SAFETY DATA SHEET

fluorochem.

1. Identification of Substance / Mixture

Product Identifier

1.1.2 Product Name Hexamethyldisilazane

1.1.2 Other Names 1,1,1,3,3,3-Hexamethyldisilazane

1.1.1 Product Code S09625 **1.1.3 CAS** 999-97-3

1.1.4 MDL MFCD00008259 **1.1.5 EINECS** 213-668-5

1.1.6 REACH Registration Number

1.2.1 Relevant Uses For research and development purposes only.

1.2.2 Uses Advised Against No uses advised against.

1.3 Supplier Details

1.3.1 Company Fluorochem Ltd

1.3.2 Address Unit 14, Graphite Way

Hadfield

Glossop Derbys. SK13 1QH

United Kingdom 01457 860111

1.3.4 Email sds@fluorochem.co.uk

1.4.1 Emergency Telephone +44 20 3807 3798

2. Hazards Identification

2.1.1 Classification

1.3.3 Telephone

Acute Tox. 3 Acute Tox. 4 Aquatic Chronic 3 Flam. Liq. 2

2.2.1 Signal Word

2.2.2 Pictograms

Danger

GHS02



GHS06



GHS07

2.2.3 Hazards

H225 Highly flammable liquid and vapour. **H302+H332** Harmful if swallowed or if inhaled.

H311 Toxic in contact with skin.

H412 Harmful to aquatic life with long lasting effects.

2.2.4 Precautions

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P235 Keep cool.

P240 Ground and bond container and receiving equipment.

P241.1 Use explosion-proof equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

P260.1 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280.4 Wear protective gloves/protective clothing and eye/face protection.

P301+P310.1 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P352.1 IF ON SKIN: Wash with plenty of water.

P303+P361+P353.1 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P308+P313 IF exposed or concerned: Get medical advice/attention.

P321 Specific treatment.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P342+P311.1 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P370+P378.1 In case of fire: Use dry sand to extinguish

P391 Collect spillage.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501.3 Dispose of contents/container to hazardous waste disposal.

2.2.5 Other Classification Hazards

3. Composition of Ingredients

SUBSTANCE

Hexamethyldisilazane

3.1.1 Name 3.1.2 CAS Einecs 3.1.3 Composition

H225 Flam. Liq. 2 H302+H332 Acute Tox. 4 H311 Acute Tox. 3 H412 Aquatic Chronic 3

Hazards

4. First Aid Measures

4.1.1 Eye contact Where Diphoterine is not available, rinse eyes with copious amounts of water for at least 20 minutes.

213-668-5

4.1.2 Ingestion Where Diphoterine is not available, rinse mouth with copious amounts of water. Seek urgent medical advice.

4.1.3 Inhalation Remove person to fresh air and keep comfortable for breathing. Immediately seek medical attention. If breathing is

irregular or stopped, administer artificial respiration.

4.1.4 Skin ContactWhere Diphoterine is not available, rinse skin with copious amounts of water for at least 20 minutes.

4.1.5 General Advice No additional advice.

999-97-3

4.2.1 Most Important Symptoms and Effects No known symptoms or effects.

4.3.1 Immediate First Aid MeasuresNo special immediate treatment required

5. Fire Fighting Measures

5.1.1 Suitable Fire Extinguishing Media Carbon dioxide, alcohol resistant foam or dry chemical powder.

5.1.2 Unsuitable Fire Extinguishing Media No known unsuitable media.
 5.2.1 Special Hazards In combustion toxic fumes may form.

5.3.1 Advice for Fire Fighters As in any fire, wear self-contained breathing apparatus and full protective gear.

6. Accidental Release Measures

6.1.1 Personal PrecautionsUse personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate

ventilation. Keep personnel away from spill/leak.

6.2.1 Environmental PrecautionsPrevent further leakage if safe to do so. Prevent product from entering drains. Do not let product enter waterways or

sewer systems. Discharge into the environment must be avoided.

