



Diphenyl Diselenide		Pricing >
Linear Formula	$(C_6H_5Se)_2$	
Pubchem CID	15460	
MDL Number	MFCD00003001	
EC No.	216-780-2	
IUPAC Name	(phenyldiselanyl)benzene	
SMILES	<chem>C1=CC=C(C=C1)[Se][Se]C2=CC=CC=C2</chem>	
Inchl Identifier	InChI=1S/C12H10Se2/c1-3-7-11(8-4-1)13-14-12-9-5-2-6-10-12/h1-10H	
Inchl Key	YWWZCHLUQSHMCL-UHFFFAOYSA-N	
Signal Word	Danger	
Hazard Statements	H301+H331-H375	
Hazard Codes	T	
Risk Codes	R23/25 R33 R50/53	
Safety Statements	S20/21 S28 S45 S60 S61	
RTECS Number	JM9152500	
Transport Information	N/A	
GHS Pictograms	GHS06 Skull and Crossbones  GHS08 Health Hazard 	

[Create Printable PDF](#)

SAFETY DATA SHEET

Date Accessed: 04/19/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American

Elements product codes for CAS #1666-13-3

Relevant identified uses of the substance:

Scientific research and development

Supplier details:

American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:

Domestic, North America +1 800-424-9300

International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 3 H331 Toxic if inhaled.

GHS08 Health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).



Hazard pictograms

GHS06 GHS08

Signal word Danger

Hazard-determining components of labeling:

diphenyl diselenide

Hazard statements

H301+H331 Toxic if swallowed or if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

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

P261 Avoid breathing

dust/fume/gas/mist/vapors/spray

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

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

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

container tightly closed.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Classification system:
NFPA ratings (scale 0 - 4)
4
0
0
Health = 4
Fire = 0
Reactivity = 0
HMIS-ratings (scale 0 - 4)
HEALTH
FIRE
REACTIVITY
3
0
0
Health = 3
Fire = 0
Reactivity = 0
Other hazards
Results of PBT and vPvB assessment
PBT: N/A
vPvB: N/A

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
CAS # / Substance Name
1666-13-3 diphenyl diselenide
Identification number(s)
EC number: 216-780-2
Index number: 034-002-00-8

SECTION 4. FIRST AID MEASURES

Description of first aid measures
General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.

If inhaled:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

In case of skin contact: Immediately wash with soap and water; rinse thoroughly.

In case of eye contact: Rinse opened eye for several minutes under running water. Consult a physician.

If swallowed: Do not induce vomiting; immediately call for medical help.

Information for doctor:

Most important symptoms and effects, both acute and delayed:

No data available

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

No data available

Advice for firefighters

Protective equipment: Mouth respiratory protective device.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Not required.

Environmental precautions:

Do not allow product to enter drains, sewage systems, or other water courses.

Inform respective authorities in case of seepage into water courses, or sewage systems.

Methods and materials for containment and cleanup:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7. HANDLING AND STORAGE

Handling:

Precautions for safe handling

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Information about protection against explosions and fires: Keep respiratory protective device available.

Conditions for safe storage, including any incompatibilities:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s) No data available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

1666-13-3 diphenyl diselenide

PEL Long-term value: 0.2 mg/m³
as Se

REL Long-term value: 0.2 mg/m³
as Se

TLV Long-term value: 0.2 mg/m³
as Se

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the

chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and

varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be

observed.

Eye protection:

Tightly sealed goggles

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:

Form: Powder

Color: Yellow

Odor: undistinguishable

Odor threshold: No data available.

pH: N/A

Melting point/Melting range: 59-62 °C (138-144 °F)

Boiling point/Boiling range: no data °C

Flash point: N/A

Flammability (solid, gas): Product is not flammable.

Ignition temperature:

Decomposition temperature: No data available.

Autoignition: No data available.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: No data available.

Upper: No data available.

Vapor pressure: no data hPa

Density: No data available.

Relative density No data available.

