

Safety Data Sheet

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Classification according to Regulation (EC) No. 1272/2008 [CLP]

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product code TS-48910
Product name MSTFA (N-Methyl-N-trimethylsilyltrifluoroacetamide)
Chemical Name Not Applicable
REACH registration number No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

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

Relevant identified uses For research use only
Use Description Code SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen), PROC15 - Use as laboratory reagent, PC21 - Laboratory chemicals, SU24 - Scientific research and development
Uses advised against Not for consumer use.

Details of the supplier of the safety data sheet

Manufacturer / Supplier

LIFE TECHNOLOGIES EUROPE BV
KWARTSWEG 2
2665 NN BLEISWIJK
NETHERLANDS
31-(0)180 392 400
Email: MSDS@lifetech.com

Thermo Fisher Scientific
Pierce Biotechnology
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1.800.874.3723

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+44 (0)141 814 6100

24 hour Emergency Response for Hazardous Materials [or Dangerous Goods] Incident. Spill, Leak, Fire, Exposure, or Accident. Call CHEMTREC Within the USA + Canada: 1-800-424-9300 and 1-703-527-3887
Outside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

CHEMTREC Ireland (Dublin) +(353)-19014670 (Greeting Language: English and Irish)
CHEMTREC UK (London) +(44)-870-8200418 (Greeting Language: English)

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Physical hazards

| | |
|-------------------|------------|
| Flammable liquids | Category 3 |
|-------------------|------------|

Health hazards

| | |
|--|------------|
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2 |
| Specific target organ toxicity - Single exposure | Category 3 |

Environmental hazards

Not Hazardous

Additional information

No information available

Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms



Signal Word

Warning

Hazard Statements

H226 - Flammable liquid and vapour
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

Precautionary Statements

Prevention

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P264 - Wash hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area

Response

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

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present and easy to do. Continue rinsing

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P403 + P235 - Store in a well-ventilated place. Keep cool

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Other hazards

Not Applicable

SECTION 3: Composition/information on ingredients

| Chemical Name | CAS No | EINECS-No. | Weight-% | REACH registration number | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|------------|------------|----------|---------------------------|--|
| N-methyl-N-(trimethylsilyl)trifluoroacetamide | 24589-78-4 | - | 98-100 | - | Flamm. Liq.3 - H226 Skin Irri.2- H315 Eye Irri.2 - H319 STOT SE.3- H335 |

SECTION 4: First aid measures

Description of first aid measures

Skin contact

Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Immediate medical attention is required.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Ingestion

Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Get medical attention if symptoms occur.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a doctor.

Notes to Physician

Treat symptomatically.

Most important symptoms and effects, both acute and delayed

H226 - Flammable liquid and vapour H319 - Causes serious eye irritation H315 - Causes skin irritation H335 - May cause respiratory irritation

Indication of any immediate medical attention and special treatment needed

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. If skin irritation occurs: Get medical advice/ attention.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media

No information available.

Special hazards arising from the substance or mixture

None known

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective suit.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Avoid contact with skin, eyes or clothing

Use personal protection equipment

See section 8 for more information

Environmental precautions

No special environmental precautions required. Avoid discharge into drains and waterways whenever possible.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling

Always wear recommended Personal Protective Equipment. See section 8 for more information. Do not get in eyes, on skin, or on clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use adequate ventilation and/or wear appropriate respirator.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers. Store in accordance with local regulations.

Storage Conditions

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F).

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

| Chemical Name | EU OEL (TWA) | EU OEL (STEL) | EU Skin Notation |
|---|---|-----------------------|------------------|
| N-methyl-N-(trimethylsilyl)trifluoroacetamide 24589-78-4 | None | None | None |
| Chemical Name | Austria | Belgium (TWA) | Czech Republic |
| N-methyl-N-(trimethylsilyl)trifluoroacetamide 24589-78-4 | None | None | None |
| Chemical Name | Denmark (TWA) | Finland OEL (TWA) | France OEL (VME) |
| N-methyl-N-(trimethylsilyl)trifluoroacetamide 24589-78-4 | None | None | None |
| Chemical Name | Germany OEL (TWA) | Ireland (TWA) | Italy OEL (TWA) |
| N-methyl-N-(trimethylsilyl)trifluoroacetamide 24589-78-4 | None | None | None |
| Chemical Name | Lithuania OEL (TWA) | Netherlands OEL (MAC) | Norway |
| N-methyl-N-(trimethylsilyl)trifluoroacetamide 24589-78-4 | None | None | None |
| Chemical Name | Poland | Portugal | Spain OEL (TWA) |
| N-methyl-N-(trimethylsilyl)trifluoroacetamide 24589-78-4 | None | None | None |
| Chemical Name | Sweden - Occupational Exposure Limits - TLVs (LLVs) | Switzerland | United Kingdom |
| N-methyl-N-(trimethylsilyl)trifluoroacetamide 24589-78-4 | None | None | None |

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Exposure controls**Personal protection equipment**

Respiratory protection In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

Hand protection Wear suitable gloves Glove material: Compatible chemical-resistant gloves.

