$The following \ list \ contains \ the \ Material \ Safety \ Data \ Sheets \ you \ requested. \ Please \ scoll \ down \ to \ view \ the \ requested \\ MSDS(s).$

Product	MSDS	Distributor	Format	Language	Quantity
2359300	2352523	Hach Company	ROWGHS	English	1
2359300	2359299	Hach Company	ROWGHS	English	1

Total Enclosures: 2

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

SAFETY DATA SHEET

Emergency Telephone Numbers:

24 Hour Service

8am - 4pm CST

(Medical and Transportation)

(303) 623-5716

(515)232-2533

MSDS No: M00342

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Molybdenum 2 Reagent for Low Range Molybdate

Catalog Number: 2352523

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

MSDS Number: M00342 Chemical Name: Not applicable CAS Number: Not applicable

Additional CAS No. (for hydrated forms): Not applicable

Chemical Formula: Not applicable *Chemical Family:* Not applicable

Intended Use: Determination of molybdenum

2. HAZARDS IDENTIFICATION

GHS Classification:

Hazard categories: Serious Eye Damage/Eye Irritation: Eye Irrit. 2 Hazardous to the Aquatic Environment: Aquatic

Chronic 3

GHS Label Elements:

WARNING



Hazard statements: Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

Precautionary statements: Handle environmental release according to local, state, federal, provincial requirements. Wear eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Dispose of contents/container according to state, local, federal or national regulations.

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

WHMIS Hazard Classification: Not applicable

WHMIS Symbols: Not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components according to GHS:

Octylphenoxypolyethoxyethanol

CAS Number: 9036-19-5

Chemical Formula: (C₂H₄O)_nC₁₄H₂₂O

GHS Classification: Acute tox. 5 - Orl, H303; Eye Dam. 1, H318

Percent Range (Trade Secret): 1.0 - 5.0 Percent Range Units: weight / weight

PEL: Not established **TLV:** Not established

WHMIS Symbols: Other Toxic Effects Cetyltrimethylammonium Bromide

CAS Number: 57-09-0

Chemical Formula: C₁₉H₄₂NBr

GHS Classification: Acute Tox. 4 -Orl, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT Single 3, H335; Aquatic

Chronic 1, H410

Percent Range (Trade Secret): < 0.2 Percent Range Units: weight / weight

PEL: Not establishedTLV: Not established

WHMIS Symbols: CorrosiveAcute Poison Hazardous Components according to GHS: No

Demineralized Water

CAS Number: 7732-18-5 Chemical Formula: H₂O

GHS Classification: Not a dangerous substance according to GHS.

Percent Range (Trade Secret): >95.0 Percent Range Units: weight / weight

PEL: Not established **TLV:** Not established

WHMIS Symbols: Not applicable

4. FIRST AID MEASURES

General Information: In the event of exposure, show this Material Safety Data Sheet and label (where possible) to a doctor.

Advice to doctor: Treat symptomatically.

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician if irritation develops.

Skin Contact (First Aid): Remove contaminated clothing. Wash skin with soap and plenty of water. Call physician if irritation develops.

Inhalation: Remove to fresh air.

Ingestion (First Aid): Give large quantities of water. Never give anything by mouth to an unconscious person. Call

physician immediately.

5. FIRE FIGHTING MEASURES

Flammable Properties: Material is not classified as flammable according to GHS criteria.

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective

gear.

Extinguishing Media: Use media appropriate to surrounding fire conditions

Extinguishing Media NOT To Be Used: Not applicable

Fire / Explosion Hazards: None reported

Hazardous Combustion Products: This material will not burn.

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. Dilute with a large excess of water. Decontaminate the area of the spill with a soap solution. Dispose of in accordance with local, state and federal regulations or laws.

Evacuation Procedure: Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation

DOT Emergency Response Guide Number: Not applicable

7. HANDLING AND 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 / PERSONAL PROTECTION

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 In the EU, the selected gloves must satisfy the specifications of EU

Directive 89/686/EEC and standard EN 374 derived from it.

Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes Wash thoroughly after handling.

TLV: Not established PEL: Not established

For Occupational Exposure Limits (OEL) for ingredients, see section 3 - Composition/Information on Ingredients.:

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

Physical State: Liquid

Molecular Weight: Not applicable

Odor: None

Odor Threshold: Odorless

pH: 6.5

Metal Corrosivity:

Corrosivity Classification: Not classified as corrosive to metals according to GHS criteria.

