

Safety Data Sheet

Product No. 18605 Hexamethyldisilazane

Issue Date (09-18-14)

Review Date (11-21-14)

Section 1: Product and Company Identification

Product Name: Hexamethyldisilazane

Synonym: Bis(trimethylsilyl)amine, HMDS

Company Name

Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477

Domestic Phone (800) 237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

International Phone (01) (530) 243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Chemtrec Emergency Number 1-800-424-9300 24 hrs a day.

Section 2: Hazard Identification

GHS Pictograms:

GHS Categories:



Signal Word: Danger

Hazard Statements

Flam Liq. 2: G225 Highly flammable liquid and vapor.

Acute Tox. 3: H311 Toxic in contact with skin.
H331 Toxic if inhaled.

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

Eye Dam. 1: H318 Causes serious eye damage.

Acute Tox. 4: H302 Harmful if swallowed.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No Smoking.

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.

P405 Store locked.

Health Effects:

Estimated HMIS Hazard Rating: Health: 3; Fire: 3; Reactivity: 2
Estimated NFPA Hazard Rating: Health: 3; Fire: 3; Reactivity: 2
(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

Emergency overview

Appearance: Liquid, colorless.

Immediate effects: Serious toxic effects, skin burns and eye damage.

Potential health effects

Primary Routes of entry: Inhalation, Skin and eye absorption. Ingestion.

Signs and Symptoms of Overexposure: NIF

Eyes: Causes severe eye damage.

Skin: Causes severe skin burns. Toxic in contact with skin.

Ingestion: Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Inhalation: Toxic if inhaled.

Chronic Exposure: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Chemical Listed As Carcinogen Or Potential Carcinogen: No

See Toxicological Information (Section 11)

Potential environmental effects

See Ecological Information (Section 12)

Section 3: Composition / Information on Ingredients

Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No)	%	OSHA PEL mg/m ³	ACGIH TLV mg/m ³	NTP	IARC	OSHA regulated
Hexamethyldisilazane (999-97-3)	~100	ND	ND	No	No	No

EC number: 213-668-5

Section 4: First Aid Measures

If accidental overexposure is suspected

General Information: Immediately remove any clothing soiled by the product.

Eye(s) Contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

Skin Contact: Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.

Inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.

Ingestion: Seek medical treatment.

Note to physician

Treatment: NIF

Medical Conditions generally Aggravated by Exposure: NIF

Section 5: Fire Fighting Measures

Flash Point: 8 °C (46 °F)

Flammable Limits: Upper explosion limit: 16.3 %(V), Lower explosion limit: 0.8 %(V)

Auto-ignition point: 380.0 °C

Fire Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus for firefighting if necessary.

Unusual Fire and Explosion Hazards: Flash back possible over considerable distance., Container explosion may occur under fire conditions.

Hazardous combustion products: Carbon oxides, Nitrogen oxides (NO_x), silicon oxides

DOT Class: Flammable, toxic and corrosive.

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled: Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources.

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Place in container for disposal.

Waste Disposal Methods: Dispose of waste according to Federal, State and Local Regulations.

Section 7: Handling and Storage

Precautions to be taken in Handling and Storage: Avoid contact with skin and eyes.

Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking.

Take measures to prevent the buildup of electrostatic charge. Handle under nitrogen, protect from moisture. Store under nitrogen or dry inert gas. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store away from water/moisture.

Storage temperature: Store in cool place.

Storage Pressure: NA

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Ventilation required: Use in chemical fume hood. Use with appropriated engineered ventilation.

Personal Protection Equipment

Respiratory protection: Use a respirator with organic vapor/corrosive cartridges as a backup to engineering controls. Use only equipment tested and approved under appropriate government standard such as NIOSH (US), CEN (EU)

Protective gloves: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Skin protection: Wear protective work clothing.

Eye protection: Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Additional clothing and/or equipment: Eye wash station or shower.

Exposure Guidelines

See Composition/Information on Ingredients (Section 3)

Section 9 Physical and Chemical Properties

Appearance and Physical State: Clear colorless liquid.

Odor (threshold): Odorless

Specific Gravity (H₂O=1): 0.774 g/cm³ (6.459 lbs/gal) at 20 °C

Vapor Pressure (mm Hg): 20.0 hPa at 20.0 °C

Vapor Density (air=1): ND

Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): ND

Boiling Point: 126 °C (259 °F)

Freezing point / melting point: -78 °C (-108 °F)

pH: ND

Solubility in Water: Insoluble (slow hydrolysis)

Molecular Weight: 161.39 g/mol

Section 10: Stability and Reactivity

Stability: Hydrolyses readily. Stable under recommended storage conditions.

Conditions to Avoid: Ammonia is formed upon contact with water or humid air. Heat, flames and sparks. Extremes of temperature and direct sunlight.

Materials to Avoid (Incompatibility): Strong oxidizing agents, Strong acid

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Silicon oxides.

Hazardous Polymerization: No data available.

Section 11: Toxicological Information

Results of component toxicity test performed:

Acute toxicity: LD50 Oral - Rat - 850.0 mg/kg

Remarks: Behavioral: General anesthetic. Cardiac: Pulse rate. Respiratory disorder

LC50 Inhalation - Rat - 6 h - 10 mg/l (OECD Test Guideline 403)

LC50 Inhalation - Rat - 6 h - 1516 ppm (OECD Test Guideline 403)

LD50 Dermal - Rabbit - 549.5 mg/kg

Remarks: Behavioral: Somnolence (general depressed activity). Lungs, Thorax, or Respiration: Other changes. Gastrointestinal: Other changes.

Skin corrosion/irritation Skin – Rabbit Result: Severe skin irritation (Draize Test)

Human experience: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting.

This product **does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

Section 12: Ecological Information

Ecological Information:

Toxicity to fish LC50 - Danio rerio (zebra fish) - 88 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 80.00 mg/l - 48 h

Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - 19.00 mg/l - 72 h

Chemical Fate Information: NIF

Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: NIF

Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

Section 14: Transportation Information

US DOT Information: Proper shipping name: Flammable Liquid, Toxic, Corrosive, N.O.S. (1,1,1,3,3,3-Hexamethyldisilazane)

Hazard Class: 3 (6.1, 8)

Packaging group: II

UN Number: UN3286

IATA: Proper shipping name: Flammable Liquid, Toxic, Corrosive, N.O.S. (1,1,1,3,3,3-Hexamethyldisilazane)

Hazard Class: 3 (6.1,8)

Packing group: II

UN Number: UN3286

Marine Pollutant: No

Canadian TDG: Flammable Liquid, Toxic, Corrosive, N.O.S. (1,1,1,3,3,3-Hexamethyldisilazane)

Section 15: Regulatory Information

United States Federal Regulations

MSDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.

SARA: Section 313: Substance is not listed.

SARA Title III: Substance is not listed

RCRA: NIF

TSCA: All components are listed.

CERCLA: Not listed as RQ.

State Regulations

California Proposition 65: None listed.

International Regulations

Canada WHMIS: All components are listed on DSL.

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC)

No.1907/2006: Substance is not listed

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

REACH- Pre-registered substances: Substance is listed

Section 16: Other Information

Label Information: Flammable, Toxic, Corrosive.

European Risk and Safety Phrases: R34, R20/21/22, R11

Abbreviations used in this document

NE= Not established

NA= Not applicable

NIF= No Information Found

ND= No Data

Disclaimer

Ted Pella, Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is presented in good faith and believed to be accurate, it should be considered only as a supplement to other information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.