



Preparing for the New Era of Laboratories

SAFETY DATA SHEET (SDS)

According to regulation (EU) no.1907/2006

SELENIUM (METAL) POWDER AR

PRODUCT CODE : O-5281

CAS No : 7782-49-2

FORMULA : Se

UN No : 3288

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SELENIUM (METAL) POWDER AR



SDS Number : 0584

Date : March 17, 2026

Version : 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product Name** : SELENIUM (METAL) POWDER AR
Synonyms : -
CAS No. : 7782-49-2
HS Code : 2804.9000
Chemical Formula : Se
Molecular Weight : 78.96 g/mol
Product Code : O-5281
Brand : Labotiq
1.2 Manufacturer : Labotiq
Address : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111
Website : www.labotiq.net
Email : labotiq.id@gmail.com
For information : Phone : (+62-251) 8391110, 8311662, Fax : (+62-251) 83135710
Emergency number : +6281316894650
1.3 Application : Laboratory chemicals, Manufacture of substances, General Chemical reagent

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- | | |
|--|--|
| Acute toxicity, (Category 3) | H301: Toxic if swallowed. |
| Acute toxicity, (Category 3) | H331: Toxic if inhaled. |
| Specific target organ toxicity – repeated exposure, (Category 2) | H373: May cause damage to organs through prolonged or repeated exposure. |
| Long-term (chronic) aquatic hazard, (Category 4) | H413: May cause long lasting harmful effects to aquatic life. |

For the full text of the H-Statements mentioned in this Section, see Section 16

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word
H301 + H331
H373

H413

Precautionary statement(s)

P260
P264
P273
P301 + P310

Danger
Toxic if swallowed or if inhaled.
May cause damage to organs through prolonged or repeated exposure.
May cause long lasting harmful effects to aquatic life.

Do not breathe dust.
Wash skin thoroughly after handling.
Avoid release to the environment.
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

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P304 + P340 + P311

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.

P314

Get medical advice/ attention if you feel unwell.

Supplemental Hazard Statements

none

Reduced Labelling (<= 125 ml)
Pictogram



Signal word

Danger

Hazard Statements

H413

May cause long lasting harmful effects to aquatic life.
Toxic if swallowed or if inhaled.

H301 + H331

Precautionary Statements

P264

Wash skin thoroughly after handling.

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P304 + P340 + P311

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.

Supplemental Hazard Statements

none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : SELENIUM (METAL) POWDER AR
Formula : Se
Molecular weight : 78.96 g/mol
CAS-No. : 7782-49-2
EC-No. : 231-957-4
Index-No. : 034-001-00-2

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3.2 Mixture

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Selenium CAS-No. 7782-49-2 EC-No. 231-957-4 Index-No. 034-001-00-2	Acute Tox. 3; STOT RE 2; Aquatic Chronic 4; H301, H331, H373, H413	<=100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

First aiders need to protect themselves. Show this safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen..

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given

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5.2 Special hazards arising from the substance or mixture

Selenium/selenium oxides Not combustible. Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons. Store under inert gas.

Storage class

Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure control

Appropriat engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

Handle with gloves. Gloves must be inspected prior to use. 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril® (KCL 740, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril® (KCL 740, Size M)

Body Protection

protective clothing

Respiratory protection

required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

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9.1 Information on basic physical and chemical properties

Appearance	Form: powder
Odour	Colour: light grey
Odour Threshold	No data available
pH	Not applicable
Melting point/freezingpoint	No data available
Initial boiling point and boiling range	Melting point/ range: 217 °C - lit.
Flash point	684,9 °C - lit.
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	The product is not flammable. - Regulation (EC) No. 440/2008, Annex, A.10
Vapour pressure	No data available
Vapour density	No data available
Relative density	> 0,001 hPa at 20 °C
Density	No data available
Water solubility	4,8 at 25 °C
Partition coefficient: noctanol/water	4,81 g/cm3 at 25 °C - lit.
Auto-ignition temperature	0,1 g/l at 20,9 °C - insoluble
Decomposition temperature	log Pow: 5 Not applicable for inorganic substances
Viscosity	220 - 250 °C at 1.013,25 hPa –
Explosive properties	Relative self-ignition temperature for solids
Oxidizing properties	No data available
	Viscosity, kinematic: No data available
	Viscosity, dynamic: No data available
	Not classified as explosive.
	No data available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature)

10.3 Possibility of hazardous reactions

Risk of explosion with:

- alkali amides
- Metals
- Oxygen
- amides
- cadmium
- Potassium
- sodium
- nitrogen oxides
- Tin
- nitrogen trichloride

Risk of ignition or formation of inflammable gases or vapours with:

- carbides
- peroxi compounds

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halogen-halogen compounds
 halogen oxides
 Fluorine
 lithium silicide
 barium peroxide
 Uranium
 Generates dangerous gases or fumes in contact with:
 hydrochloric acid
 sulfuric acid
 Exothermic reaction with:
 powdered aluminium
 Beryllium
 bromates
 chromium(VI) oxide
 chlorates
 Nickel
 Oxidizing agents
 phosphorus
 platinum
 Nitric acid
 silver oxide
 Zinc
 Alkali metals

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute toxicity estimate Oral - Expert judgement - 100,1 mg/kg

Symptoms: Gastrointestinal disturbance

Acute toxicity estimate Inhalation - Expert judgement - 4 h - 0,51 mg/l - dust/mist

Dermal: No data available

Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE)

Result: No skin irritation

(OECD Test Guideline 431)

Serious eye damage/eye irritation

Eyes - Bovine cornea

Result: No eye irritation - 4 h

(OECD Test Guideline 437)

Respiratory or skin sensitization

Local lymph node assay (LLNA) – Mouse

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Result: negative
(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
Test Type: Chromosome aberration test
Species: Mouse
Cell type: Bone marrow
Application Route: Intraperitoneal
Result: negative
Remarks: (ECHA)

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

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

11.2 Additional Information

Endocrine disrupting properties

Product:

Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - No observed adverse effect level - 0,4 mg/kg

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Sodium selenite

RTECS: VS7700000

anemia, Vomiting, Diarrhoea, Cough, Difficulty in breathing, Acute selenium poisoning produces central nervous system effects, which include nervousness, convulsions, and drowsiness. Other signs of intoxication can include skin eruptions, lassitude, gastrointestinal distress, teeth that are discolored or decayed, odorous ("garlic") breath, and partial loss of hair and nails. Chronic exposure by inhalation can produce symptoms that include pallor, coating of the tongue, anemia, irritation of the mucosa, lumbar pain, liver and spleen damage, as well as any of the other previously mentioned symptoms. Chronic contact with selenium compounds may cause garlic

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odor of breath and sweat, dermatitis, and moderate emotional instability., Dermatitis, garlic-like breath odor, pallor, nervousness, depression To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption:

CNS disorders

Dizziness

muscular weakness

Headache

cardiovascular disorders

Shortness of breath

somnolence

Cough

Unconsciousness

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish

semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 100 mg/l - 96 h

(OECD Test Guideline 203)

Remarks: (above the solubility limit in the test medium)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h

(OECD Test Guideline 202)

Remarks: (above the solubility limit in the test medium)

Toxicity to algae

static test ErC50 - Pseudokirchneriella subcapitata (algae) - > 100

mg/l - 72 h (OECD Test Guideline 201)

Remarks: (above the solubility limit in the test medium)

Toxicity to bacteria

static test EC50 - activated sludge - > 3.200 mg/l - 3 h (OECD Test Guideline 209)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)

semi-static test NOEC - Daphnia magna (Water flea) - >= 100 mg/l- 21 d

(OECD Test Guideline 211)

Remarks: (above the solubility limit in the test medium)

12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Bioaccumulation

Lepomis macrochirus - 60 d - 640 µg/l(Selenium)

Bioconcentration factor (BCF): 7,7

12.4 Mobility in soil

No data available

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12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Discharge into the environment must be avoided.

Endocrine disrupting properties

Product:

Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

No data available

SECTION 14: Transport information

14.1 UN number

ADR/RID: 3288

IMDG: 3288

IATA: 3288

14.2 UN proper shipping name

ADR/RID: TOXIC SOLID, INORGANIC, N.O.S. (Selenium)

IMDG: TOXIC SOLID, INORGANIC, N.O.S. (Selenium)

IATA: TOXIC SOLID, INORGANIC, N.O.S. (Selenium)

14.3 Transport hazard class(es)

ADR/RID: 6.1

IMDG : 6.1

IATA: 6.1

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use

National legislation Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

H2 ACUTE TOXIC

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

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SECTION 16: Other information**Full text of H-Statements referred to under sections 2 and 3.**

H301 Toxic if swallowed.

H331 Toxic if inhaled.

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

H413 May cause long lasting harmful effects to aquatic life.

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 0

Reactivity: 0

Further information

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. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.

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