Steel: 0.009 in/yr Aluminum: 0.001 in/yr

Specific Gravity/Relative Density (water = 1; air =1): 1.00

Viscosity: Not determined

Solubility:
Water: Soluble
Acid: Soluble
Other: Not determined

Partition Coefficient (n-octanol / water): Not applicable

Coefficient of Water / Oil: Not applicable

Melting Point: 1 °C (34 °F)

Decomposition Temperature: Not determined

Boiling Point: 98 °C (208 °F) Vapor Pressure: Not determined Vapor Density (air = 1): Not determined Evaporation Rate (water = 1): 0.71

Volatile Organic Compounds Content: Not applicable

Flammable Properties: Material is not classified as flammable according to GHS criteria.

Flash Point: Not applicable

Method: Not applicable *Flammability Limits:*

Lower Explosion Limits: Not applicable Upper Explosion Limits: Not applicable Autoignition Temperature: Not applicable

Explosive Properties:

Not classified according to GHS criteria.

Oxidizing Properties:

Not classified according to GHS criteria.

Reactivity Properties:

Not classifed as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

Gas under Pressure:

Not classified according to GHS criteria.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Mechanical Impact: None reported *Static Discharge:* None reported.

Reactivity / Incompatibility: None reported

Hazardous Decomposition: No hazardous decomposition products known.

Conditions to Avoid: Evaporation Extreme temperatures

11. TOXICOLOGICAL INFORMATION

Toxicokinetics, Metabolism and Distribution: No information available for mixture.

Toxicologically Synergistic Products: None reported

Acute Toxicity: Practically Non-toxic Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure (STOT-SE): Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity - Repeat Exposure (STOT-RE): Based on classification principles, the classification criteria are not met.

Skin Corrosion/Irritation: Based on classification principles, the classification criteria are not met.

Eye Damage: Irritating to eyes.

Sensitization: Based on classification principles, the classification criteria are not met.

CMR Effects/Properties (carcinogenic, mutagenic or toxic to reproduction): No germ cell mutagenicity, carcinogenicity or reproductive toxicity data found.

This product does NOT contain any IARC listed chemicals.

This product does NOT contain any NTP listed chemicals.

This product does NOT contain any OSHA listed carcinogens.

Symptoms/Effects:

Ingestion: Very large doses may cause: gastrointestinal tract irritation nausea vomiting diarrhea

Inhalation: No data reported.Skin Absorption: None ReportedChronic Effects: No effects anticipated

Medical Conditions Aggravated: Pre-existing: Eye conditions

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product. Do not place in landfil. Recycle appropriately. Do not release into the environment.

Method Used for Estimation of Aquatic Toxicity of Mixture Summation Method M-factor (Multiplier) for highly toxic ingredients: 10

Ingredient Ecological Information: Cetyltrimethylammonium Bromide: 96 hr Danio rerio LC50 = 0.3 mg/L; 48 hr Daphnia magna EC50 = 0.03 mg/L; 96 hr Microcystis aeruginosa ErC50 = 0.06 mg/L; 96 hr Echinogammarus tibaldii Amphipod LC50 = 0.16 mg/L

Octylphenoxypolyethoxyethanol: 96 hr Lepomis macrochirus > 10 mg/L; 48 hr Daphnia magna EC50 = 18-26 mg/L; 96 hr Selenastrum Green Algae ErC50 = 0.21 mg/L.

CEPA statement: Octylphenoxypolyethoxyethanol: Inherently toxic to aquatic organisms. Not Persistent or bioaccumulative; Cetyltrimethylammonium Bromide: Inherently toxic to aquatic organisms and Persistent . Not bioaccumulative.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: Not applicable

Special Instructions (Disposal): If permitted by regulation, 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. Otherwise, Dispose of material in an E.P.A. approved hazardous waste facility.

Empty Containers: Rinse three times with an appropriate solvent. Collect rinsate and dispose of according to local, state or federal regulations. In the US, rinsate from empty containers is classified as hazardous waste and should be disposed of at an E.P. A. approved facility. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste. 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. In Europe: Chemical and analysis solutions must be disposed of in compliance with the respective national regulations. Product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

14. TRANSPORT INFORMATION

D.O.T.:

D.O.T. Proper Shipping Name: Not Currently Regulated

--

Hazard Class: NA Subsidiary Risk: NA ID Number: NA Packing Group: NA

T.D.G.

