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
Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)
Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)
CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day
CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day

Section 2: Hazard Identification

GHS Pictograms:
Flammable GHS02
Toxic GHS06
Corrosive GHS05
Irritant HHS07

Signal Word: Danger

Hazard Statements
Flam Liq. 2: G225 Highly flammable liquid and vapor.
Acute Tox. 3: H311 Toxic in contact with skin.
Acute Tox. 3: 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

<table>
<thead>
<tr>
<th>Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No)</th>
<th>%</th>
<th>OSHA PEL mg/m3</th>
<th>ACGIH TLV mg/m3</th>
<th>NTP</th>
<th>IARC</th>
<th>OSHA regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexamethyldisilazane (999-97-3)</td>
<td>~100</td>
<td>ND</td>
<td>ND</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

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 (NOx), 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

**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

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)
Packaging 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
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.

MSDS Form 0013F1 V2