Printing date 01/15/2018

Reviewed on 01/15/2018

1 Identification

- · Product name
- · Trade name: Bis(dimethylamino)dimethylsilane, 99+% BDMADMS
- Item number: 14-1530
- CAS Number: 3768-58-9
- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Strem Chemicals, Inc.
 7 Mulliken Way NEWBURYPORT, MA 01950 USA info@strem.com
- Information department: Technical Department
 Emergency telephone number: EMERGENCY: CHEMTREC: + 1 (800) 424-9300 During normal opening times: +1 (978) 499-1600

2 Hazard(s) identification

· Classification of the substance or mixture



Flam. Liq. 2 H225 Highly flammable liquid and vapor.



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

· Label elements

· GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS). • *Hazard pictograms*

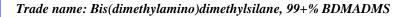


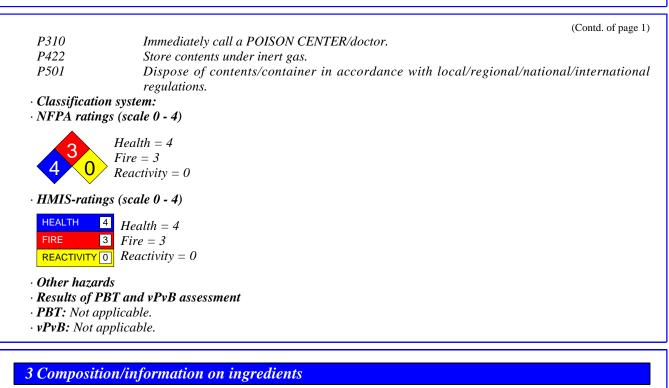
- · Signal word Danger
- Hazard-determining components of labeling: Bis(dimethylamino)dimethylsilane, 96%
 Hazard statements H225 Highly flammable liquid and vapor. H314 Causes severe skin burns and eye damage.
 Precautionary statements P231 Handle under inert gas. P303+P361+P353 If on skin (or hair): 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.

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- · Chemical characterization: Substances
- · CAS No. Description

3768-58-9 Bis(dimethylamino)dimethylsilane, 96%

4 First-aid measures

- · Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- \cdot Suitable extinguishing agents:
- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- \cdot Special hazards arising from the substance or mixture
- During heating or in case of fire poisonous gases are produced.

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Safety Data Sheet according to OSHA HCS

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Trade name: Bis(dimethylamino)dimethylsilane, 99+% BDMADMS

- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Mount respiratory protective device. Wear protective equipment. Keep unprotected persons away.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent.
- Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.
- · 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: Handle under inert gas.
- · Precautions for safe handling
- Ensure good ventilation/exhaustion at the workplace.
- Open and handle receptacle with care.
- Prevent formation of aerosols.
- Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Protect against electrostatic charges. Keep respiratory protective device available.
- · Conditions for safe storage, including any incompatibilities
- · Storage: Store contents under inert gas.
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

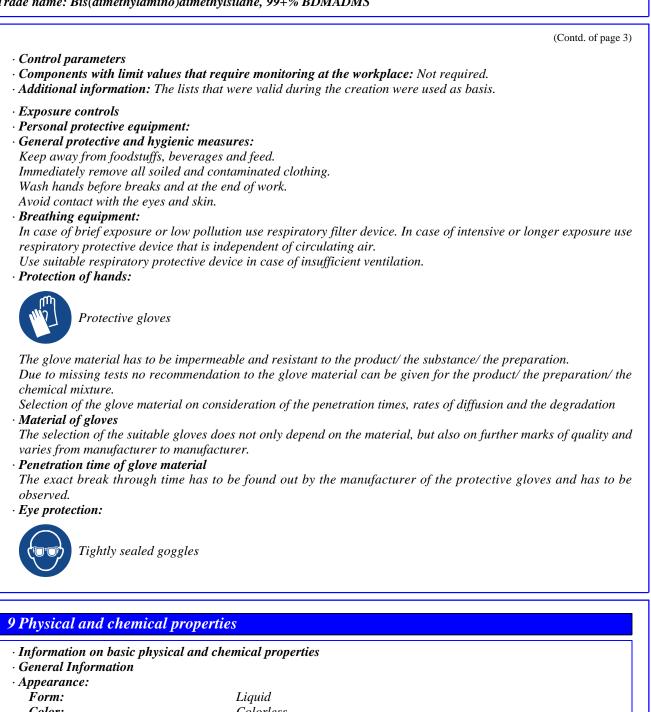
• Additional information about design of technical systems: No further data; see item 7.

