

Material Safety Data Sheet

N,O-Bis(trimethylsilyl)acetamide

ACC# 67636

Section 1 - Chemical Product and Company Identification

MSDS Name: N,O-Bis(trimethylsilyl)acetamide

Catalog Numbers: AC156460000, AC156460010, AC156460250, AC156461000, NC9116320, XXAC15646-4L

Synonyms: Bis(trimethylsilyl)acetamide; BSA; Ethanimidic acid, N-(trimethylsilyl)-, trimethylsilyl ester; N-(Trimethylsilyl)acetimidic acid, trimethylsilyl ester.

Company Identification:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
10416-59-8	N,O-Bis(trimethylsilyl)acetamide	>90	233-892-7
13435-12-6	N-(Trimethylsilyl)acetamide	<10	236-565-7

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless to slight yellow solid or liquid. Flash Point: 42 deg C.

Danger! Causes eye and skin burns. Causes digestive and respiratory tract burns. Reacts violently with water. Flammable solid. May be harmful if swallowed. Material is a solid at room temperature that melts upon moderate heating into a combustible liquid with a flash point below 200°F(93.3°C).

Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes eye burns.

Skin: Causes skin burns.

Ingestion: Causes gastrointestinal tract burns. May be harmful if swallowed.

Inhalation: Causes chemical burns to the respiratory tract.

Chronic: Chronic exposure may cause effects similar to those of acute exposure. Mice dosed within the peritoneal cavity with 500 mg/kg developed tumors in the respiratory tract.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Water Reactive. Material will react with water and may release a flammable and/or toxic gas. Use water spray to keep fire-exposed containers cool. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. May be ignited by heat, sparks, and flame.

Extinguishing Media: Use dry sand or earth to smother fire. Use dry chemical. Do NOT get water inside containers.

Flash Point: 42 deg C (107.60 deg F)

Autoignition Temperature: Not available.

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 2; Instability: 2; Special Hazard: -W-

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Do not expose spill to water. A vapor suppressing foam may be used to reduce vapors.

Section 7 - Handling and Storage

Handling: Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Do not ingest or inhale. Do not allow contact with water. Discard contaminated shoes. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Keep away from heat, sparks and flame.

Storage: Keep away from heat, sparks, and flame. Keep container closed when not in use. Store in a tightly closed container. Keep away from water. Refrigerator/flammables. Store protected from moisture.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
N,O-Bis(trimethylsilyl)acetamide	none listed	6 mg/m3 TWA (listed under Silica, amorphous).3000 mg/m3 IDLH (listed under Silica, amorphous).	none listed
N-(Trimethylsilyl)acetamide	none listed	6 mg/m3 TWA (listed under Silica, amorphous).3000 mg/m3 IDLH (listed under Silica, amorphous).	none listed

OSHA Vacated PELs: N,O-Bis(trimethylsilyl)acetamide: No OSHA Vacated PELs are listed for this chemical. N-(Trimethylsilyl)acetamide: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear chemical splash goggles and face shield.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid or liquid

Appearance: colorless to slight yellow

Odor: characteristic odor

pH: Not available.

Vapor Pressure: 7.5 mm Hg @ 50 deg C

Vapor Density: Not available.

Evaporation Rate:Not available.

Viscosity: Not available.

Boiling Point: 71-73 deg C @ 35 mm Hg

Freezing/Melting Point:24 deg C

Decomposition Temperature:> 80 deg C

Solubility: decomposes

Specific Gravity/Density: .8200 g/cm3

Molecular Formula:C8H21NOSi2

Molecular Weight:203.43

Section 10 - Stability and Reactivity

Chemical Stability: Reacts with water.

Conditions to Avoid: Ignition sources, excess heat, exposure to moist air or water.

Incompatibilities with Other Materials: Water, strong oxidizing agents, acids.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide, acetonitrile, silicon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 10416-59-8: AK3000000

CAS# 13435-12-6: AD0250000

LD50/LC50:

Not available.
Not available.
Oral rat LD50 1580 mg/kg.

Carcinogenicity:

CAS# 10416-59-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 13435-12-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: No information found

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	FLAMMABLE SOLIDS, CORROSIVE, ORGANIC, N.O.S.	Flammable Solid, Corrosive, Organic, N.O (BIS-TRIMETHYLSILYL-ACETAMIDE)
Hazard Class:	4.1	4.1(3)
UN Number:	UN2925	UN2925
Packing Group:	II	II

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 10416-59-8 is listed on the TSCA inventory.

CAS# 13435-12-6 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 13435-12-6: fire.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 10416-59-8 can be found on the following state right to know lists: California, (listed as Silica, amorphous), New Jersey, (listed as Silica, amorphous), Pennsylvania, (listed as Silica, amorphous), Minnesota, (listed as Silica, amorphous), Massachusetts, (listed as Silica, amorphous).

CAS# 13435-12-6 can be found on the following state right to know lists: California, (listed as Silica, amorphous), New Jersey, (listed as Silica, amorphous), Pennsylvania, (listed as Silica, amorphous), Minnesota, (listed as Silica, amorphous), Massachusetts, (listed as Silica, amorphous).

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

C

Risk Phrases:

- R 10 Flammable.
- R 14 Reacts violently with water.
- R 22 Harmful if swallowed.
- R 34 Causes burns.

Safety Phrases:

- S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 30 Never add water to this product.
- S 36 Wear suitable protective clothing.
- S 7/8 Keep container tightly closed and dry.
- S 43A In case of fire, use dry chemical (never use water).

WGK (Water Danger/Protection)

- CAS# 10416-59-8: 1
- CAS# 13435-12-6: No information available.

Canada - DSL/NDSL

- CAS# 13435-12-6 is listed on Canada's DSL List.
- CAS# 10416-59-8 is listed on Canada's NDSL List.

Canada - WHMIS

This product has a WHMIS classification of B4, E.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

- CAS# 10416-59-8 (listed as Silica, amorphous) is listed on the Canadian Ingredient Disclosure List.
- CAS# 13435-12-6 (listed as Silica, amorphous) is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 8/18/1998

Revision #8 Date: 11/24/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.