



Name: *Bis(trimethylsilyl)acetamide*
 Code: 1-270501-200, 1-270502-200, 1-270503-200, 1-270504-200, 1-270505-200

..... **SAFETY DATA SHEET**

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

- 1.1 Product Identifier
 - Name BSA or Bis(trimethylsilyl)acetamide
 - Code 1-270501-200, 1-270502-200, 1-270503-200, 1-270504-200, 1-270505-200
- 1.2 Use of Substance/Mixture
 - Use Analytical Reagent—GC Derivatization; Silylation Reagent
- 1.3 Details of Manufacturer/Supplier
 - Company Regis Technologies, Inc.
 8210 N. Austin Avenue
 Morton Grove, IL 60053
 847-967-6000; 800-323-8144 (toll free)
 Email: cservice@registech.com
 www.registech.com
- 1.4 Emergency Telephone
 - INFOTRAC 800-535-5053 [U.S.A.]

SECTION 2 HAZARDS IDENTIFICATION

- 2.1 Classification of the Substance or Mixture
 - GHS Classification
 - Physical Hazards
 - Flammable Liquid Category 3 H226
 - Health Hazards
 - Acute toxicity (oral) Category 4 H302
 - Skin Corrosion / Irritation Category 1B H314
 - Serious Eye Damage / Irritation Category 1 H314

GHS Label Elements

Pictograms or hazard symbols



Signal Word Danger

Hazard Statement

- H226-Flammable liquid and vapor.
- H302-Harmful if swallowed.
- H314-Causes severe skin burns and eye damage.

Precautionary Statements

- [Prevention] P210- Keep away from heat and ignition sources.
 P280-Wear protective gloves/eye protection/face protection.
- [Response] P301+P330+P331-IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P303+P361+P353-IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- [Storage] P304+P340-IF INHALED: Remove victim to fresh air and keep at rest.
 P403+P235-Store in a well-ventilated place. Keep cool.
 P402+P404- Store in a dry place. Store in a closed container.

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[Disposal] P501-Dispose of contents/container in accordance with all applicable governmental and environmental regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Name BSA or Bis(trimethylsilyl)acetamide
 Synonyms *N,O*-Bis(trimethylsilyl)acetamide

Hazardous components

Component	Classification	Concentration
Bis(trimethylsilyl)acetamide CAS No. 10416-59-8 EC No. 2233-892-7	Flam. Liq. 3; Acute Tox 4; Skin Cor. 1B; Eye Dam. 1; H226, H302, H314	≥ 94%

For full test of the H-Statements mentioned in this Section, see Section 16.

SECTION 4 FIRST AID MEASURES

- 4.1 Description of first aid measures
 Potential health effects
 Eye Can cause eye burns, blindness, lacrimation, and destruction of mucous membranes.
 Skin Can cause severe skin burns.
 Inhalation Can be extremely destructive to mucous membranes and respiratory tract.
 Symptoms: coughing, shortness of breath, difficulty breathing, headache.
 Ingestion Can be very destructive if in contact with mucous membranes of the GI system.
 Harmful if swallowed.
 Symptoms See above route. Pre-existing conditions that may be aggravated: not determined.
 Physician note: Symptomatic and supportive care. There is no specific antidote.
- 4.2 Most important symptoms and effects, both acute and delayed.
 Severe irritation and burns. Lachrymation (excessive tearing) . Cough. Shortness of breath. Risk of blindness.
- 4.3 Indication of immediate medical attention and special treatment needed.
 No information available.

SECTION 5 FIRE-FIGHTING MEASURES

- 5.1 Suitable Extinguishing Media
 Carbon dioxide, dry chemical powder, dry sand, foam.
 Water may be effective for cooling, but may not effect extinguishment for large fires.
- 5.2 Specific hazards arising from the chemical.
 Flammable and corrosive liquid and vapor.
 Hydrolyzes readily on contact with water, but **not violently** so, to produce hexamethyldisiloxane (flammable) and acetamideacetamide--a potential cancer hazard.
 Vapors are heavier than air, may travel long distances along the ground to ignition sources and flash back.
 Formation of flammable and corrosive vapor-air mixtures possible.
 Emits toxic fumes under fire conditions: carbon oxides, silicon oxides, nitrogen oxides
- 5.3 Advice for fire-fighters
 Wear personal protective equipment for flammable organic/acid vapor conditions.

SECTION 6 ACCIDENTAL RELEASE MEASURES.....

- 6.1 Personal precautions, protective equipment, and emergency procedures
 For non-emergency personnel - Avoid material contact or inhalation of vapors or aerosols. Evacuate unnecessary personnel from area.

