



Precursor to Success

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SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Dimethyl selenide**

PRODUCT NO: 0025

CAS NO: 593-79-3

SYNONYMS: Methyl selenide

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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FOR TECHNICAL INFORMATION CONTACT: +1-262-293-0251

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS CLASSIFICATION:

Acute toxicity, Oral (Category 3)

Acute toxicity, Inhalation (Category 3)

Specific target organ toxicity- repeated exposure (Category 2)

Acute aquatic toxicity (Category 1)

Chronic aquatic toxicity (Category 1)

Pictogram



Signal Word

Danger

Dimethyl selenide

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

Hazard Statements

H301 + H331	Toxic if swallowed or inhaled
H373	May cause damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects

Precautionary Phrases

P260	Do not breathe fume/gas/mist/vapors/spray.
P264	Wash skin 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
P301 + P312	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P314	Get medical advice/attention if you feel unwell
P321	Specific treatment (see supplemental first aid instructions on this label)
P330	Rinse mouth.
P391	Collect spillage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.

OTHER HAZARDS

None.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: C_2H_6Se

Molecular Weight: 109.03 g/mol

Synonyms: Methyl selenide

CHEMICAL NAME	CAS#	Assay
Dimethyl selenide	593-79-3	100 %

SECTION 4 FIRST AID MEASURES

INHALATION: Remove victim to fresh air. If not breathing administer CPR. Consult a physician.

SKIN EXPOSURE: Wash affected area with soap and plenty of water. Remove contaminated clothes and shoes if necessary. Take victim immediately to hospital. Consult a physician.

EYE EXPOSURE: Flush eyes with water as a precaution.

INGESTION: Do not induce vomiting. Rinse out mouth with water provided person is conscious. Consult a physician.

SECTION 5 FIREFIGHTING MEASURES

EXTINGUISHING MEDIA:

In case of fire: Use water spray, CO₂, alcohol-resistant foam or dry chemical

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:

Carbon oxides, selenium oxides

ADVICE FOR FIRE FIGHTERS

Wear self-contained breathing apparatus.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

ENVIRONMENTAL PRECAUTIONS

Contain the spillage. Do not let product enter drains. Discharge to the environment must be avoided.

METHODS AND MATERIALS

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SECTION 7 HANDLING AND STORAGE

PERSONAL PRECAUTIONS

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

CONDITIONS FOR SAFE STORAGE

Keep container tightly closed. Store in dry, well-ventilated area. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature 2 – 8 °C.

Air and moisture sensitive. Store under inert gas.

INCOMPATIBILITY: Water, moisture, strong oxidizing agents

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

Component	CAS-No.	Value	Control parameters	Basis
Dimethyl selenide	593-79-3	TWA	0.200000 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.2 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.200000 mg/m ³	USA. NIOSH Recommended Exposure Limits
	Remarks	Upper Respiratory Tract irritation, Eye irritation		

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION (Cont.)

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. Wash hands before breaks and immediately after handling.

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

SKIN PROTECTION: Wear appropriate chemical resistant gloves. Gloves must be inspected prior to use.

Dispose of contaminated gloves in accordance with applicable laws and good laboratory practices. Wash and dry hands.

RESPIRATOR: If adequate ventilation if 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: Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Colorless liquid

FORMULA MASS: 225.34 g/mol

ODOR: Stench

ODOR THRESHOLD: No data available

pH: No data available

MELTING POINT/ FREEZING POINT: No data available

BOILING POINT: 52.8 deg C @ 760mm Hg (127.0 deg F)

FLASH POINT: No data available

EVAPORATION RATE: No data available

UPPER/LOWER EXPLOSION LIMIT: No data available

VAPOR PRESSURE: No data available

VAPOR DENSITY: No data available

RELATIVE DENSITY: 1.408 g/mL @ 20 °C (68 °F)

SOLUBILITY IN WATER: No data available

PARTITION COEFFICIENT: n-octanol/water: No data available

AUTO-IGNITION TEMPERATURE: No data available

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.

HAZARDOUS POLYMERIZATION: No data available

CONDITIONS TO AVOID: No data available

INCOMPATIBILITY: strong oxidizing agents, strong acids

DECOMPOSITION PRODUCTS: In the event of fire- see section 5.

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral- Rat- 2,100 mg/kg. Remarks- Behavioral: Convulsions or effect on seizure threshold. Lungs, thorax, or respiration. Other changes: Blood- hemorrhage.

SKIN CORROSION/IRRITATION: No data available

SERIOUS EYE DAMAGE/IRRITATION: No data available

RESPIRATORY OR SKIN SENSITIZATION: No data available

GERM CELL MUTAGENICITY: No data available

CARCINOGENICITY: No component of this product present at levels greater than or equal to 0.1% is identified as a known or possible carcinogen by IARC, ACGIH, NTP or OSHA.

REPRODUCTIVE TOXICITY: No data available

SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE: No data available

SPECIFIC TARGET ORGAN TOXICITY-REPEATED EXPOSURE: May cause damage to organs through prolonged or repeated exposure.

ASPIRATION HAZARD: No data available

ADDITIONAL INFORMATION: To the best of our knowledge the chemical, physical, and toxicological properties of this substance are not fully known.

Nausea, headache, vomiting. Stomach irregularities- based on human evidence.

SECTION 12 ECOLOGICAL DATA

TOXICITY: Not known

PERSISTENCE AND DEGRADABILITY: Not known

BIOACCUMULATIVE POTENTIAL: Not known

MOBILITY AND SOIL: Not known

PBT AND vPvB ASSESMENT: Not known

OTHER ADVERSE EFFECTS: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

SECTION 13 DISPOSAL CONSIDERATIONS

DISPOSAL OF PRODUCT AND CONTAMINATED PACKAGING: Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

SECTION 14 TRANSPORTATION DATA

Proper shipping name: Toxic liquid, organic, n.o.s. (Dimethyl selenide)

UN2810 Class 6.1 PG II

DOT, IATA, and IMDG Regulated

Marine Pollutant: YES

SECTION 15 REGULATORY INFORMATION

TSCA

CAS # 593-79-3 is not listed on the TSCA inventory. It is for research and development use only.

SARA 302 COMPONENTS

None of the chemicals in this product are subject to the reporting requirements of Section 302 of SARA Title III

SARA 313 COMPONENTS

This material contains Dimethyl Selenide (CAS # 593-79-3) which is subject to the reporting requirements of Section 313 of SARA Title III

STATE

CAS # 593-79-3 can be found on the following state right to know lists: New Jersey, Pennsylvania

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

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.

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SDS DEPT