1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: BEMOL Tungsten Disulfide Powder
Synonyms: tungsten disulfide, tungsten disulphide, tungsten sulfide
Common Name: Tungsten Disulfide
SDS Number: bem-tung
Revision Date: 1/1/2019
Version: 1.2
CAS Number: 12138-09-9
Chemical Family: Refractory Metal Sulfide
Chemical Formula: WS2

Supplier:

Rose Mill Company
100 Brook Street
West Hartford, CT 06110

860-232-9990 (Phone)
860-232-9995 (Fax)

www.RoseMill.com
info@RoseMill.com

2 HAZARDS IDENTIFICATION

Classification of Substance

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):
None, None, None

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: NONE

GHS Hazard Pictograms:

No GHS pictograms indicated for this product

GHS Hazard Statements:

H000 - None

GHS Precautionary Statements:

P302+350 - IF ON SKIN: Gently wash with soap and water.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P304+341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Hazards not Otherwise Classified (HNOC) or not Covered by GHS

Route of Entry: Eyes; Inhalation; Skin;

Target Organs: No target organs have been determined in humans. High does animal ingestion studies indicate the testes are the target organ.

Inhalation: Can cause irritation and inflammation of the respiratory tract.

Skin Contact: May cause irritation.

Eye Contact: May cause irritation.

Ingestion: Product not intended for ingestion and has low acute toxicity. Small amount (e.g a teaspoonful) swallowed accidentally are not likely to cause effects: swallowing amounts larger than that may cause gastrointestinal sypmtoms.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredients		
CAS#	%	Chemical Name
12138-09-9	>99	Tungsten sulfide (WS2)

4 FIRST AID MEASURES

Inhalation: If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.

Skin Contact: Wash with soap and water.

Eye Contact: Flush with large amounts of water or saline solution, occasionally lifting upper and lower lids, until no evidence of powder remains (approx 15-20mins). Get medical attention if aggravation persists.

Ingestion: Non intended for digestion. Small amounts (e.g.a teaspoonful) swallowed accidentally are not likely to cause effects. If large amounts are swallowed, give two glasses of water or milk to drink and seek medical attention.

Observation only is required for adult ingestion in the range of 4-8 grams. For ingestion of larger amounts, maintain adequate kidney function and force fluids. Gastric lavage is recommended for symptomatic patients only. Hemodialysis should be reserved for massive acute ingestion or patients with renal failure. Boron analyses of urine or blood are only useful for documenting exposure and should not be used to evaluate severity of poisoning or to guide treatment.

5 FIRE FIGHTING MEASURES

No fire hazard. Use extinguishing agents suitable for surrounding fire.
Special procedures: Use a self-contained breathing apparatus to prevent inhalation of dust, mist, or fumes that may be generated during fire fighting activities. No unusual fire or explosive hazards.

6 ACCIDENTAL RELEASE MEASURES

Ventilate area of spill, clean up using methods which avoid dust generation, such as vacuuming with appropriate filter, wet dust mop or wet clean-up. If dust is generated, use approved NIOSH repirator.

7 HANDLING AND STORAGE

Handling Precautions: Wash thoroughly after handling and before eating, smoking and at the end of work shift. Do no shake clothing to remove dust.Use clean up methods that minimize dust.

Storage Requirements: Maintain good housekeeping procedures to prevent accumulation of dust. Use clean up methods that minimize dust.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94).

Personal Protective Equipment: Gloves; Goggles; In poorly ventilated areas you must wear a supplied air respirator.

Effects of overexposure: Dust and inhalation may cause mild irritation of the nose and throat. With the exception of TOW Russian studies that found early signs of pulmonary fibrosis in some workers exposed to tungsten trioxide, tungsten metal, and tungsten compounds to be toxicologically intert. Skin and eye contact may cause irritation due to the abrasiveness of the dust. Recent scientific evidence indicates no adverse effects are likely from accidental ingestion of small amounts of material.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Grayish-Black Powder		
Specific Gravity or Density:	7.4	**Odor:**	Odorless
Vapor Pressure:	n/a	**Solubility:**	insoluble
Molecular weight:	248.02	**Percent Volatile:**	0
		Vapor Density:	n/a

10 STABILITY AND REACTIVITY

Chemical Stability: Product is stable under normal conditions.

Conditions to Avoldentification: n/a

Materials to Avoldentification: Contact with strong acids may generate hydrogen sulfide.

Hazardous Decomposition: Oxides of sulfur and tungsten may be evolved at extreme temperatures

Hazardous Polymerization: n/a

11 TOXICOLOGICAL INFORMATION

Acute Toxicity:
LD50 Oral rat::>2000mg/Kg
LC50 inhalation, rat:>
Irritation of eyes/rabbit: slight irritant
Irritation of the skin/rabbit:non-irritant
Mutagenic effect: Salmonella typhimurium: No indication of mutagenic effects.

12 ECOLOGICAL INFORMATION

Aquatic toxicity:
Acute fish toxicity: 96 h LC50 (Brachydanio rerio): 785mg/l

Acute toxicity for daphnia 48 h EC50 (Daphnia magna):>510 mg/l

Toxicity for algae:
72 h EbC0 (Scenedesmus subspicatus):>330mg/l
72 h ErC0 (Scenedesmus subspicatus):> 330mg/l

Toxicity to bacteria 3 h EC50 (activated sludge): 8972 mg/l

13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

14 TRANSPORT INFORMATION

Not hazardous product according to these transport classifications.

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

Tungsten sulfide (WS2) (12138-09-9) [>99] TSCA

Regulatory CODE Descriptions

TSCA = Toxic Substances Control Act
COMPONENT / (CAS/PERC) / CODES
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*Tungsten sulfide (WS2) (12138099 n/a%) TSCA

REGULATORY KEY DESCRIPTIONS

TSCA = Toxic Substances Control Act

16 OTHER INFORMATION

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