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For emergency responders – Protective equipment for flammable and acidic corrosive (organic/acid) liquid and vapor conditions. See Section 8.3

- 6.2 Environmental precautions
Prevent material from entering drains. Risk of formation of flammable and/or toxic by-products.
- 6.3 Methods of clean up
Evacuate unnecessary people from area. Isolate spilled material.
Use protective equipment for flammable and corrosive (organic/acid) liquid and vapor conditions.
Ventilate area. Eliminate all ignition sources. Use spark proof tools.
Keep away from water. Hydrolyzes readily on contact with water, but **not violently** so, to produce hexamethyldisiloxane (flammable) and acetamide—potential cancer hazard.
Contain and recover material when possible. Neutralize with sodium bicarbonate or other suitable neutralizing agent.
If neat or in solution, mix with sand or similar inert adsorbent material or spill pillow.
Sweep up, if not absorbed in pillow, seal in appropriate hazardous waste container, and hold for proper waste disposal.
Keep out of water supplies and sewers. Wash spill site after material pickup is complete.

SECTION 7 HANDLING AND STORAGE.....

- 7.1 Precautions for Safe Handling
Observe precautions in Section 2.
Wear suitable protective equipment to avoid contact with skin, eyes, or inhalation of organic/acid vapors or mists.
Handle under nitrogen. Avoid inhalation contact with vapor, mist or contact with liquid.
Protect from moisture. Vapor or liquid readily hydrolyzes on contact with water or moist air to form hexamethyldisiloxane (flammable) and acetamide—a potential cancer hazard.
Ground and bond containers or use inert gas purge when transferring or handling material.
Use spark proof tools and explosion proof equipment.
Empty containers retain product residue, (liquid/vapor), and can be dangerous.
- 7.2 Conditions for safe storage, including any incompatibilities
Store in tinted glass bottle under nitrogen, in a cool, dry place with adequate ventilation, in area suitable for flammables.
Protect from light and heat. May be stored refrigerated.
Store away from incompatible materials (See Section 10.).

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION.....

- 8.1 Control parameters
Exposure limits: No limits established.
Environmental Do not empty into drains.
- 8.2 Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice.
Local exhaust and mechanical ventilation required. Hood recommended. Fume scrubber. Safety shower and eye wash.
- 8.3 Personal protection
Eye/Face Tightly fitting safety goggles or safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US).
Hand Use compatible chemical-resistant gloves.
Respiratory If exposure to mist or vapors likely: NIOSH/MSHA (US) approved respirator for organic/acid vapor and mists.
Dermal (not hand) Protective Clothing (e.g., lab coat)
Hygiene Avoid inhalation, ingestion; contact with eyes, skin, and clothing; Avoid prolonged or repeated exposure. Remove contaminated clothing and discard contaminated footwear. Wash thoroughly after handling.

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SECTION 9 **PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Information on physical and chemical data

Chemical Formula	C ₈ H ₂₁ NO ₂ Si ₂	
Molecular Weight	203.43	
Form	liquid	
Appearance	clear, colorless	
Odor	faint floral or aromatic	
Odor threshold	Not available	
pH	Not available	
Melting/freezing point	-24°C (-125°F)	
Boiling point:	71-73°C (159-163°F) at 35mm Hg	
Flammability (liquid, solid)		
Flash Point	42-44°C (107.6-111.2°F)	Method: closed cup
Flammable limits (%v/v)	LEL (lower explosive limit)	Not available
	UEL (upper explosive limit)	Not available
Autoignition temperature	Not available	
Decomposition temperature	>80°C	
OSHA Flammability Class	II (Combustible)	
Evaporation Rate (BuAc = 1.0)	1.0	
Vapor pressure (mmHg)	1 mmHg at 20°C	
Vapor density (air=1):	1.03	
Relative density (g/cm ³)	0.823	
Water Solubility	slightly—decomposes	
Water reactive	yes--hydrolyzes	
Solubility (other)	Not available	
Partition coefficient: N-octanol/water	Not available	
Viscosity	Not available	
Refractive Index (n _D ²⁰):	1.4170	

SECTION 10 **STABILITY AND REACTIVITY**

10.1 Reactivity

Readily hydrolyzes in contact with water for form hexamethyldisiloxane (flammable) and acetamide. While BSA is reacts with water, it does **not** do so violently.

10.2 Chemical Stability

Stable if stored under nitrogen and protected from moisture.

10.3 Possibility of hazardous reactions

Flammable liquid and vapor—protect from heat and ignition sources.

10.4 Conditions to avoid

Avoid incompatibilities.
 Protect from static, heat, flames, sparks, and ignition sources.
 Keep out of water supplies and sewers.

10.5 Incompatible materials

Heat, light
 Strong acids, strong oxidizers, alkaline materials.
 Water, moisture, or humid air—readily hydrolyzes to hexamethyldisiloxane (flammable) and acetamide.

