

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier	
Product Name	Molybdenum Sulfide Selenide Powder
Synonyms	-
Chemical Name	Maluhdanum aulfida aalanida
Chemical Name	Molybdenum sulfide selenide
Chemical Formula	MoSSe
CAS No.	132004-88-7
EC No.	Not Applicable
Index No.	034-002-00-8
REACH Registration No.	Not applicable.
1.2 Relevant identified uses of the sub	ostance or mixture and uses advised against
Identified Use(s)	PC21 Laboratory chemicals, Research and development use only
1.3 Details of the supplier of the safety	y data sheet
Company Identification	Ossila Limited
Address of Supplier	Solpro Business Park
	Windsor Street
	Shoffiold

	Sheffield
Postal code	S4 7WB, UK
Telephone:	+441142999180
E-mail	info@ossila.com
Office hours	08:00 - 17:00
1.4 Emergency telephone number	
Emergency Phone #	+44 (0) 20 3885 0382 (CHEMTREC)

Other Regions	Emergency Phone Number (CHEMTREC)
Europe, Middle East, Africa	+44 20 3885 0382
North America	+1 703 527 3887
Central America	+52 55 8526 4930
South America	+55 11 4349 1359
Asia, India, and Oceania	+65 3163 8374

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or Regulation (EC) No. 1272/2008 (CLP)	mixture Acute Tox. 3: Toxic if swallowed. Acute Tox. 3: Toxic if inhaled STOT RE 2: May cause damage to organs through prolonged or repeated exposure Aquatic Acute 1: Very toxic to aquatic life Aquatic Chronic 1: Very toxic to aquatic life with long lasting effects
2.2 Label elements	
Product Name	According to Regulation (EC) No. 1272/2008 (CLP) Molybdenum Sulfide Selenide Powder
Hazard Pictogram(s)	GHS06 GHS08 GHS09
Signal Word(s)	Danger
Hazard Statement(s)	H301+H331: Toxic if swallowed or if inhaled H373: May cause damage to organs through prolonged or repeated exposure H400: Very toxic to aquatic life H410: Very toxic to aquatic life with long lasting effects
Precautionary Statement(s)	 P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P273: Avoid release to the environment. P301 + P310 + P330: IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth. 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.



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.

2.4 Additional Information

Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

CAS No.	EC No.	%W/W	Hazard Statement(s)
132004-88-7	Not	≤100	Acute Tox. 3 H301
	Applicable		Acute Tox. 3 H331
			STOT RE 2 H373
			Aguatic Acute 1 H400
			Aquatic Chronic 1 H410
		132004-88-7 Not	132004-88-7 Not ≤100

3.2 Mixtures Not applicable.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures	
General Advice	First aiders should ensure they have taken adequate steps to protect themselves
	from exposure (see Section 8 for recommended personal protection equipment) Show this safety data sheet to the doctor in attendance.
Inhalation	Remove person to fresh air and keep comfortable for breathing. If not breathing give artificial respiration. Call a POISON CENTER or doctor/physician.
Skin Contact	Rinse skin with water. If skin irritation occurs, get medical advice/attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion	Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.
4.2 Most important symptoms and effe	cts, both acute and delayed Most important symptoms and effects, both acute and delayed, are included on
	labelling (Section 2.2) and in Section 11.
4.3 Indication of any immediate medica	al attention and special treatment needed
	Treat symptomatically.
SECTION 5: FIREFIGHTING MEASURES	3
5.1 Extinguishing media	
Suitable Extinguishing media	As appropriate for surrounding fire.
Unsuitable extinguishing media 5.2 Special hazards arising from the su	As appropriate for surrounding fire.
	Molybdenum oxides
5.2 Advice for firefighters	Selenium/selenium oxides
5.3 Advice for firefighters	Fire fighters should wear complete protective clothing including self-contained
	breathing apparatus.
SECTION 6: ACCIDENTAL RELEASE M	EASURES
6.1 Personal precautions, protective ed	nuipment and emergency procedures
	Follow safe handling advice and personal protective equipment recommendations (as per section 8). Provide adequate ventilation.
6.2 Environmental precautions	
	Avoid release to the environment.
6.3 Methods and material for containm	ent and cleaning up Sweep up spilled substance - avoid making dust. Use vacuum equipment for
	collecting spilt materials, where practicable. Dispose of contents in accordance with
6.4 Reference to other sections	local, state or national legislation.
6.4 Reference to other sections	See Also Section 8, 13.
SECTION 7: HANDLING AND STORAGE	
7.1 Precautions for safe handling	
Advice on safe handling	Avoid inhalation, ingestion, and contact with skin and eyes. Use only in a well-
Hygiene measures	ventilated area. Wear protective clothing as per section 8. Keep away from food and drink. Wash hands after handling, before breaks, and at
Tygiene measures	the end of workday.
7.2 Conditions for safe storage, includ	
Storage temperature	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Ambient.
Storage life	Stable under normal conditions.



