acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 25, 2018 Revision: July 24, 2018

1 Identification

· Product identifier

· Trade name: Molybdenum Indicator Powder

· Product code: MO1589SS · CAS Number: 7447-40-7

· Recommended use and restriction on use

· Recommended use: Laboratory chemicals

· Restrictions on use: No relevant information available.

Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

AquaPhoenix Scientific, Inc.

860 Gitts Run Road Hanover, PA 17331 Phone: (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com

Emergency telephone number:

ChemTel Inc.

(800)255-3924 (North America) +1 (813)248-0585 (International)

2 Hazard(s) identification

· Classification of the substance or mixture

Eye Irrit. 2B H320 Causes eye irritation.

- · Label elements
- · GHS label elements

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

- · Hazard pictograms: None.
- · Signal word: Warning
- · Hazard statements:

H320 Causes eye irritation.

· Precautionary statements:

P264 Wash thoroughly after handling.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

Chemical characterization: Substances

· Components:						
7447-40-7	Potassium chloride	Eye Irrit. 2B, H320	>99%			
538-62-5	1,5-diphenylcarbazone		<1%			

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 25, 2018 Revision: July 24, 2018

Trade name: Molybdenum Indicator Powder

(Cont'd. of page 1)

4 First-aid measures

- Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Brush off loose particles from skin.

Wash with soap and water.

If skin irritation is experienced, consult a doctor.

· After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed:

Causes eye irritation.

Gastric or intestinal disorders when ingested.

- · Danger: May be harmful if swallowed.
- · Indication of any immediate medical attention and special treatment needed:

If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- For safety reasons unsuitable extinguishing agents: No relevant information available.
- · Special hazards arising from the substance or mixture No relevant information available.
- Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

For large spills, wear protective clothing.

Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Methods and material for containment and cleaning up

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

(Cont'd. on page 3)

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 25, 2018 Revision: July 24, 2018

Trade name: Molybdenum Indicator Powder

(Cont'd. of page 2)

See Section 13 for disposal information.

7 Handling and storage

- Handling
- · Precautions for safe handling: Use only in well ventilated areas.
- · Information about protection against explosions and fires: No special measures required.
- 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: Store away from foodstuffs.
- Further information about storage conditions:

Keep containers tightly sealed.

Store in dry conditions.

This product is hygroscopic.

Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- Exposure controls
- General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- · Engineering controls: Provide adequate ventilation.
- · Breathing equipment: Not required under normal conditions of use.
- Protection of hands:



Protective gloves

· Material of gloves

Nitrile rubber, NBR

Natural rubber, NR

Butyl rubber, BR

Neoprene gloves

Sensibilization by the components in the glove materials is possible.

· Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

(Cont'd. on page 4)

Page: 4/8

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 25, 2018 Revision: July 24, 2018

Trade name: Molybdenum Indicator Powder

(Cont'd. of page 3)

· Body protection:

Not required under normal conditions of use.

Protection may be required for spills.

Limitation and supervision of exposure into the environment

No relevant information available.

9 Physical and chemical properties					
Information on basic physical and chemical properties					
· Appearance:					
Form:	Crystalline powder				
Color: · Odor:	White Odorless				
· Odor threshold:	Not determined.				
· pH-value:	Not applicable.				
Melting point/Melting range:	760-780 °C (1,400-1,436 °F)				
· Boiling point/Boiling range:	Not determined.				
· Flash point:	The product is not flammable.				
· Flammability (solid, gaseous):	Product is not flammable.				
· Auto-ignition temperature:	Not determined.				
· Decomposition temperature:	Not determined.				
· Danger of explosion:	Product does not present an explosion hazard.				
· Explosion limits					
Lower:	Not determined.				
Upper:	Not determined.				
· Oxidizing properties:	Not determined.				
· Vapor pressure:	Not determined.				
· Density at 20 °C (68 °F):	>1.97 g/cm³ (>16.44 lbs/gal)				
Relative density:	Not determined.				
Vapor density:	Not applicable.				
· Evaporation rate:	Not applicable.				
· Solubility in / Miscibility with					
Water:	Soluble.				
· Partition coefficient (n-octanol/wat	ter): Not determined.				
· Viscosity					
Dynamic:	Not applicable.				
Kinematic:	Not applicable.				
· Other information	No relevant information available.				