Proper Shipping Name: Not Currently Regulated

--

Hazard Class: NA Subsidiary Risk: NA UN Number/PIN: NA Packing Group: NA

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Not Currently Regulated

__

Hazard Class: NA Subsidiary Risk: NA ID Number: NA Packing Group: NA

I.M.O.:

Proper Shipping Name: Not Currently Regulated

Hazard Class: NA Subsidiary Risk: NA ID Number: NA Packing Group: NA

Additional Information: There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is NOT in a set or kit, the classification given above applies. If the item IS part of a set or kit, the classification would change to the following: UN3316 Chemical Kit, Class 9, PG II or III. If the item is not regulated, the Chemical Kit classification does not apply.

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.

State Regulations:

California Prop. 65: No Prop. 65 listed chemicals are present in this product.

Identification of Prop. 65 Ingredient(s): None

California Perchlorate Rule CCR Title 22 Chap 33: Not applicable

Trade Secret Registry: Not applicable

National Inventories:

U.S. Inventory Status: All ingredients in this product are listed on the TSCA 8(b) Inventory (40 CFR 710).

CAS Number: Not applicable

Canadian Inventory Status: All ingredients of this product are DSL Listed.

EEC Inventory Status: All ingredients used to make this product are listed on EINECS / ELINCS.

Australian Inventory (AICS) Status: All ingredients are listed.

New Zealand Inventory (NZIoC) Status: All components either listed or exempt.

Korean Inventory (KECI) Status: All components of this product are either listed, listed as the anhydrous compound or

exempt.

Japan (ENCS) Inventory Status: All components either listed or exempt.

China (PRC) Inventory (MEP) Status: All components either listed or exempt.

16. OTHER INFORMATION

References: TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. Technical Judgment. Sax, N. Irving. Dangerous Properties of Industrial Materials, 7th Ed. New York: Van Nostrand Reinhold Co., 1989. Gosselin, R. E. et al. Clinical Toxicology of Commercial Products, 5th Ed. Baltimore: The Williams and Wilkins Co., 1984. Vendor Information.

Complete Text of H phrases referred to in Section 3: H302 Harmful if swallowed. Not applicable H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H410 Very toxic to aquatic life with long lasting effects.

Revision Summary: . Substantial revision to comply with EU Reg 1272/2008, Reg 1907/2006 and UN GHS (ST/SG/AC.10/36/Add.3).

Date of MSDS Preparation:

Day: 14
Month: July
Year: 2014

MSDS Prepared: MSDS prepared by Product Compliance Department extension 3350

CCOHS Evaluation Note: It is offered under exemption from WHMIS labeling as specified in the Controlled Products Regulation (CPR) Section 17. It is offered under the interim policy that was established by Health Canada permitting use of GHS-formatted safety data sheets in Canada prior to revision of CPR to GHS. This product has been classified and labeled in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3). This SDS has been prepared in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3).

Legend:

NA - Not Applicable w/w - weight/weight
ND - Not Determined w/v - weight/volume
NV - Not Available 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.

HACH COMPANY ©2015

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

SAFETY DATA SHEET

Emergency Telephone Numbers:

24 Hour Service

8am - 4pm CST

(Medical and Transportation)

(303) 623-5716

(515)232-2533

MSDS No: M00125

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Molybdenum 1 Reagent

Catalog Number: 2359299

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

MSDS Number: M00125 Chemical Name: Not applicable CAS Number: Not applicable

Additional CAS No. (for hydrated forms): Not applicable

Chemical Formula: Not applicable **Chemical Family:** Not applicable

Intended Use: Laboratory Reagent Determination of molybdenum

2. HAZARDS IDENTIFICATION

GHS Classification:

Hazard categories: Serious Eye Damage/Eye Irritation: Eye Irrit. 2A . .

GHS Label Elements:

WARNING



Hazard statements: . . Causes serious eye irritation.

Precautionary statements: Wear protective gloves / protective clothing / eye protection / face protection. Wear eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

HMIS:

Health: 1 Flammability: 1 Reactivity: 0

Protective Equipment: X - See protective equipment, Section 8.