10.6 Hazardous decomposition products

Combustion carbon oxides, silicon oxides, nitrogen oxides
 Decomposition hexamethyldisiloxane (flammable), acetamide--a potential cancer hazard

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SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Toxicological Information	
Acute toxicity	Orl rat LD50 1580 mg/kg; Burns mucous membranes in mouth and throat. Possible harmful absorption.
Skin corrosion/irritation	Causes burns
Serious eye damage/irritation	Causes burns. Causes serious eye damage. Risk of blindness.
Respiratory irritation	Burns mucous membranes—Cough, Shortness of breath, Possible damage to respiratory tract.
Respiratory or skin sensitization	Not available
Germ cell mutagenicity	Not available
Carcinogenicity	Not available
IARC	Not available
NTP	Not available
Reproductive toxicity	Not available
STOT-single exposure	Not available
STOT-repeated exposure	Not available
Aspiration hazard	Not available
RTECS	AK3000000
11.2 Further Information	
Potential health effects	
Eye	Can cause eye burns, blindness, lacrimation, and destruction of mucous membranes.
Skin	Can cause severe skin burns.
Inhalation	Can be extremely destructive to mucous membranes and respiratory tract. Symptoms: coughing, shortness of breath, difficulty breathing, headache.
Ingestion	Can be very destructive if in contact with mucous membranes of the GI system. Harmful if swallowed.
Symptoms	See above route. Pre-existing conditions that may be aggravated: not determined.
Miscellaneous	No data available.

SECTION 12 ECOLOGICAL INFORMATION

12.1 Ecotoxicity	No data available for this product.
12.2 Persistence and degradability	No data available for this product.
12.3 Bioaccumulative potential	BCF = No data available for this product.
12.4 Motility in soil	Log Kow = No data available for this product.
12.5 Other adverse effects	Bis(trimethylsilyl)acetamide when in contact with water, readily hydrolyses to hexamethyldisiloxane (flammable) and acetamide (potential cancer hazard). Do not empty into drains or water courses.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Disposal methods	
U. S. EPA Waste Codes	D001, D002
Waste Characterization (per U. S. regulations)	RCRA Hazard Class (40CFR 261): Ignitable, Corrosive Generator is responsible for proper waste characterization. NOTE: U. S. Federal and state hazardous waste regulations may differ considerably.
Waste Disposal	That which cannot be recovered or recycled, should be disposed of in accordance with all applicable international, national, regional, state, and local laws. Do NOT dump into any sewer, on ground, or into any body of water.

SECTION 14 TRANSPORT INFORMATION

14.1 UN number	UN 2920
14.2 UN proper shipping name	Corrosive Liquid, Flammable, n.o.s., (Bis(trimethylsilyl)acetamide)
14.3 Transport Hazard Class	8 (3)

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- 14.5 Packing group PG II
- 14.6 Environmental hazards Not applicable
- 14.6 Special precautions for user See Section 8 for exposure/personal protection guidance.

SECTION 15 REGULATORY INFORMATION

15.1 Safety, health and Environmental regulations specific for the product in question.

NFPA: H3 F2 R0 HMIS: H3 F2 PH 0

15.2 Chemical Inventory Lists

.....BSA or Bis(trimethylsilyl)acetamide
 CAS Number..... 10416-59-8
 TSCA: Y
 This compound is sold strictly for research and development use.
 EINECS:..... Y
 Number 247-102-9
 CERCLA [Section 103 (40 CFR 302.4)]:..... NL
 RQ (lbs) NA
 RCRA Waste Code..... NL
 OSHA Process Safety [29 CFR 1910.119]: NL
 TQ (lbs) NA
 Clean Air Act
 [Section 112r (40 CFR 68)]:..... NL
 TQ (lbs) NA
 Contains Ozone Depleters (Class I or Class II) N
 [Section 103 (40 CFR 302.4)]: NL
 SARA Title III Notification [40 CFR 302.4]:
 Section 302/304 (EHS) Ingredient [40 CFR 355.3]..... NL
 TPQ (lbs)..... NA
 RQ (lbs) NA
 Section 313 Ingredient [40 CFR 372.65] NL
 De Minimus Reporting Level..... NA
 SARA Hazards Acute.....Y Chronic..... N Fire.....Y Pressure..... N ReactivityN
 State Lists: NL
 States..... NL
 On CA 65 Significant Risk Level..... NL

SECTION 16 OTHER INFORMATION

16.1 Full test of H-Statements referred to under Section 2 and 3.

- Acute Tox. Acute toxicity
- Eye Dam. Serious eye damage
- Flam. Liq. Flammable liquids
- H226 Flammable liquid and vapor.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- Skin Corr. Skin corrosion

The above information is believed to be correct to the best of our present state knowledge, but does not purport to be all-inclusive and shall be used only as a guide. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.

Prepared by: Regis Technologies

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