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Trade name: Bis(dimethylamino)dimethylsilane, 99+% BDMADMS





| 1 pp cui une ci | | |
|------------------------------|-----------------|--------------------|
| Form: | Liquid | |
| Color: | Colorless | |
| · Odor: | Characteristic | |
| · Odor threshold: | Not determined. | |
| · pH-value: | Not determined. | |
| · Change in condition | | |
| Melting point/Melting range: | Undetermined. | |
| Boiling point/Boiling range: | Undetermined. | |
| | | (Contd. on page 5) |

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Trade name: Bis(dimethylamino)dimethylsilane, 99+% BDMADMS

| | (Contd. of page | |
|---------------------------------------|---|--|
| Flash point: | Not applicable. | |
| · Flammability (solid, gaseous): | Not determined. | |
| · Ignition temperature: | | |
| Decomposition temperature: | Not determined. | |
| • Auto igniting: | Not determined. | |
| Danger of explosion: | Product is not explosive. However, formation of explosive air/vapo mixtures are possible. | |
| Explosion limits: | | |
| Lower: | Not determined. | |
| Upper: | Not determined. | |
| · Vapor pressure: | Not determined. | |
| · Density: | Not determined. | |
| · Relative density | Not determined. | |
| · Vapor density | Not determined. | |
| · Evaporation rate | Not determined. | |
| · Solubility in / Miscibility with | | |
| Water: | Not miscible or difficult to mix. | |
| · Partition coefficient (n-octanol/wa | ter): Not determined. | |
| · Viscosity: | | |
| Dynamic: | Not determined. | |
| Kinematic: | Not determined. | |
| · Solvent content: | | |
| Organic solvents: | 0.0 % | |
| VOC content: | 0.0 g/l / 0.00 lb/gl | |
| Solids content: | 100.0 % | |
| • Other information | No further relevant information available. | |

10 Stability and reactivity

· Reactivity No further relevant information available.

· Chemical stability

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.

· Conditions to avoid No further relevant information available.

- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.

(Contd. on page 6)



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Trade name: Bis(dimethylamino)dimethylsilane, 99+% BDMADMS

(Contd. of page 5)

- Sensitization: No sensitizing effects known.
- \cdot Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:

· General notes:

Water hazard class 1 (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. Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- · 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:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

| UN-Number DOT, IMDG, IATA | UN2924 |
|------------------------------|---|
| UN proper shipping name | |
| DOT | Flammable liquids, corrosive, n.o.s. (Bis(dimethylamino dimethylsilane, 96%) |
| IMDG, IATA | FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Bis(dimethylamino dimethylsilane, 96%) |

Printing date 01/15/2018

CHEMICALS, INC.

Reviewed on 01/15/2018

| | (Contd. of pa |
|---|--|
| • Transport hazard class(es) | |
| DOT | |
| RAMMABLE LOUD 3 8 | |
| Class | 3 Flammable liquids |
| · Label | 3, 8 |
| · IMDG | |
| | |
| - Class | 3 Flammable liquids |
| · Label | 3/8 |
| | |
| - Class | 3 Flammable liquids |
| · Label | 3 (8) |
| · Packing group · DOT, IMDG, IATA | II |
| Environmental hazards: | Not applicable. |
| Special precautions for user EMS Number: | Warning: Flammable liquids F-E,S-C |
| Stowage Category | В |
| Stowage Code | SW2 Clear of living quarters. |
| Transport in bulk according to Anna MARPOL73/78 and the IBC Code | e x II of Not applicable. |
| Transport/Additional information: | |
| DOT | |
| Quantity limitations | On passenger aircraft/rail: 1 L On cargo aircraft only: 5 L |
| · IMDG | |
| \cdot Limited quantities (LQ) | IL Coder F2 |
| \cdot Excepted quantities (EQ) | Code: E2 Maximum net quantity per inner packaging: 30 ml |
| | Maximum net quantity per unter packaging: 500 ml |
| UN ''Model Regulation'': | UN 2924 FLAMMABLE LIQUIDS, CORROSIVE, N.O |

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Printing date 01/15/2018

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Trade name: Bis(dimethylamino)dimethylsilane, 99+% BDMADMS

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15 Regulatory information

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

· Section 355 (extremely hazardous substances):

Substance is not listed.

• Section 313 (Specific toxic chemical listings):

Substance is not listed.

• TSCA (Toxic Substances Control Act):

Substance is listed.

· Proposition 65

· Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

Substance is not listed.

• TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

 \cdot NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

· GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS). • *Hazard pictograms*



· Signal word Danger

Hazard-determining components of labeling: Bis(dimethylamino)dimethylsilane, 96%
Hazard statements H225 Highly flammable liquid and vapor. H314 Causes severe skin burns and eye damage.
Precautionary statements P231 Handle under inert gas. P303+P361+P353 If on skin (or hair): 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

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

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Trade name: Bis(dimethylamino)dimethylsilane, 99+% BDMADMS

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|------|--|
| P310 | Immediately call a POISON CENTER/doctor. |
| P422 | Store contents under inert gas. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international |
| | regulations. |

· National regulations:

• Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

· Department issuing SDS: Technical Department.

· Date of preparation / last revision 01/15/2018 / -

· Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Flam. Liq. 2: Flammable liquids – Category 2 Skin Corr. 1C: Skin corrosion/irritation - Category 1C



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[·] Contact: Technical Director