

**Safety data sheet  
according to 1907/2006/EC, Article 31**

revised on: 24.11.2023

Version number 3

Creation Date: 14.11.2017

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name:** N,O-Bis(trimethylsilyl)-trifluoroacetamide**Article number:** 769**CAS Number:**

25561-30-2

**EC number:**

247-103-2

**Registration number**

A registration number for this substance is not available because the substance or its use is exempted from registration under Article 2 UK REACH Regulation (EC) No 1907/2006, the annual tonnage does not require registration or registration is foreseen for a later date.

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

The product is not intended for use by consumers

For professional users only

**Life cycle stages**

F Formulation or re-packing

IS Use at industrial Sites

**Sector of Use**

SU9 Manufacture of fine chemicals

SU24 Scientific research and development

**Product category**

PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents

PC21 Laboratory chemicals

PC29 Pharmaceuticals

PC40 Extraction agents

**Process category**

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC4 Chemical production where opportunity for exposure arises

PROC5 Mixing or blending in batch processes

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC15 Use as laboratory reagent

**Environmental release category**

ERC1 Manufacture of the substance

ERC2 Formulation into mixture

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

ERC6a Use of intermediate

**Application of the substance / the mixture**

Chemical analytics

Laboratory chemical

Commercial use

**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Th. Geyer GmbH & Co. KG

Dornierstr. 4 – 6

D-71272 Renningen

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**Trade name: N,O-Bis(trimethylsilyl)-trifluoroacetamide**

(Contd. of page 1)

Tel.: +49(0)7159-1637-0, Fax:+49 (0)7159/18417

www.thgeyer.de

sicherheitsdatenblaetter@thgeyer.de

· **Further information obtainable from:** Product management department

· **1.4 Emergency telephone number:**

National Poisons Information Service

City Hospital

Dudley Road

Birmingham B18 7QH

Tel.:Emergency: (00 44) 87 06 00 62 66

Members of the public seeking specific information on poisons should contact:

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

## SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the GB CLP regulation.

· **Hazard pictograms**



GHS02 GHS05

· **Signal word** Danger

· **Hazard statements**

H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

· **Precautionary statements**

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.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

(Contd. on page 3)

E

# Safety data sheet

## according to 1907/2006/EC, Article 31

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Version number 3

Creation Date: 14.11.2017

**Trade name: N,O-Bis(trimethylsilyl)-trifluoroacetamide**

(Contd. of page 2)

· **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.1 Substances**
- **CAS No. Description**  
CAS: 25561-30-2 N,O-Bis(trimethylsilyl)-trifluoroacetamide
- **Identification number(s)**
- **EC number:** 247-103-2

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**  
First aider needs to protect himself.  
Immediately remove any clothing soiled by the product.
- **After inhalation:**  
Supply fresh air.  
Seek medical treatment in case of complaints.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Protect unharmed eye.  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; call for medical help immediately.  
Place a vomiting person lying on their back in the recovering position.
- **Information for doctor:** Please observe safety data sheet/label.
- **4.2 Most important symptoms and effects, both acute and delayed** Irritation and corrosivity
- **Hazards**  
Risk of eye damage.  
Danger of gastric perforation.  
Risk of oesophageal perforation.
- **4.3 Indication of any immediate medical attention and special treatment needed** Symptomatic treatment.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet.
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.  
In case of fire, the following can be released:  
Nitrogen oxides (NO<sub>x</sub>)  
Hydrogen fluoride (HF)  
Carbon oxides (CO, CO<sub>2</sub>)
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear fully protective suit.  
Wear self-contained respiratory protective device.  
Do not inhale explosion gases or combustion gases.

(Contd. on page 4)

E

# Safety data sheet

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Version number 3

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**Trade name: N,O-Bis(trimethylsilyl)-trifluoroacetamide**

(Contd. of page 3)

**Additional information**

- Cool endangered receptacles with water spray.
- Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
- Safely prevent extinguishing water from entering groundwater or surface water.

### SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

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

**6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water.**

**6.3 Methods and material for containment and cleaning up:**

- Cover the sewerage system.
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Ensure adequate ventilation.
- Use neutralising agent.
- Dispose contaminated material as waste according to section 13.
- Dispose of the material collected according to regulations.

**6.4 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.

### SECTION 7: Handling and storage

**7.1 Precautions for safe handling**

- Pneumatic conveyance only with nitrogen.
- Store in cool, dry place in tightly closed receptacles.
- Decant and handle the product in dust-proof units.
- When diluting always pour product into water and not vice versa.

**Information about fire - and explosion protection:**

- Keep ignition sources away - Do not smoke.
- Protect against electrostatic charges.

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage:**

**Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.

**Information about storage in one common storage facility:** See also 10/5

**Further information about storage conditions:**

- Keep container tightly sealed.
- Protect from heat and direct sunlight.
- Store in cool, dry conditions in well sealed receptacles.

**Storage class: 3**

**7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**Ingredients with limit values that require monitoring at the workplace:** Not required.

**Additional information:** The lists valid during the making were used as basis.

**8.2 Exposure controls**

**Appropriate engineering controls** No further data; see section 7.

(Contd. on page 5)

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 24.11.2023

Version number 3

Creation Date: 14.11.2017

**Trade name: N,O-Bis(trimethylsilyl)-trifluoroacetamide**

(Contd. of page 4)

- **Individual protection measures, such as personal protective equipment**

- **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing

Avoid contact with the eyes and skin.

Keep away from foodstuffs, beverages and feed.

The usual precautionary measures are to be adhered to when handling chemicals.

- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. If air-purifying respiratory protection is required according to the risk assessment, wear a respirator with full-face mask with combination filter (US) or with filter type ABEK (EN 14387) filter cartridge. If the respirator is the only protective measure, an ambient air self-contained breathing apparatus with a full face mask must be worn. Respirators and components must be approved to appropriate government standards (for example, NIOSH (US) or CEN (EU)). Translated with www.DeepL.com/Translator (free version)

- **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Butyl rubber, BR

Material thickness: 0.5 mm

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Level 6 for applications > 480 min

- **Eye/face protection**



Tightly sealed goggles

- **Body protection:**



Protective work clothing (e. g. safety shoes EN ISO 20345, long-sleeved protective working garments).

## SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Physical state**

Fluid

- **Colour:**

Light yellow

- **Odour:**

Odourless

- **Melting point/freezing point:**

-10 °C

- **Boiling point or initial boiling point and boiling range**

45–50 °C

- **Flammability**

Flammable.

(Contd. on page 6)

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## according to 1907/2006/EC, Article 31

revised on: 24.11.2023

Version number 3

Creation Date: 14.11.2017

**Trade name: N,O-Bis(trimethylsilyl)-trifluoroacetamide**

(Contd. of page 5)

<b>· Lower and upper explosion limit</b>	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	23 °C
· Decomposition temperature:	Not determined.
· pH	Not determined.
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water:	Not determined.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C:	0.96 g/cm <sup>3</sup>
	Not determined.
· Relative density	Not determined.
· Vapour density	Not determined.

<b>· 9.2 Other information</b>	
· Appearance:	
· Form:	Fluid
<b>· Important information on protection of health and environment, and on safety.</b>	
· Ignition temperature:	Not determined.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Molecular weight	257.39 g/mol
· Change in condition	
· Evaporation rate	Not determined.

<b>· Information with regard to physical hazard classes</b>	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Flammable liquid and vapour.
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.

(Contd. on page 7)

E

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 24.11.2023

Version number 3

Creation Date: 14.11.2017

**Trade name: N,O-Bis(trimethylsilyl)-trifluoroacetamide**

(Contd. of page 6)

- **10.2 Chemical stability** Stable when stored and handled properly.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**  
Danger of receptacles bursting because of high vapour pressure when heated.
- **10.4 Conditions to avoid** Heat, flames and sparks.
- **10.5 Incompatible materials:** Avoid contact with other chemicals.
- **10.6 Hazardous decomposition products:** In case of fire: see section 5.

