



chem-supply

Safety Data Sheet

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Infosafe No™	1CHOC	Issue Date : April 2020	RE-ISSUED by CHEMSUPP
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Product Name : **SELENIUM METAL**

Classified as hazardous

1. Identification

GHS Product Identifier	SELENIUM METAL	
Company Name	CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)	
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia	
Telephone/Fax Number	Tel: (08) 8440-2000	
Emergency phone number	CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)	
Recommended use of the chemical and restrictions on use	Electronics, xerographic plates, TV cameras, photocells, magnetic computer cores, solar batteries (rectifiers, relays), ceramics (colorant for glass), steel and copper (degasifier and machinability improver), rubber accelerator, catalyst, trace element in animal feeds and laboratory reagent.	
Other Names	<u>Name</u>	<u>Product Code</u>

Selenium
Elemental selenium
Selenium dust
Selenium homopolymer
SELENIUM METAL Powder AR

SA299

Other Information

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture	Acute Toxicity - Inhalation: Category 3 Acute Toxicity - Oral: Category 3 Specific Target Organ Toxicity - Repeated Exposure Category 2 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 4
Signal Word (s)	DANGER
Hazard Statement (s)	H301+H331 Toxic if swallowed or inhaled. H373 May cause damage to organs through prolonged or repeated exposure. H413 May cause long lasting harmful effects to aquatic life.
Pictogram (s)	Health hazard, Skull and crossbones



Precautionary statement – Prevention

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

Precautionary statement – Response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P311 Call a POISON CENTER or doctor/physician.
P330 Rinse mouth.

Precautionary statement – Storage

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.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.



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Precautionary statement – Disposal P501 Dispose of contents/container according to local, state and federal regulations.

3. Composition/information on ingredients

Chemical Characterization	Solid				
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
	Selenium metal powder	7782-49-2	100 %		

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.
Skin	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. If rapid recovery does not occur, obtain medical attention
Eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. If rapid recovery does not occur, obtain medical attention
First Aid Facilities	Maintain eyewash fountain and drench facilities in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Specific Methods	Use extinguishing media most appropriate for the surrounding fire.
Specific hazards arising from the chemical	Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases. Runoff may pollute waterways.
Hazchem Code	2X

6. Accidental release measures

Spills & Disposal	Avoid breathing dust and contact with skin and eyes.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.
Environmental Precautions	Prevent contamination of soil and water.

7. Handling and storage

Conditions for safe storage, including any incompatibilities	Keep containers closed at all times. Store away from oxidizing agents. Store in a cool, dry place. Store in well ventilated area.
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8. Exposure controls/personal protection

Other Exposure Information	These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity. A time weighted average (TWA) has been established for Selenium compounds (as Se) excluding hydrogen selenide (Worksafe Aust) of 0.1 mg/m ³ . The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
Appropriate engineering controls	Maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective



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Eye Protection	Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Hand Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336. Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
Personal Protective Equipment	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.
Body Protection	Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

9. Physical and chemical properties

Form	Solid
Appearance	Dark grey.
Odour	Odourless.
Melting Point	217°C
Boiling Point	685°C
Solubility in Water	Slightly soluble.
Density	4.79 g/cm3
Flammability	Non combustible material.
Molecular Weight	78.96

10. Stability and reactivity

Reactivity	Risk of dust explosion.
Chemical Stability	Stable under normal conditions of use and storage.
Incompatible Materials	Strong oxidisers, strong acids, metal oxides, carbides, fluorine, oxygen and potassium.
Hazardous Decomposition Products	Selenium oxides.
Possibility of hazardous reactions	Hazardous reaction with amides, alkali amides, alkali metals, alkaline earth metals, metals, bromates, chlorates, phosphorus, platinum, salts of oxyhalogenic acids, oxygen, silver compounds, non metallic halides, acids, carbides, peroxi compounds, halogen-halogen compounds, halogen oxides, fluorine, lithium, silicide.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Acute Toxicity - Oral	Oral LD50 (rat): 6700 mg/kg
Ingestion	Toxic if swallowed. May cause severe irritation to the mouth, throat and digestive tract. May cause liver, spleen, kidney damage and abnormalities. Gastrointestinal disturbances may be expected with nausea, abdominal pain and vomiting.
Inhalation	Toxic by inhalation. Severe irritant to the respiratory system. Symptoms are soreness, coughing and laboured breathing.
Skin	May cause severe irritation. Symptoms include redness, itching and pain.
Eye	May cause irritation, redness and pain.
STOT-repeated exposure	Specidic Target Organ Toxicity - Repeated Exposure Category 2 H373 May cause damage to organs through prolonged or repeated exposure.
Chronic Effects	Danger of cumulative effects. Prolonged or repeated skin contact may cause dermatitis. May cause



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reproductive and fetal effects. Chronic exposure to selenium may cause central nervous system effects, digestive tract disturbances, pallor and garlic breath.

12. Ecological information

Ecological Information	Hazardous to the Aquatic Environment - Long-Term Hazard: Category 4 H413 May cause long lasting harmful effects to aquatic life.
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13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and disposed of according to relevant local, state and federal government regulations.
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14. Transport information

Transport Information	Dangerous Goods of Class 6 Toxic and Infectious Substances are incompatible in a placard load with any of the following: - Class 1, Class 3, if the Class 3 dangerous goods are nitromethane, Class 8, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids, and are incompatible with food packaging in any quantity.
U.N. Number	3283
UN proper shipping name	SELENIUM COMPOUND, SOLID, N.O.S.
Transport hazard class(es)	6.1
Hazchem Code	2X
Packing Group	III
IERG Number	34

15. Regulatory information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Poisons Schedule	S7

16. Other Information

Literature References	<p>Australian Health Ministers' Advisory Council, 'Standard for the Uniform Scheduling of Drugs and Poisons No.16', AGPS, Canberra 2001.</p> <p>Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 12th. Ed.', Rev., Van Nostrand Reinhold, NY, 1993.</p> <p>National Road Transport Commission, 'Australian Dangerous Goods Code 6th. Ed.', AGPS, Canberra, 1998.</p> <p>South Australia Government, 'Approved Code of Practice for the Labelling of Workplace Substances', 1995.</p> <p>Standards Australia, 'Dangerous Goods - Initial Emergency Response Guide', 1997.</p> <p>Worksafe Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]', AGPS, Canberra 1999.</p> <p>Worksafe Australia, 'List of Designated Hazardous Substances [NOHSC:10005(1999)]', AGPS, Canberra 1999.</p> <p>Worksafe Australia, 'National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]', AGPS, Canberra 1994.</p> <p>Worksafe Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]', AusInfo Department of Finance and Administration, Canberra 1995.</p> <p>Paul McCarthy Ph. (08) 8440 2000</p>
Contact Person/Point	<p>DISCLAIMER STATEMENT:</p> <p>All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. Chem-Supply accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.</p>

Empirical Formula & Structural Formula

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...End Of MSDS...



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