



Precursor to Success

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SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Bis(trimethylsilyl)selenide**

PRODUCT NO: 1386

CAS NO: 4099-46-1

SYNONYMS: Hexamethyldisilselanane

Intended Use: For R&D use only.

MANUFACTURER:

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IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC 1-800-424-9300
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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS CLASSIFICATION:
Flammable liquid (Category 3)
Acute toxicity (Category 4)

Pictogram



Signal Word

Warning

Bis(trimethylsilyl)selenide

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

Hazard Statements

H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled

Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. –No smoking.
P222	Do not allow contact with air
P232	Protect from moisture
P261	Avoid breathing fume/gas/mist/vapors/spray.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P370 +P378	In case of fire: Use CO2, foam or extinguishing powder for extinction.

OTHER HAZARDS

Additional precautionary phrases are located throughout the safety data sheet

HMIS CLASSIFICATION:

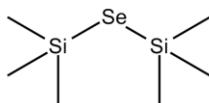
Health: 3 Flammability: 3 Reactivity: 1 Special: Water reactive

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $C_6H_{18}SeSi_2$

Molecular Weight: 225.34

Synonyms: Hexamethyldisilselanane



CHEMICAL NAME	CAS#	Assay
Bis(trimethylsilyl)selenide	4099-46-1	100 %

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Remove contacts if easily possible. Get immediate, professional care from qualified physician or emergency care facility.

SKIN EXPOSURE: Wash affected area with copious amounts of water for at least 15 minutes. Remove contaminated clothes and shoes if necessary. Seek medical assistance immediately.

INHALATION: Remove victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. If not breathing administer CPR. If having trouble breathing give oxygen if available. Seek immediate emergency medical assistance.

INGESTION: Do not induce vomiting. Rinse out mouth with water provided person is conscious. Seek immediate medical assistance.

SECTION 5 FIREFIGHTING MEASURES

EXTINGUISHING MEDIA:

Suitable In case of fire: Use CO₂, foam or extinguishing powder
Unsuitable DO NOT USE WATER!

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:

Carbon Monoxide, Carbon Dioxide, Hydrogen Selenide, and Sulfur Oxides

SPECIFIC HAZARDS:

In combustion, toxic fumes may form. Vapors can form explosive mixtures. Moisture reactive, Exposure to moisture releases Hydrogen Selenide. Contact with strong oxidizers may cause fire.

ADVICE FOR FIRE FIGHTERS

Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes. Vapors can form explosive mixtures. If allowable withdrawal from area and allow to burn.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Eliminate all sources of ignition. Evacuate the area immediately. Do not attempt to take action without suitable protective clothing.

ENVIRONMENTAL PRECAUTIONS

Do not discharge into drains or rivers. Contain the spillage.

METHODS AND MATERIALS

Use non-sparking tools for clean-up procedure. Use dry lime, soda ash, or sand.

SECTION 7 HANDLING AND STORAGE

PERSONAL PRECAUTIONS

SAFE HANDLING: WARNING! FLAMMABLE LIQUID TOXIC BY INHALATION AIR SENSITIVE WATER AND MOISTURE REACTIVE!

Ensure there is sufficient ventilation of the area. Do not eat, drink or smoke when using this product. Ground container and receiving equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Safety showers, Eye wash station readily available in working area.

PROTECTION AGAINST EXPLOSIONS AND FIRES: KEEP AWAY FROM INCOMPATIBLE MATERIALS! Take precautionary measures against static discharge. Use explosion-proof electrical/ventilating/lighting. Use only non-sparking tools.

CONDITIONS FOR SAFE STORAGE

MANAGING STORAGE RISKS: Package and store containers in a blanket of Nitrogen. Store in cool, well-ventilated area. Keep away from sources of ignition. Keep container tightly closed.

STORAGE CONTROLS: Store in a well-ventilated area. Keep away from incompatibles. Keep cool.

MAINTAINING INTEGRITY: Keep away from heat/sparks/open flames/hot surfaces. –No smoking. Keep container tightly closed. Handle and use in a controlled environment under inert atmosphere. To be handled and used by competent individuals only.

INCOMPATIBILITY: Water, moisture, strong oxidizing agents

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

Contains no substances with occupational exposure limit values.

APPROPRIATE ENGINEERING CONTROLS

Handle in accordance with good industrial hygiene and safety practice. Install local exhaust ventilation devices and management to ensure proper control. Handle and use under inert atmosphere.

EYE PROTECTION: Approved safety glasses w/side shields, or safety goggles and face shield

SKIN PROTECTION: Wear appropriate chemical resistant gloves, rubber, neoprene

RESPIRATOR: If adequate ventilation is not available, a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29CFR 1910.34 or NIOSH/MSHA or European Standard EN 149 approved respirator.

