1 Identification

Product identifier

Product name: Trimethylsilyl azide

Stock number: 89029
CAS Number: 4648-54-8
EC number: 225-078-5

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. 3 H301 Toxic if swallowed.
Acute Tox. 3 H311 Toxic in contact with skin.
Acute Tox. 2 H330 Fatal if inhaled.

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

Signal word Danger

Hazard statements
H225 Highly flammable liquid and vapor.
H301+H311 Toxic if swallowed or in contact with skin.
H330 Fatal if inhaled.

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+P333 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).
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
F - Dangerously reactive material

Classification system
HMIS ratings (scale 0-4)

Health (acute effects) = 3
Flammability = 3
Physical Hazard = 2

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances
CAS# Description:
4648-54-8 Trimethylsilyl azide
Concentration: ≤100%
Identification number(s):
EC number: 225-078-5

(Contd. on page 2)
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.

**Information for doctor**

**Most important symptoms and effects, both acute and delayed**

Toxic in contact with skin.
Fatal if inhaled.
Toxic if swallowed.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents**
In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.

**For safety reasons unsuitable extinguishing agents**

Water

**Special hazards arising from the substance or mixture**
If this product is involved in a fire, the following can be released:
Carbon monoxide and carbon dioxide
Silicon oxide
Nitrogen oxides (NOx)

**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**

- Mount respiratory protective device.
- Wear protective equipment. Keep unprotected persons away.
- Ensure adequate ventilation.
- Keep away from ignition sources.

**Environmental precautions:**
Do not allow product to reach sewage system or any water course.

**Methods and material for containment and cleaning up:**
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.
Do not flush with water or aqueous cleansing agents.

**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.

**Protective Action Criteria for Chemicals**

- **PAC-1:** Substance is not listed.
- **PAC-2:** Substance is not listed.
- **PAC-3:** Substance is not listed.

7 Handling and storage

**Handling**

**Precautions for safe handling**
Handle under dry protective gas.
Keep container tightly sealed.
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:**
Refrigerate.

**Information about storage in one common storage facility:**
Protect from heat.
Store away from water/moisture.
Store away from oxidizing agents.
Store away from reducing agents.

**Further information about storage conditions:**
Store under dry inert gas.
This product is moisture sensitive.
Keep container tightly sealed.
Protect from humidity and water.
Refrigerate.

**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:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**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.
- Do not inhale dust / smoke / mist.
- Avoid contact with the eyes and skin.
- Maintain an ergonomically appropriate working environment.

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

**Recommended filter device for short term use:** Use a respirator with multi-purpose combination (US) or type ABEK (EN 14387) as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).

**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.

**Eye protection:** Safety glasses with side shields / NIOSH (US) or EN 166 (EU)

**Body protection:** Protective work clothing.

### Physical and chemical properties

#### Information on basic physical and chemical properties

**General Information**

- **Appearance:** Liquid
- **Odor:** Not determined
- **Odor threshold:** Not determined
- **pH-value:** Not determined

**Change in condition**

- **Melting point/Melting range:** -95 °C (-139 °F)
- **Boiling point/Boiling range:** 95-99 °C (203-210 °F)
- **Sublimation temperature / start:** Not determined

**Flash point:**

- **Solid/gaseous:** 6 °C (43 °F)
- **Flammability:** Not determined

**Ignition temperature:**

- **>300 °C (>572 °F)
- **Auto igniting:** Not determined

**Decomposition temperature:**

- **Not determined
- **Danger of explosion:**

**Explosion limits:**

- **Lower:** Not determined
- **Upper:** Not determined

**Vapor pressure:**

- **Density at 20 °C (68 °F):** 0.872 g/cm³ (7.277 lbs/gal)

**Relative density**

- **Not determined
- **Vapor density:** Not determined

**Evaporation rate**

- **Not determined
- **Solubility in / Miscibility with Water:** Not determined

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

- **Not determined
- **Viscosity:**

**Dynamic:**

- **Not determined
- **Kinematic:** Not determined

**Other information:** No further relevant information available.

### 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**

- Reacts with strong oxidizing agents
- Contact with water releases toxic gases
- Contact with acids releases toxic gases

**Conditions to avoid**

No further relevant information available.

**Incompatible materials:**

- Oxidizing agents
- Reducing agents
- Water/moisture
- Heat

**Hazardous decomposition products:**

- Carbon monoxide and carbon dioxide
- Silicon oxide
- Nitrogen oxides

### Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

- Fatal if inhaled.
- Toxic in contact with skin.
- Toxic if swallowed.
- Danger through skin absorption.
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.
Moisture and degradability: No further relevant information available.
Ecotoxicological effects:
Remark: Very toxic for aquatic organisms.
Additional ecological information:
General notes:
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
May cause long-lasting harmful effects to aquatic life.
Avoid transfer into the environment.
Very toxic for aquatic organisms.
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.

14 Transport information

UN Number: UN1992

UN Proper shipping name
DOT: Flammable liquids, toxic, n.o.s. (Trimethylsilyl azide)
ADR: 1992 Flammable liquids, toxic, n.o.s. (Trimethylsilyl azide)
IMDG, IATA: FLAMMABLE LIQUID, TOXIC, N.O.S. (Trimethylsilyl azide)

Transport hazard class(es)

DOT

Class 3: Flammable liquids
Label: 3, 6.1

ADR

Class 3: Flammable liquids
Label: 3+6.1

IMDG

Class 3: Flammable liquids
Label: 3/6.1

IATA

Class 3: Flammable liquids
Label: 3 (6.1)

Packing group
DOT, ADR, IMDG, IATA
II

Environmental hazards:
Not applicable.

Special precautions for user

EMS Number: Warning: Flammable liquids
F-E-S-D

Stowage Category: B

Stowage Code: SW2 Clear of living quarters.
Product name: Trimethylsilyl azide

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

Transport/Additional information:

**DOT**
- Quantity limitations: On passenger aircraft/rail: 1 L
- On cargo aircraft only: 60 L

**IMDG**

**Signal word** Danger

**Hazard statements**
- H225 Highly flammable liquid and vapor.
- H301+H311 Toxic if swallowed or in contact with skin.
- H330 Fatal if inhaled.

**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.
- 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.
- All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL).
- 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.

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

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 Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.