6.3.1 Containment - Methods and MaterialsAbsorb the spilled material with an inert absorbent (e.g. sand, silica gel, rag, vermiculite) before transferring into an airtight container. Remove all sources of ignition. Dispose of appropriately according to local regulations.

6.4.1 Referenced SDS Sections For personal protection see section 8. For disposal see section 13.

7. Handling and Storage

Personal Precautions

7.1.1 Safe Handling Wear appropriate personal protective equipment. Use only under a chemical fume hood. Keep away from heat/

sparks/open flame/hot surfaces. Take measures to prevent the build-up of electrostatic charge. Ensure adequate exhaust ventilation, especially if dust, aerosol or fumes will be generated. Avoid contact with skin, eyes and clothing.

For precautions see section 2.2.

7.1.2 Protection Against Explosion and Fire

Where possible, use anti static and spark proof equipment when handling.

7.1.3 General Occupational Hygiene

Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after use. Do not eat,

drink or smoke when using this product. Remove and wash contaminated clothing before re-use.

Conditions for Safe Storage and Incompatabilities

7.2.1 Managing Storage Risks Keep container tightly closed and upright. Store in a cool, dry and well-ventilated place.

7.2.2 Storage Controls
 Keep container tightly closed in a cool area away from sunlight or heat sources.
 7.2.3 Maintaining Integrity
 Keep container tightly closed in a cool area away from sunlight or heat sources.

7.2.4 Other Advice No other specific advice available

7.3.1 Specific End Use(s) No specific end uses are advised. The products supplied are for research purposes only.

8. Exposure Controls / Personal Protection

8.1.1 Control Parameters

8.2.1 Engineering Measures Use only under a chemical fume hood ensuring adequate ventilation, especially in confined areas. Use explosion-

proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the

workstation location

8.2.2 Face Protection Wear tightly fitting safety goggles which adhere to European standard EN 166. Ensure eye bath is to hand.

8.2.3 Hand Protection Handle with impermeable gloves. Inspect gloves before use. Gloves must satisfy the specifications of EU Directive

89/686/EEC and the standard EN374 derived from it. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with

applicable laws and good laboratory practices. Wash and dry hands.

8.2.4 Skin ProtectionWear appropriate protective clothing ensuring all skin is covered. Wear safety shoes that meet at least S1 standards.

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

8.2.5 Respiratory Protection Product should be handled in a fume cupboard with adequate extraction. No respiratory equipment is needed under

normal use conditions

8.2.6 Hygiene Protection Ensure hair or skin particles cannot enter the chemical container.

8.2.7 Environment Exposure ControlsAvoid discharge into the environment, see section 6.2.

9. Physical and Chemical Properties

9.1.1 State Liquid

9.1.2 AppearanceNo data available.9.1.3 OdourNo data available.9.1.4 Odour ThresholdNo data available.9.1.5 pHNo data available.

9.1.6 Melting Point / Freezing Point -76.2°C
9.1.7 Initial Boiling Point 125°C

9.1.8 Boiling Range No data available.

9.1.9 Flash Point 11.4°C Method: Closed Cup

9.1.10 Evaporation Rate
 9.1.11 Flammability
 9.1.12 Upper / Lower Flammability or
 No data available.
 No data available.

Explosion Limits

9.1.13 Vapour Pressure2400 Pa at 25°C9.1.14 Vapour DensityNo data available.9.1.15 Relative Density0.774 g/cm³ at 20°C

9.1.16 Solubility 0.995 g/L at 24°C in Benzene (miscible),Ether (miscible)

9.1.17 Partition Coefficient1.19 at 25°C9.1.18 Auto Ignition Temperature331°C

9.1.19 Decomposition TemperatureNo data available.9.1.20 Viscosity0.9 mm2s at 20°C9.1.21 Explosive PropertiesNo data available.9.1.22 Oxidising PropertiesNo data available.

9.2.1 Other informationNo additional information available.

10. Stability and Reactivity

10.1.1 ReactivityNo known reactivity, based on information available.10.2.1 StabilityStable under recommended storage conditions.