Incompatible materials

None known.

7.3 Specific end use(s)

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

UK - EH40 Workplace Exposure Limits (WEL).

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTEL (8 hr TWA	LTEL (8 hr TWA	STEL (ppm)	STEL (mg/m³)	Note
		ppm)	mg/m³)			
Selenium and compounds, except hydrogen selenide (as	132004-88-7		0.1			
Se)						
Region Source						

EU

EU Occupational Exposure Limits UK Workplace Exposure Limits EH40/2005 (Third edition, published 2018) United Kingdom

8.2 Exposure controls

8.2.1. Appropriate engineering controls	Ensure adequate ventilation and/or exhaust. A washing facility/water for eye and
8.2.2. Personal protection equipment	skin cleaning purposes should be present.
Eye Protection	Wear eye protection with side protection tested and approved under appropriate government standards such as EN166 (EU).
Hand protection	Handle with gloves. Gloves must be inspected prior to use and proper glove removal techniques should be used. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.
Body protection	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Respiratory protection	Where risk assessment shows air-purifying respirators are appropriate use a full- face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls.
Thermal hazards	None known.
8.2.3. Environmental Exposure Controls	Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties		
Physical State	Solid: Powder.	
Colour	Black.	
Odour	Not known.	
Odour threshold	Not known.	
Melting point/freezing point	Not known.	
Initial boiling point and boiling range	Not known.	
Flammability	Not known.	
Lower and upper explosion limit	Not known.	
Flash Point	Not known.	
Auto-ignition temperature (°C)	Not known.	
Decomposition temperature (°C)	Not known.	
pH	Not known.	
Kinematic viscosity	Not known.	
Solubility(ies)	Solubility (Water): Not known.	
	Solubility (Other): Not known.	
Partition coefficient: n-octanol/water (log	Not known.	
value)		
Vapour pressure	Not known.	
Density	Not known.	
Relative density	Not known.	
Relative vapour density	Not known.	
Particle characteristics	Not known.	
9.2 Other information		
	None.	

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

10.2 Chemical Stability

None anticipated.

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Not known.



10.4 Conditions to avoid	Not known.
10.5 Incompatible materials	
Not known. 10.6 Hazardous decomposition products	
	In the event of fire: see Section 5
SECTION 11: TOXICOLOGICAL INFOR	RMATION
11.1 Information on toxicological effe Acute toxicity - Ingestion	Toxic if swallowed. Classified according to Regulation (EU) 1272/2008, Annex VI
, louis toriloity ingeotion	(Table 3.1/3.2).
Acute toxicity - Skin Contact	No data available.
Acute toxicity - Inhalation	Toxic if inhaled. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2).
Skin corrosion/irritation	No data available.
Serious eye damage/irritation	No data available.
Skin sensitization data Respiratory sensitization data	No data available. No data available.
Germ cell mutagenicity	No data available.
Carcinogenicity	No data available.
Reproductive toxicity	No data available.
Lactation	No data available.
STOT - single exposure	No data available.
STOT - repeated exposure	Causes damage to organs through prolonged or repeated exposure. Classified
	according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2).
Aspiration hazard	No data available.
11.2 Information on other hazards 11.2.1 Endocrine disrupting properties	
11.2.1 Endocrine disrupting properties	None known.
11.2.2. Information on other hazards	
	None known.
SECTION 12: ECOLOGICAL INFORMA	
12.1 Toxicity	
	Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Classified
Taulaite Aquatia inconta basta a	according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2).
Toxicity - Aquatic invertebrates Toxicity - Fish	Not known. Not known.
Toxicity - Algae	Not known.
Toxicity - Sediment Compartment	Not known.
Toxicity - Terrestrial Compartment	Not known.
12.2 Persistence and Degradation	
	Not known.
12.3 Bioaccumulative potential	Not known.
12.4 Mobility in soil	Not Allowit.
	Not known.
12.5 Results of PBT and vPvB assess	
	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 Endocrine disrupting properties	
	Not known.
12.7 Other adverse effects	
	Not known.
SECTION 13: DISPOSAL CONSIDERA	TIONS
13.1 Waste treatment methods	Dispass of contents in accordance with local state or national locialation. Describe
	Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by
	an accredited disposal contractor. Send to a licensed recycler, reclaimer or
	incinerator.
13.2 Additional Information	
	Dispassion should be in accordance with least state or national logislation
	Disposal should be in accordance with local, state or national legislation.
SECTION 14: TRANSPORT INFORMA	· · ·
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SECTION 14: TRANSPORT INFORMAT	· · ·