10 Stability and reactivity

(Cont'd. on page 5)

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 25, 2018 Revision: July 24, 2018

Trade name: Molybdenum Indicator Powder

(Cont'd. of page 4)

- · Reactivity: No relevant information available.
- · Chemical stability: Stable under normal temperatures and pressures.
- Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

· Possibility of hazardous reactions

Reacts with strong acids.

Contact with acids releases toxic gases.

- · Conditions to avoid No relevant information available.
- · Incompatible materials No relevant information available.
- · Hazardous decomposition products Possible in traces.

11 Toxicological information

- Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral LD50 2,200-2,900 mg/kg (rat)

7447-40-7 Potassium chloride

Oral LD50 2,600 mg/kg (rat)

- Primary irritant effect:
- On the skin:

Causes mild skin irritation.

Based on available data, the classification criteria are not met.

- · On the eye: Irritating effect.
- · Sensitization: Based on available data, the classification criteria are not met.
- IARC (International Agency for Research on Cancer):

Substance is not listed.

NTP (National Toxicology Program):

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration):

Substance is not listed.

· Probable route(s) of exposure:

Ingestion.

Inhalation.

Eye contact.

Skin contact.

· Acute effects (acute toxicity, irritation and corrosivity):

Irritating to eyes.

May be harmful if swallowed.

- · Repeated dose toxicity: No relevant information available.
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- · Carcinogenicity: Based on available data, the classification criteria are not met.
- Reproductive toxicity: Based on available data, the classification criteria are not met.

(Cont'd. on page 6)

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 25, 2018 Revision: July 24, 2018

Trade name: Molybdenum Indicator Powder

(Cont'd. of page 5)

- · STOT-single exposure: Based on available data, the classification criteria are not met.
- · STOT-repeated exposure: Based on available data, the classification criteria are not met.
- · Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

- · Toxicity
- · Aquatic toxicity No relevant information available.
- Persistence and degradability No relevant information available.
- · Bioaccumulative potential: No relevant information available.
- · Mobility in soil: No relevant information available.
- Additional ecological information
- · General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · **vPvB:** Not applicable.
- · Other adverse effects No relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- **Uncleaned packagings**
- · **Recommendation:** Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

4 Transport information		
· UN-Number · DOT, ADR, IMDG, IATA	Not regulated.	
· UN proper shipping name · DOT, ADR, IMDG, IATA	Not regulated.	
· Transport hazard class(es)		
DOT, ADR, IMDG, IATA		
· Class	Not regulated.	
· Packing group		

(Cont'd. on page 7)

Page: 7/8

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 25, 2018 Revision: July 24, 2018

Trade name: Molybdenum Indicator Powder

		(Cont'd. of page 6)
· DOT, ADR, IMDG, IATA	Not regulated.	
Environmental hazards	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	(II of Not applicable.	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA
- Section 302 (extremely hazardous substances):

Substance is not listed.

· Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act)

Substance is listed.

- · Proposition 65 (California)
- · Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause developmental toxicity for females:

Substance is not listed.

· Chemicals known to cause developmental toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

EPA (Environmental Protection Agency):

Substance is not listed.

· IARC (International Agency for Research on Cancer):

Substance is not listed.

· Canadian Domestic Substances List (DSL) (Substances not listed.):

Substance is listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any (Cont'd. on page 8)

Page: 8/8

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: July 25, 2018 Revision: July 24, 2018

Trade name: Molybdenum Indicator Powder

(Cont'd. of page 7)

specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistant, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

Eye Irrit. 2B: Serious eye damage/eye irritation - Category 2B

· Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

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Safety Data Sheets, Individual Manufacturers

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