MATERIAL SAFETY DATA SHEET

Section 1 - Chemical Product and Company Identification

MSDS Name: 1,1,1,3,3,3-Hexamethyldisilazane, 98%

Catalog Numbers: AC120580000, AC120580100, AC120581000, AC120585000

Synonyms: Bis(trimethylsilyl)amine; HMDS; 1,1,1-Trimethyl-N-(trimethylsilyl)silanamine.

Company Identification: Acros Organics BVBA

Janssen Pharmaceuticalaan 3a

2440 Geel, Belgium

Company Identification: (USA) Acros Organics

One Reagent Lane Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 999-97-3

Chemical Name: 1,1,1,3,3,3-HEXAMETHYLDISILAZANE

%: 98% EINECS#: 213-668-5

Hazard Symbols: F C







11 18 36/37/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Flammable liquid and vapor. Harmful if absorbed through the skin. Corrosive. Moisture sensitive. May be harmful if swallowed. Causes eye and skin burns. Causes digestive and respiratory tract burns. Target Organs: None.

Potential Health Effects

Eve: Causes eve burns.

Skin: Harmful if absorbed through the skin. Causes skin burns.

Ingestion: May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns.

May be harmful if swallowed.

Inhalation: May cause irritation of the respiratory tract with burning pain in the nose and throat,

coughing, wheezing, shortness of breath and pulmonary edema. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and

pulmonary edema.

Chronic: No information found.

Section 4 - First Aid Measures

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting Eyes:

the upper and lower eyelids. Get medical aid immediately.

Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while Skin:

removing contaminated clothing and shoes. Wash clothing before reuse.

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Ingestion:

Never give anything by mouth to an unconscious person. Get medical aid immediately.

Get medical aid immediately. Remove from exposure and move to fresh air Inhalation:

immediately. If not breathing, give artificial respiration. If breathing is difficult, give

oxygen.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General As in any fire, wear a self-contained breathing apparatus in pressure-demand, Information:

MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel

to a source of ignition and flash back. Flammable liquid and vapor.

Extinguishing

Do NOT use water directly on fire. Use foam, dry chemical, or carbon dioxide.

Media:

Autoignition 379 deg C (714.20 deg F)

Temperature:

Flash Point: 8 deg C (46.40 deg F)

Explosion Limits: 0.8

Lower: **Explosion Limits: 16.3** Upper:

NFPA Rating: NFPA Rating:

Section 6 - Accidental Release Measures

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

Information:

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable

container. Clean up spills immediately, observing precautions in the Protective Equipment section. Scoop up with a nonsparking tool, then place into a suitable

container for disposal. Remove all sources of ignition.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use

only in a well-ventilated area. Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Take precautionary measures against static discharges. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, Storage:

dry place. Keep container closed when not in use. Store in a tightly closed container.

Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Exposure Limits+-----

Chemical Name ACGIH | NIOSH |OSHA -Final PELs!

| 1,1,1,3,3,3-HEXAMET|none listed | none listed | none listed | | HYLDISILAZANE +----

OSHA Vacated PELs: 1,1,1,3,3,3-HEXAMETHYLDISILAZANE: None listed

Personal Protective Equipment

Wear appropriate protective eyeglasses or chemical safety goggles as described by

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure. Wear appropriate protective clothing to prevent skin exposure. Clothing:

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: Liquid

Color: clear, colorless Odor: None reported. pH: Not available

Vapor Pressure: 20 mm Hg @ 20 C

Vapor Density: 4.6

Evaporation Rate: Not available Viscosity: Not available

Boiling Point: 125 deg C (257.00°F)

Freezing/Melting Point: Not available **Decomposition Temperature:** Not available Solubility in water: Insoluble in water.

Specific Gravity/Density: 0.77

Molecular Formula: C6H19NSi2 Molecular Weight: 161.3107

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Mechanical shock, incompatible materials, ignition sources, temperatures **Conditions to Avoid:**

above 150°C, exposure to moist air or water.

Incompatibilities with Other Not available

Materials

Products

Hazardous Decomposition

Nitrogen oxides, carbon monoxide, carbon dioxide, silicon dioxide,

formaldehyde.

Hazardous Polymerization Has not been reported.

Section 11 - Toxicological Information

CAS# 999-97-3: JM9230000 RTECS#:

LD50/LC50: RTECS:

CAS# 999-97-3: Dermal, guinea pig: LD50 = 1 mL/kg;

Draize test, rabbit, skin: 500 uL Severe; Inhalation, mouse: LC50 = 12 gm/m3/2H; Inhalation, rat: LC50 = 8700 mg/m3/4H;

Oral, mouse: LD50 = 850 mg/kg; Oral, rabbit: LD50 = 1100 mg/kg; Oral, rat: LD50 = 850 mg/kg; Skin, rabbit: LD50 = 710 uL/kg;

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Carcinogenicity: 1,1,1,3,3,3-HEXAMETHYLDISILAZANE - Not listed as a carcinogen by ACGIH, IARC,

NTP, or CA Prop 65.

Epidemiology: Not available
Teratogenicity: Not available
Reproductive: Not available
Neurotoxicity: Not available
Mutagenicity: Not available
Other: Not available

Section 12 - Ecological Information

Not 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

Shipping Name: FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.

Hazard Class: 3 UN Number: UN3286 Packing Group: II Canada TDG

Shipping Name: Not available

Hazard Class: UN Number: Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 999-97-3 is listed on the TSCA

Inventory.

Health & Safety

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

Reporting List

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

Section 12b N

None of the chemicals are listed under TSCA Section 12b. None of the chemicals in this material have a SNUR under TSCA.

TSCA Significant New

Use Rule

CERCLA Hazardous Substances and corresponding RQs None of the chemicals in this material have an $\ensuremath{\mathsf{RQ}}.$

SARA Section 302 Extremely Hazardous None of the chemicals in this product have a TPQ.

Substances

SARA Codes CAS # 999-97-3: acute, flammable, reactive.
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 depletors. This material does not contain

any Class 2 Ozone depletors.

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:

STATE 1,1,1,3,3,3-HEXAMETHYLDISILAZANE is not present on state lists from CA,

PA, MN, MA, FL, or NJ.

California Prop 65

California NoNone of the chemicals in this product are listed.

Significant Risk Level:

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: F C

Risk Phrases:

R 11 Highly flammable.

R 18 In use, may form flammable/explosive vapour-air mixture.

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 7/8 Keep container tightly closed and dry.

S 9 Keep container in a well-ventilated place.

S 16 Keep away from sources of ignition - No smoking.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 29 Do not empty into drains.

S 36/39 Wear suitable protective clothing and eye/face protection.

S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS# 999-97-3: 1

Canada

CAS# 999-97-3 is listed on Canada's DSL List Canadian WHMIS Classifications: Not available

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.

CAS# 999-97-3 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: 11/18/1997 Revision #3 Date 10/03/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility 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 the company 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 the company has been advised of the possibility of such damages.