Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

*Product Name:* Molybdenum 2 Reagent
*Catalog Number:* 2352549

Hach Company
P.O.Box 389
Loveland, CO USA 80539
(970) 669-3050

*Emergency Telephone Numbers:*
(Medical and Transportation)
(303) 623-5716  24 Hour Service
(515)232-2533  8am - 4pm CST

*MSDS Number:* M00342
*Chemical Name:* Not applicable
*CAS No.:* Not applicable
*Chemical Formula:* Not applicable
*Chemical Family:* Not applicable
*Hazard:* May cause eye irritation.
*Date of MSDS Preparation:*
*Day:* 19
*Month:* July
*Year:* 1999

2. COMPOSITION / INFORMATION ON INGREDIENTS

**Octylphenoxypolyethoxyethanol**
*CAS No.:* 9036-19-5
*TSCA CAS Number:* 9036-19-5
*Percent Range:* 1.0 - 5.0
*Percent Range Units:* volume / volume
*LD50:* Oral rat LD50 = 1800 mg/kg
*LC50:* Inhalation rat LC50 > 21.5 mg/l
*TLV:* Not established
*PEL:* Not established
*Hazard:* Causes severe eye irritation.

**Demineralized Water**
*CAS No.:* 7732-18-5
*TSCA CAS Number:* 7732-18-5
*Percent Range:* >95.0
*Percent Range Units:* volume / volume
*LD50:* None reported
*LC50:* None reported
*TLV:* Not established
*PEL:* Not established
*Hazard:* No effects anticipated.

**Other component**
*CAS No.:* Not applicable
3. HAZARDS IDENTIFICATION

Emergency Overview:
Appearance: Clear, colorless liquid
Odor: None
MAY CAUSE EYE IRRITATION

HMIS:
Health: 1
Flammability: 0
Reactivity: 0
Protective Equipment: X - See protective equipment, Section 8.

NFPA:
Health: 1
Flammability: 0
Reactivity: 0
Symbol: Not applicable

Potential Health Effects:
Eye Contact: May cause irritation
Skin Contact: No effects are anticipated
Skin Absorption: None reported
Target Organs: None reported
Ingestion: Very large doses may cause: gastrointestinal irritation nausea vomiting diarrhea
Target Organs: None reported
Inhalation: No data reported.
Target Organs: None reported
Medical Conditions Aggravated: None reported
Chronic Effects: No effects anticipated
Cancer / Reproductive Toxicity Information:
This product does NOT contain any OSHA listed carcinogens.
This product does NOT contain any IARC listed chemicals.
This product does NOT contain any NTP listed chemicals.

Additional Cancer / Reproductive Toxicity Information: None reported
Toxicologically Synergistic Products: None reported

4. FIRST AID

Eye Contact: Flush eyes with water. Call physician if irritation develops.
Skin Contact (First Aid): Wash skin with soap and plenty of water.
Ingestion (First Aid): Give large quantities of water. Call physician immediately.
Inhalation: None required.

5. FIRE FIGHTING MEASURES

Flammable Properties: Not applicable
Flash Point: Not applicable
Method: Not applicable
Flammability Limits:
  Lower Explosion Limits: Not applicable
  Upper Explosion Limits: Not applicable
Autoignition Temperature: Not applicable
Hazardous Combustion Products: This material will not burn.
Fire / Explosion Hazards: None reported
Static Discharge: None reported.
Mechanical Impact: None reported
Extinguishing Media: Use media appropriate to surrounding fire conditions
Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice:
Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance.
Containment Technique: Absorb spilled liquid with non-reactive sorbent material. Dike large spills to keep spilled material from entering sewage and drainage systems or bodies of water.
Clean-up Technique: Absorb spilled liquid with non-reactive sorbent material. Sweep up material. Place material in a plastic bag. Mark bag 'Non-hazardous trash', and dispose of as normal refuse. Decontaminate the area of the spill with a soap solution.
Evacuation Procedure: Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation.
Special Instructions (for accidental release): Not applicable
304 EHS RQ (40 CFR 355): Not applicable
D.O.T. Emergency Response Guide Number: None