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| | |
|---|--|
| Appearance | liquid |
| Colour | Clear, colourless |
| Odour | No data |
| Odour Threshold | No data |
| Molecular Weight | No data |
| Melting point / melting range | °C 98-100 °F 208.4 to 212 |
| Boiling point / boiling range | °C 130-132 °F 266-269.6 |
| Flash point | °C 26 °F 78.8 |
| Autoignition Temperature | °C No data °F No data |
| Decomposition temperature | °C No data °F No data |
| Evaporation rate | No data |
| Flammability (solid, gas) | Highly flammable in the presence of open flames, sparks and static discharge and heat. Vapor may travel a considerable distance to source of ignition and flash back. Emits toxic fumes under fire conditions. |
| Upper explosion limit | No data |
| Lower explosion limit | 1.2 |
| Vapour Pressure | 1.2 kPa (8.8 mm Hg) [room temperature] |
| Vapour density | 6.88 [Air = 1] |
| Relative density | 1.075 |
| Specific gravity | No data |
| Solubility | Insoluble in water |
| Partition coefficient: n-octanol/water | No data |
| Viscosity | No data |
| Explosive properties | No data |
| Oxidising properties | No data |
| Other information | No data. |

SECTION 10: Stability and reactivity

| | |
|---|--|
| Reactivity | None known. |
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | Hazardous reaction has not been reported. |
| Conditions to avoid | Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. |
| Incompatible materials | No dangerous reaction known under conditions of normal use. |
| Hazardous decomposition products | No known hazardous decomposition products. |

SECTION 11: Toxicological information

Information on toxicological effects

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|-------------------|-------------------|-------------------|
| N-methyl-N-(trimethylsilyl)trifluoroacetamide | No data available | No data available | No data available |

Principal Routes of Exposure

| | |
|--|---|
| Skin corrosion/irritation | Skin irritation |
| Serious eye damage/irritation | Irritating to eyes |
| Respiratory or skin sensitisation | Data are conclusive but insufficient for classification |
| Specific target organ toxicity (STOT) – single exposure | May cause respiratory irritation |
| Specific target organ toxicity (STOT) – repeated exposure | Data are conclusive but insufficient for classification |
| Carcinogenicity | Data are conclusive but insufficient for classification |
| Germ cell mutagenicity | Data are conclusive but insufficient for classification |
| Reproductive Toxicity | Data are conclusive but insufficient for classification |
| Aspiration Hazard | Data are conclusive but insufficient for classification |

SECTION 12: Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

| Chemical Name | Toxicity to algae | Toxicity to daphnia and other aquatic invertebrates | Toxicity to fish | Microtox Data | log Pow |
|---|-------------------|---|-------------------|-------------------|-------------------|
| N-methyl-N-(trimethylsilyl)trifluoroacetamide | No data available | No data available | No data available | No data available | No data available |

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects

No information available.

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

This product is subject to the de minimis exceptions for dangerous goods / hazardous materials in accordance with the following regulations: IATA 2.6.10, ADR 3.5.1.4, and U.S. DOT 49 CFR 173.4b.

| | |
|-----------------------------------|---|
| UN number | 1993 |
| UN proper shipping name | Flammable liquid, n.o.s. (N-Methyl-N-Trimethylsilyltrifluoroacetamide) |
| Transport hazard class(es) | 3 |
| Packing group | III |

Environmental hazards

Not Applicable

Special precautions for user

Not Applicable

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

Not Applicable.

SECTION 15: Regulatory information

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

Substances of Very High Concern

None.

Substance subject to authorisation per REACH Annex XIV

None

Restricted substances under EC 1907/2006, Annex XVII

None.

Substances listed under Annex I of Regulation (EC) No 689/2008

None.

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Restricted substances under Annex V of Regulation (EC) No 689/2008

None.

Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

None.

German Water hazard classes (Wassergefährdungsklassen)

Not classified.

Other International Inventories

| Chemical Name | EINECS (European Union) | ELINCS (European List of Notified Chemical Substances) | ENCS (Japan) | PICCS (Philippines) |
|---|-------------------------|--|--------------|---------------------|
| N-methyl-N-(trimethylsilyl)trifluoroacetamide | Listed | - | - | - |

| Chemical Name | AICS (Australia) | South Korea (KECL) | Canada (DSL) | NDSL |
|---|------------------|--------------------|--------------|--------|
| N-methyl-N-(trimethylsilyl)trifluoroacetamide | Listed | - | - | Listed |

Chemical safety assessment

No Chemical safety assessment has been carried out.

SECTION 16: Other information

Reason for revision Update according to Commission Regulation (EU) No 830/2015
Revision number 3
Revision date 30-Jun-2020

References

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>
- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

| | | |
|--|------------|--------------------|
| Flammable liquids | Category 3 | Calculation method |
| Skin corrosion/irritation | Category 2 | Calculation method |
| Serious eye damage/eye irritation | Category 2 | Calculation method |
| Specific target organ toxicity - Single exposure | Category 3 | Calculation method |

Abbreviations and acronyms

TWA - Time-Weighted Average
OELs - Occupational Exposure Limits
STEL - Short Term Exposure Limit
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
KECL - Korean Existing and Evaluated Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
CEPA - Canadian Environmental Protection Act
EPA - Environmental Protection Agency
OSHA - Occupational Safety and Health Administration of the US Department of Labour
IATA - International Air Transport Association
DOT - Department of Transportation
IMDG - International Maritime Dangerous Goods
ACGIH - American Conference of Governmental Industrial Hygienists
NIOSH - National Institute for Occupational Safety and Health
AIHA - American Industrial Hygiene Association
HMIS - Department of Defense Hazardous Materials Information System
NTP - National Toxicology Program
IARC - International Agency for Research on Cancer

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

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