10.3.1 Possibility of Hazardous Reactions None under normal storage conditions.

10.4.1 Conditions To Avoid Heat, sparks, open flames, sources of ignition. Exposure to moisture.

10.5.1 Incompatible Materials Strong oxidising agents.

10.6.1 Hazardous Decomposition Products No Data Available.

11. Toxicology Information

11.1.1 Acute Toxicity Oral LD50, Rat, 1.1ml/kg

Inhalation LC50, Rat, 1516ppm/6 h Dermal, LD50, Rabbit - male, 585mg/kg/24 h

 11.1.2 Skin Corrosion / Irritation
 No Toxicology data available for this product.

 11.1.3 Serious Eye Damage / Irritation
 No Toxicology data available for this product.

11.1.4 Respiratory or Skin Sensitisation Toxic in contact with skin.

 11.1.5 Germ Cell Mutagenicity
 No Toxicology data available for this product.

 11.1.6 Carcinogenicity
 No Toxicology data available for this product.

 11.1.7 Reproductive Toxicity
 No Toxicology data available for this product.

 11.1.8 STOT-single Exposure
 No Toxicology data available for this product.

 11.1.9 STOT-repeated Exposure
 No Toxicology data available for this product.

 11.1.10 Aspiration Hazard
 No Toxicology data available for this product.

11.2.1 Additional Toxicology Information No Toxicology data available for this product.

12. Ecological Information

12.1.1 Toxicity Toxicity to fish:

Danio rerio LC50 - 88mg/l/96 h Toxicity to aquatic invertebrates:

Freshwater invertebrates LC50 - 0.16mg/l/96 h Toxicity to aquatic algae and cyanobacteria: Freshwater algae EC50 - 2mg/l/14 d

12.2.1 Persistence and DegradabilityNo Ecological data available for this product.12.3.1 Bio-Accumulative PotentialNo Ecological data available for this product.

12.4.1 Mobility in Soil Log Pow: 1.19

12.5.1 Results of PBT and vPvB assessment No Ecological data available for this product.

12.7.1 Endocrine Disrupting Properties Avoid release to the environment

12.6.1 Other Adverse Effects Harmful to aquatic life with long lasting effects

13. Disposal Considerations

13.1.1 Disposal Operations Ensure product is disposed of by licensed waste carriers.

13.1.2 Disposal of Packaging

Ensure INNER PACKAGING is disposed of by licensed waste carriers. Some OUTER PACKAGING MAY be

recyclable if not contaminated.

14. Transport Information

IATA UN Number ADR UN Number IMDG UN Number FLAMMABLE LIQUID, FLAMMABLE LIQUID, FLAMMABLE LIQUID, 14.1.2 IATA Proper **ADR Proper Shipping IMDG Proper Shipping** TOXIC, N.O.S. TOXIC, N.O.S. TOXIC, N.O.S. **Shipping Name** Name Name (Hexamethyldisilazane) (Hexamethyldisilazane) (Hexamethyldisilazane) **IATA Packing Group ADR Packing Group** Ш **IMDG Packing Group** Ш 14.1.4 IATA Hazard Class 3 **ADR Hazard Class** 3 **IMDG Hazard Class** 3 14.1.5 IATA Sub Class 6.1 **ADR Sub Class** 6.1 **IMDG Sub Class** 6.1

15. Regulatory Information

15.1.1 Regulatory Information As far as Fluorochem is aware, there are no further regulations controlling this product.

15.2.1 Chemical Safety Assessment No Chemical Safety Assessment is available for this product.

16. Other Information

16.1.2 Information Not Covered in Other Sections

ADR: Accord Europeen sur le transport des merchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)

RID:Reglement International concernant le transport des merchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association ICAO:International Civil

Aviation Organization

ICAO-TI: Technical Instructions by the ICAO

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS:Chemical Abstracts Service

Revision

Date Modified

16.1.1 Disclaimer

Nov 6, 2023 12:08:00 PM

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user. This SDS adheres to Regulation (EC) No 1907/2006, and as of 13th April 2023, also conforms to EU

Regulation 2020/878.