

**MATERIAL DATA SAFETY SHEET**

**GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA**

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifiers**

**Product name : Molybdenum**

**Product Number : m 2302**

**Brand : OTTO**

**CAS-No. : 7439-98-7**

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses : Laboratory chemicals, Manufacture of substances**

**1.3 Details of the supplier of the safety data sheet**

**Company : OTTO**

**1.4 Emergency telephone number**

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.**

**This substance is not classified as dangerous according to Directive 67/548/EEC.**

**2.2 Label elements**

**The product does not need to be labelled in accordance with EC directives or respective national laws.**

**2.3 Other hazards - none**

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

**Formula : Mo**

**Molecular Weight : 95,94 g/mol**

**4. FIRST AID MEASURES**

#### **4.1 Description of first aid measures**

##### **If inhaled**

**If breathed in, move person into fresh air. If not breathing, give artificial respiration.**

##### **In case of skin contact**

**Wash off with soap and plenty of water.**

##### **In case of eye contact**

**Flush eyes with water as a precaution.**

##### **If swallowed**

**Never give anything by mouth to an unconscious person. Rinse mouth with water.**

##### **Most important symptoms and effects, both acute and delayed**

**To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.**

#### **4.3 Indication of any immediate medical attention and special treatment needed**

**no data available**

### **5. FIREFIGHTING MEASURES**

#### **5.1 Extinguishing media**

##### **Suitable extinguishing media**

**Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.**

#### **5.2 Special hazards arising from the substance or mixture**

**Molybdenum oxides**

#### **5.3 Advice for firefighters**

**Wear self contained breathing apparatus for fire fighting if necessary.**

#### **5.4 Further information**

**no data available**

### **6. ACCIDENTAL RELEASE MEASURES**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

**Avoid dust formation. Avoid breathing vapors, mist or gas.**

#### **6.2 Environmental precautions**

**No special environmental precautions required.**

### **6.3 Methods and materials for containment and cleaning up**

**Sweep up and shovel. Keep in suitable, closed containers for disposal.**

### **6.4 Reference to other sections**

**For disposal see section 13.**

## **7. HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

**Provide appropriate exhaust ventilation at places where dust is formed.**

### **7.2 Conditions for safe storage, including any incompatibilities**

**Store in cool place. Keep container tightly closed in a dry and well-ventilated place.**

### **7.3 Specific end use(s)**

**no data available**

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 Control parameters**

**Components with workplace control parameters**

### **8.2 Exposure controls**

**Appropriate engineering controls**

**General industrial hygiene practice.**

**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).**

**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**

**If used in solution, or mixed with other substances, and under conditions which differ from EN 374,**

**contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our**

**customers. It should not be construed as offering an approval for any specific use scenario.**

**Body Protection**

**Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.**

**Respiratory protection**

**Respiratory protection is not required. Where protection from nuisance levels of dusts are desired,**

**use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).**

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Information on basic physical and chemical properties**

**a) Appearance Form: powder**

**Colour: grey, black, silver**

**b) Odour odourless**

**c) Odour Threshold no data available**

**d) pH no data available**

**e) Melting point/freezing**

**point**

**Melting point/range: 2.617 °C - lit.**

**f) Initial boiling point and**

**boiling range**

**4.612 °C - lit.**

**g) Flash point not applicable**

**h) Evaporation rate no data available**

**i) Flammability (solid, gas) The product is not flammable. - Flammability (solids)**

**j) Upper/lower**

**flammability or**

**explosive limits**

**no data available**

**k) Vapour pressure 1 hPa at 3.102 °C**

**l) Vapour density no data available**

**m) Relative density 10,3 g/mL at 25 °C**

**n) Water solubility insoluble**

**o) Partition coefficient: noctanol/water**

**no data available**

**p) Auto-ignition**

**temperature**

**no data available**

**q) Decomposition**

**temperature**

**no data available**

**r) Viscosity no data available**

**s) Explosive properties no data available**

**t) Oxidizing properties no data available**

**9.2 Other safety information**

**no data available**

**10. STABILITY AND REACTIVITY**

### **10.1 Reactivity**

**no data available**

### **10.2 Chemical stability**

**no data available**

### **10.3 Possibility of hazardous reactions**

**no data available**

### **10.4 Conditions to avoid**

**no data available**

### **10.5 Incompatible materials**

**Strong oxidizing agents, Bromine trifluoride, Chlorine trifluoride, Fluorine, lead oxide**

### **10.6 Hazardous decomposition products**

**Other decomposition products - no data available**

## **11. TOXICOLOGICAL INFORMATION**

### **11.1 Information on toxicological effects**

#### **Acute toxicity**

**LD50 Oral - rat - > 5.000 mg/kg**

**LD50 Inhalation - rat - 4 h - > 5,84 mg/l**

**LD50 Dermal - rat - > 2.000 mg/kg**

#### **Skin corrosion/irritation**

**no data available**

#### **Serious eye damage/eye irritation**

**no data available**

#### **Respiratory or skin sensitization**

**no data available**

#### **Germ cell mutagenicity**

**no data available**

#### **Carcinogenicity**

**IARC: No component of this product present at levels greater than or equal to 0.1% is identified as**

probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional Information**

RTECS: QA4680000

**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

Toxicity to fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 800 mg/l - 96 h

mortality LOEC - *Oncorhynchus mykiss* (rainbow trout) - 500 mg/l - 96 h

**12.2 Persistence and degradability**

no data available

**12.3 Bioaccumulative potential**

no data available

**12.4 Mobility in soil**

no data available

#### 12.5 Results of PBT and vPvB assessment

no data available

#### 12.6 Other adverse effects

no data available

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

##### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

##### Contaminated packaging

Dispose of as unused product.

### 14. TRANSPORT INFORMATION

#### 14.1 UN number

ADR/RID: - IMDG: - IATA: -

#### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

#### 14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

#### 14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

#### 14.5 Environmental hazards

ADR/RID: no IMDG Marine Pollutant: no IATA: no

#### 14.6 Special precautions for user

no data available

### 15. REGULATORY INFORMATION

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

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

**no data available**

**15.2 Chemical Safety Assessment**

**no data available**

**16. OTHER INFORMATION**

**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. OTTO INC and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.**