Vapor density N/A

Evaporation rate N/A

Solubility in / Miscibility with

Water: Insoluble.
Partition coefficient (n-octanol/water): No data available.
Viscosity:
Dynamic: N/A
Kinematic: N/A
Solvent content:
Organic solvents: 0.0 %
VOC content: 0.0 g/l / 0.00 lb/gl
Solids content: 100.0 %
Other information No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity No data available
Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions No dangerous reactions known.
Conditions to avoid No data available
Incompatible materials: No data available
Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity:
Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
Carcinogenic categories
IARC (International Agency for Research on Cancer)
1666-13-3 diphenyl diselenide 3
NTP (National Toxicology Program)
1666-13-3 diphenyl diselenide R
OSHA-Ca (Occupational Safety & Health Administration)
Substance is not listed.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
Aquatic toxicity: No data available
Persistence and degradability No data available
Behavior in environmental systems:

Bioaccumulative potential No data available
Mobility in soil No data available
Additional ecological information: Not known to be hazardous to water.
Results of PBT and vPvB assessment
PBT: N/A
vPvB: N/A
Other adverse effects No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Recommendation:
Must not be disposed of together with household garbage. Do not allow product to enter drains, sewage systems, or other water courses system.
Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

UN-Number
DOT, IMDG, IATA UN3283
UN proper shipping name
DOT, IATA Selenium compound, solid, n.o.s.
IMDG SELENIUM COMPOUND, SOLID, N.O.S.
Transport hazard class(es)
DOT
Class 6.1 Toxic substances
Label 6.1
IMDG, IATA
Class 6.1 Toxic substances
Label 6.1
Packing group
DOT, IMDG, IATA II
Environmental hazards:
Marine pollutant: No
Special precautions for user N/A
Danger code (Kemler): 60
EMS Number: F-A,S-A
Stowage Category B
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code N/A
Transport/Additional information:
DOT
Quantity limitations On passenger aircraft/rail: 25 kg
On cargo aircraft only: 100 kg
IMDG
Limited quantities (LQ) .5kg

Excepted quantities (EQ) Code: E4
Maximum net quantity per inner packaging: 1 g
Maximum net quantity per outer packaging: 500 g
UN "Model Regulation": UN 3283 SELENIUM
COMPOUND, SOLID, N.O.S., 6.1, II

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
Sara
Section 355 (extremely hazardous substances):
Substance is not listed.
Section 313 (Specific toxic chemical listings):
Substance is listed.
TSCA (Toxic Substances Control Act):
Substance is listed.
Proposition 65
Chemicals known to cause cancer:
Substance is not listed.
Chemicals known to cause reproductive toxicity for females:
Substance is not listed.
Chemicals known to cause reproductive toxicity for males:
Substance is not listed.
Chemicals known to cause developmental toxicity:
Substance is not listed.
Carcinogenic categories
EPA (Environmental Protection Agency)
1666-13-3 diphenyl diselenide D
TLV (Threshold Limit Value established by ACGIH)
Substance is not listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)
Substance is not listed.
GHS label elements
The substance is classified and labeled according to the Globally Harmonized System (GHS).
Hazard pictograms
GHS06d GHS08
Signal word Danger
Hazard-determining components of labeling:
diphenyl diselenide
Hazard statements
H301+H331 Toxic if swallowed or if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.
Precautionary statements
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P261 Avoid breathing
dust/fume/gas/mist/vapors/spray
P301+P310 IF SWALLOWED: Immediately call a
POISON CENTER/ doctor.
P305+P351+P338 If in eyes: Rinse cautiously with
water for several minutes. Remove contact lenses, if
present
and easy to do. Continue rinsing.
P403+P233 Store in a well-ventilated place. Keep
container tightly closed.
P501 Dispose of contents/container in accordance
with local/regional/national/international
regulations.
Chemical safety assessment: A Chemical Safety
Assessment has not been carried out.

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No.
1907/2006 (REACH). The above information is
believed to be correct but does not purport to be all
inclusive and shall be used only as a guide. The
information in this document is based on the present
state of our knowledge and is applicable to the
product with regard to appropriate safety precautions.
It does not represent any guarantee of the properties
of the product. American Elements shall not be held
liable for any damage resulting from handling or from
contact with the above product. See reverse side of
invoice or packing slip for additional terms and
conditions of sale. COPYRIGHT 1997-2022
AMERICAN ELEMENTS. LICENSED GRANTED TO
MAKE UNLIMITED PAPER COPIES FOR INTERNAL
USE ONLY.