7. HANDLING / STORAGE

Handling: Avoid contact with eyes. Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.
Storage: Keep container tightly closed when not in use.
Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Maintain general industrial hygiene practices when using this product.
Personal Protective Equipment:
  Eye Protection: safety glasses with top and side shields
  Skin Protection: disposable latex gloves lab coat
  Inhalation Protection: adequate ventilation
Precautionary Measures: Avoid contact with: eyes. Wash thoroughly after handling.
TLV: Not established
PEL: Not established
9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid
Physical State: Liquid
Molecular Weight: Not applicable
Odor: None
pH: 6.5
Vapor Pressure: Not determined
Vapor Density (air = 1): Not determined
Boiling Point: 98°C (208°F)
Melting Point: 1°C (34°F)
Specific Gravity (water = 1): 1.00
Evaporation Rate (water = 1): 0.71
Volatile Organic Compounds Content: Not applicable
Partition Coefficient (n-octanol/water): Not applicable
Solubility:
  Water: Soluble
  Acid: Soluble
  Other: Not determined
Metal Corrosivity:
  Steel: 0.009 in/yr
  Aluminum: 0.001 in/yr

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.
Conditions to Avoid: Evaporation Extreme temperatures
Reactivity/Incompatibility: None reported
Hazardous Decomposition: No hazardous decomposition products known.
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:
LD50: None reported
LC50: None reported
Dermal Toxicity Data: None reported
Skin and Eye Irritation Data: None reported
Mutation Data: None reported
Reproductive Effects Data: None reported
Ingredient Toxicological Data: Octyphenoxypolyethoxycetanol: Oral rat LD50 = 1800 mg/kg, Inhalation rat LC50 > 21.5 mg/l; Dermal rabbit LD50 > 3000 mg/kg

12. ECOLOGICAL INFORMATION

Product Ecological Information: --
No ecological data available for this product.
Ingredient Ecological Information: Bluegill sunfish (Lepomis macrochirus), 96 hour dynamic: > 10 mg/l (Slightly toxic)

13. DISPOSAL CONSIDERATIONS
EPA Waste ID Number: None
Special Instructions (Disposal): Dilute to 3 to 5 times the volume with cold water. Open cold water tap completely, slowly pour the material to the drain. Allow cold water to run for 5 minutes to completely flush the system.
Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.
NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

14. TRANSPORT INFORMATION

D.O.T.: Not Currently Regulated
DOT Hazard Class: NA
DOT Subsidiary Risk: NA
DOT ID Number: NA
DOT Packing Group: NA
I.C.A.O.: Not Currently Regulated
ICAO Hazard Class: NA
ICAO Subsidiary Risk: NA
ICAO ID Number: NA
ICAO Packing Group: NA
I.M.O.: Not Currently Regulated
IMO Hazard Class: NA
IMO Subsidiary Risk: NA
IMO ID Number: NA
IMO Packing Group: NA

15. REGULATORY INFORMATION

U.S. Federal Regulations:
O.S.H.A.: This product meets the criteria for a hazardous substance as defined in the Hazard Communication Standard: (29 CFR 1910.1200)
E.P.A.: S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370): Immediate (Acute) Health Hazard S.A.R.A. Title III Section 313 (40 CFR 372): This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.
302 (EHS) TPQ (40 CFR 355): Not applicable
304 CERCLA RQ (40 CFR 302.4): Not applicable
304 EHS RQ (40 CFR 355): Not applicable
Clean Water Act (40 CFR 116.4): Not applicable
RCRA: Contains no RCRA regulated substances.
C.P.S.C.: Not applicable
State Regulations:
California Prop. 65: No Prop. 65 listed chemicals are present in this product.
Identification of Prop. 65 Ingredient(s): None
Trade Secret Registry: Not applicable
National Inventories:
16. OTHER INFORMATION

**Intended Use:** Determination of molybdenum


**Legend:**
- NA - Not Applicable
- ND - Not Determined
- NV - Not Available
- w/w - weight/weight
- w/v - weight/volume
- v/v - volume/volume

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

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