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Causes severe skin burns and eye damage.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties** Substance is not listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Must not reach sewage water or drainage ditch undiluted or unneutralised.  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**  
Observe local (country-specific) regulations and laws.  
This product and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Chemicals must be disposed of in accordance with the respective national regulations.

(Contd. on page 8)

# Safety data sheet

## according to 1907/2006/EC, Article 31

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Version number 3

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**Trade name: N,O-Bis(trimethylsilyl)-trifluoroacetamide**

(Contd. of page 7)

· <b>European waste catalogue</b>	
HP3	Flammable
HP8	Corrosive

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

· <b>14.1 UN number or ID number</b> · <b>ADR, IMDG, IATA</b>	UN2920
· <b>14.2 UN proper shipping name</b> · <b>ADR</b> · <b>IMDG, IATA</b>	2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (N,O-Bis(trimethylsilyl)-trifluoroacetamide) CORROSIVE LIQUID, FLAMMABLE, N.O.S. (N,O-Bis(trimethylsilyl)-trifluoroacetamide)
· <b>14.3 Transport hazard class(es)</b> · <b>ADR</b>	
 	
· <b>Class</b> · <b>Label</b>	8 (CF1) Corrosive substances. 8+3
· <b>IMDG</b>	
 	
· <b>Class</b> · <b>Label</b>	8 Corrosive substances. 8/3
· <b>IATA</b>	
 	
· <b>Class</b> · <b>Label</b>	8 Corrosive substances. 8 (3)
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Environmental hazards:</b>	Not applicable.
· <b>14.6 Special precautions for user</b> · <b>Hazard identification number (Kemler code):</b> · <b>EMS Number:</b> · <b>Stowage Category</b> · <b>Stowage Code</b>	Warning: Corrosive substances. 83 F-E,S-C C SW1 Protected from sources of heat. SW2 Clear of living quarters.

(Contd. on page 9)

E

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 24.11.2023

Version number 3

Creation Date: 14.11.2017

Trade name: N,O-Bis(trimethylsilyl)-trifluoroacetamide

(Contd. of page 8)

· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	D/E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (N,O-BIS(TRIMETHYLSILYL)-TRIFLUOROACETAMIDE), 8 (3), II

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Inventory of Hazardous Chemicals** Substance is not listed.
- **Poisons Act**
- **Regulated explosives precursors** Substance is not listed.
- **Regulated poisons** Substance is not listed.
- **Reportable explosives precursors** Substance is not listed.
- **Reportable poisons** Substance is not listed.
- **Labelling according to Regulation (EC) No 1272/2008**  
The substance is classified and labelled according to the GB CLP regulation.

- **Hazard pictograms**



GHS02 GHS05

- **Signal word** Danger
- **Hazard statements**  
H226 Flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.
- **Precautionary statements**  
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.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.

(Contd. on page 10)

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 24.11.2023

Version number 3

Creation Date: 14.11.2017

**Trade name: N,O-Bis(trimethylsilyl)-trifluoroacetamide**

(Contd. of page 9)

- **Seveso category P5c FLAMMABLE LIQUIDS**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**  
Substance is not listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**  
Substance is not listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS** Substance is not listed.
- **Regulation (EC) No 273/2004 on drug precursors** Substance is not listed.
- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**  
Substance is not listed.
- **National regulations:**
- **Information about limitation of use:**  
Employment restrictions concerning juveniles must be observed.  
Employment restrictions concerning pregnant and lactating women must be observed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.  
The application, use and processing of our products are beyond our control and are therefore exclusively your responsibility.

- **Department issuing SDS:** Product management
- **Contact:** Product management
- **Abbreviations and acronyms:**  
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 3: Flammable liquids – Category 3  
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- **\* Data compared to the previous version altered.**

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