Flammability 0 | Physical hazards 0 | Personal protection X |

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: Exposure controls/personal protection

| | | | |
|---------|-----------------------------|------|----------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | * | Skin designation |

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGl(s))



SAFETY DATA SHEET

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OSHA HCS2012

TRC-M331835-25G - Methyl Trifluoroacetate

Revision date 13-Jun-2023

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 13-Jun-2023
Revision Note No information available.

Disclaimer

The information in this Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, we cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. We warrant that the chemical meets the specifications set forth on the label. We (LGC/VHG/ARMI) disclaim any other warranties, expressed or implied with regard to the product supplied hereunder, its merchantability or its fitness for a particular purpose. The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. Read all precautionary information.

End of Safety Data Sheet