14.2 UN proper shipping name UN proper shipping name 14.3 Transport hazard class(es)	Selenium compound, solid, n.o.s. (Molybdenum sulfide selenide)
ADR/RID	6.1
IMDG	6.1
ΙΑΤΑ	6.1
14.4 Packing group	
Packing group	
14.5 Environmental hazards	
Environmental hazards	Not classified as a Marine Pollutant.
14.6 Special precautions for user	
Special precautions for user	Not known.
14.7 Maritime transport in bulk accord	ding to IMO instruments
	Not known.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture		
European Regulations - Authorisations a		
Candidate List of Substances of Very	Not listed	
High Concern for Authorisation		
REACH: ANNEX XIV list of substances	Not listed	
subject to authorisation		
REACH: Annex XVII Restrictions on the	Not listed	
manufacture, placing on the market and		
use of certain dangerous substances,		
mixtures and articles		
Community Rolling Action Plan (CoRAP)	Not listed	
Regulation (EC) N° 850/2004 of the	Not listed	
European Parliament and of the Council		
on persistent organic pollutants		
Regulation (EC) N° 1005/2009 on	Not listed	
substances that deplete the ozone layer		
Regulation (EU) N° 649/2012 of the	Not listed	
European Parliament and of the Council		
concerning the export and import of		
hazardous chemicals		
National regulations		
Other	Not known.	
15.2 Chemical Safety Assessment		
-	A REACH chemical safety assessment has not been carried out.	

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Acronyms ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road CAS : Chemical Abstracts Service CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures DNEL : Derived No Effect Level EC : European Community EINECS : European Inventory of Existing Commercial Chemical Substances IATA : International Air Transport Association IBC : Intermediate Bulk Container ICAO : International Maritime Dangerous Goods LTEL : Long term exposure limit PBT : Persistent, Bioaccumulative and Toxic PNEC : Predicted No Effect Concentration REACH : Registration, Revaluation, Authorisation and Restriction of Chemicals RID : Regulations concerning the International Carriage of Dangerous Goods by Rail STEL : Short term exposure limit STOT : Specific Target Organ Toxicity UN : United Nations UPUP : Urage Derivative and Upup Einegrup Uputive	Goods by Inland Waterways ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road CAS : Chemical Abstracts Service CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures DNEL : Derived No Effect Level EC : European Community EINECS : European Inventory of Existing Commercial Chemical Substances IATA : International Air Transport Association IBC : International Civil Aviation Organization IMDG : International Maritime Dangerous Goods LTEL : Long term exposure limit PBT : Persistent, Bioaccumulative and Toxic PNEC : Predicted No Effect Concentration REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals RID : Regulations concerning the International Carriage of Dangerous Goods by Rail STEL : Short term exposure limit STOT : Specific Target Organ Toxicity		
	vi vb. voly i olokont dia voly blododimilativo	Acronyms	Goods by Inland Waterways ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road CAS : Chemical Abstracts Service CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures DNEL : Derived No Effect Level EC : European Community EINECS : European Inventory of Existing Commercial Chemical Substances IATA : International Air Transport Association IBC : Intermediate Bulk Container ICAO : International Civil Aviation Organization IMDG : International Maritime Dangerous Goods LTEL : Long term exposure limit PBT : Persistent, Bioaccumulative and Toxic PNEC : Predicted No Effect Concentration REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals RID : Regulations concerning the International Carriage of Dangerous Goods by Rail STEL : Short term exposure limit STOT : Specific Target Organ Toxicity UN : United Nations



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