ADDITIONAL PROTECTION: Warning! Flammable liquid! Toxic by inhalation! Water/moisture reactive and air sensitive. Avoid contact with skin, eyes, clothing, shoes. Do not inhale vapors. Avoid contact with WATER, MOISTURE, oxidizing agents, friction, heat, flames, and sparks. Eyewash and safety shower in area capable of sustained flushing. Do not eat, drink, or smoke in area.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Colorless liquid

FORMULA MASS: 225.34 g/mol

ODOR: Strong stench

ODOR THRESHOLD: not applicable

pH: not applicable

MELTING POINT/ FREEZING POINT: -7 deg C.

BOILING POINT: 31 deg C @ 2.00mm Hg (87.80 deg F)

FLASH POINT: 43 deg C

EVAPORATION RATE: not applicable

UPPER/LOWER EXPLOSION LIMIT: not applicable

VAPOR PRESSURE: ~ 2mm @ 25 deg C

VAPOR DENSITY: not applicable

RELATIVE DENSITY: 0.900

SOLUBILITY IN WATER: Insoluble, reacts

PARTITION COEFFICIENT: n-octanol/water: not applicable

AUTO-IGNITION TEMPERATURE: not known

DECOMPOSITION: No data available

VISCOSITY: No data available

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable in sealed containers and stored under a dry inert atmosphere. Reacts with water.

HAZARDOUS POLYMERIZATION: Has not been reported.

CONDITIONS TO AVOID: Moist, humid conditions, exposure to air, heat, friction, flames, sparks.

INCOMPATIBILITY: Water, moisture, strong oxidizing agents

DECOMPOSITION PRODUCTS: Hexamethyldisiloxane, silicon oxide

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: No data available

SKIN CORROSION/IRRITATION: Irritant for skin and mucous membranes

SERIOUS EYE DAMAGE/IRRITATION: Irritant effect

RESPIRATORY OR SKIN SENSITIZATION: No sensitizing effect known

GERM CELL MUTAGENICITY: Not known

CARCINOGENICITY: Not known

REPRODUCTIVE TOXICITY: Not known

SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE: Not known

SPECIFIC TARGET ORGAN TOXICITY-REPEATED EXPOSURE: Not known

ASPIRATION HAZARD: Not known

ADDITIONAL INFORMATION: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA, or ACGIH

SECTION 12 ECOLOGICAL DATA

TOXICITY: Not known

PERSISTENCE AND DEGRADABILITY: Not known

BIOACCUMULATIVE POTENTIAL: Not known

MOBILITY AND SOIL: Not known

PBT AND vPvB ASSESSMENT: Not known

OTHER ADVERSE EFFECTS: Water hazard class 2 (self assessment); hazardous for water

ECOLOGICAL INFORMATION: May be hazardous to aquatic life. Do not allow product to reach ground water, water course or sewage system. Do not allow product to be released to the environment without proper governmental permits

SECTION 13 DISPOSAL CONSIDERATIONS

DISPOSAL OF PACKAGING: Disposal must be made according to official regulations

SECTION 14 TRANSPORTATION DATA

Toxic liquid, flammable, organic, n.o.s. (Bis(trimethylsilyl)selenide)

Class 6.1 Subclass 3

UN2929

PG II

DOT, IATA, and IMDG Regulated

Marine Pollutant: YES

SECTION 15 REGULATORY INFORMATION

OSHA HAZARDS

None of the chemicals in this product are considered highly hazardous by OSHA

TSCA

CAS # 4099-46-1 is not listed on the TSCA inventory. It is for research and development use only.

CLEAN AIR ACT:

CAS #4099-46-1 (listed as Selenium compounds) is listed as a hazardous air pollutant (HAP).

This material does not contain any Class 1 Ozone depletors

This material does not contain any Class 2 Ozone depletors

CLEAN WATER ACT:

CAS # 4099-46-1 is listed as a Toxic Pollutant

SARA 302 COMPONENTS

None of the chemicals in this products have a TPQ

SARA 313 COMPONENTS

This material contains bis(trimethylsilyl)Selenide (listed as Selenium compounds), 98%, (CAS # 4099-46-1) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373

STATE

CAS # 4099-46-1 can be found on the following state right to know lists: California, (listed as Silica, amorphous), California, (listed as Selenium compounds), New Jersey, (listed as silica, amorphous), Pennsylvania, (listed as Silica, amorphous), Pennsylvania, (listed as Selenium compounds), Minnesota, (listed as Silica, amorphous), Massachusetts, (listed as Silica, amorphous).

CALIFORNIA PROP 65

California No significant Risk Level: None of the chemicals in this product are listed.

SECTION 16 OTHER INFORMATION

OTHER INFORMATION:

CAS: Chemical Abstract Service

DOT: Department of Transportation

EPA: Environmental Protection Agency

Bis(trimethylsilyl)selenide

IARC: International Agency for the Research on Cancer
IATA: International Air Transport Association
IMDG: International Maritime Code for Dangerous Goods
OSHA: Occupational Safety and Health Administration
SDS: Safety Data Sheet
TSCA: Toxic Substances Control Act

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Nova-Kem makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE PREPARED: 05/2015 Rev. 2

REPLACES: 04/2013 Rev. 1

SDS DEPT