NFPA:
Health: 1
Flammability: 1
Reactivity: 0

Symbol: Not applicable

WHMIS Hazard Classification: Not applicable

WHMIS Symbols: Not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components according to GHS:

Potassium Acid Phthalate

CAS Number: 877-24-7 Chemical Formula: C₈H₅KO₄

GHS Classification: Acute Tox 5, H303; Acute Tox. Derm. 4, H312; Eye Irrit. 2A, H319

Percent Range (Trade Secret): 60.0 - 70.0 Percent Range Units: weight / weight

PEL: 15 mg/m³ as total dust; 5 mg/m³ as respirable dust **TLV:** 10 mg/m³ as inhalable dust; 3 mg/m³ as respirable dust

WHMIS Symbols: Not applicable

Pyrocatechol Violet

CAS Number: 115-41-3 Chemical Formula: C₁₉H₁₄O₇S

GHS Classification: Acute Tox. 4-Orl, H302; Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT Single 3, H335; Aquatic

Acute 2, H401

Percent Range (Trade Secret): < 1.0 Percent Range Units: weight / weight

PEL: 15 mg/m³ as total dust; 5 mg/m³ as respirable fraction

TLV: Not Established

WHMIS Symbols: Not applicable

Sodium Hypochlorite

CAS Number: 7681-52-9 Chemical Formula: NaOCl

GHS Classification: Skin Corr. 1B, H314; Aquatic Acute 1, H400

Percent Range (Trade Secret): < 0.1 Percent Range Units: weight / weight

PEL: Not established

TLV: Not established (0.5 ppm as chlorine)

WHMIS Symbols: CorrosiveOther Toxic Effects

Hazardous Components according to GHS: No

Ascorbic Acid

CAS Number: 50-81-7 Chemical Formula: C₆H₈O₆ GHS Classification: Not applicable Percent Range (Trade Secret): 30.0 - 40.0 Percent Range Units: weight / weight

PEL: 15 mg/m³ as total dust; 5 mg/m³ as respirable dust **TLV:** 10 mg/m³ as inhalable dust; 3 mg/m³ as respirable dust

WHMIS Symbols: Not applicable

4. FIRST AID MEASURES

General Information: In the event of exposure, show this Material Safety Data Sheet and label (where possible) to a doctor.

Advice to doctor: Treat symptomatically.

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician.

Skin Contact (First Aid): Wash skin with plenty of water.

Inhalation: Remove to fresh air.

Ingestion (First Aid): Give large quantities of water. Call physician immediately.

5. FIRE FIGHTING MEASURES

Flammable Properties: Can burn in fire, releasing toxic vapors.

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

Obtained by Global Safety Management, www.globalsafetynet.com, (877) 683-7460

Extinguishing Media: Water. Carbon dioxide Dry chemical. Extinguishing Media NOT To Be Used: Not applicable

Fire / Explosion Hazards: None reported

Hazardous Combustion Products: Toxic fumes of: potassium oxides carbon monoxide, carbon dioxide.

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. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

Containment Technique: Stop spilled material from being released to the environment.

Clean-up Technique: If permitted by regulation, Scoop up spilled material into a large beaker and dissolve with water. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Flush reacted material to the drain with a large excess of water. Otherwise, Decontaminate the area of the spill with a soap solution. Dispose of in accordance with local, state and federal regulations or laws.

Evacuation Procedure: Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation

DOT Emergency Response Guide Number: Not applicable

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes skin Do not breathe dust. 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 / PERSONAL PROTECTION

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 In the EU, the selected gloves must satisfy the specifications of EU Directive

89/686/EEC and standard EN 374 derived from it. lab coat

Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes skin Do not breathe: dust Wash thoroughly after handling. Keep

away from: alkalies oxidizers

TLV: Not established PEL: Not established

For Occupational Exposure Limits (OEL) for ingredients, see section 3 - Composition/Information on Ingredients.:

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Brown to beige powder

Physical State: Solid

Molecular Weight: Not applicable

Odor: None

Odor Threshold: Odorless pH: 1.6% soln = 3.6
Metal Corrosivity:

Corrosivity Classification: Not classified as corrosive to metals according to GHS criteria.

Steel: 0.082 in/yr **Aluminum:** 0.002 in/yr

Specific Gravity/Relative Density (water = 1; air =1): 1.64

Viscosity: Not determined

Solubility:
Water: Soluble
Acid: Slightly soluble
Other: Not determined

Partition Coefficient (n-octanol / water): Not applicable

Coefficient of Water / Oil: Not applicable

Melting Point: 146°C (295°F)

Decomposition Temperature: Not determined

Boiling Point: Not applicable Vapor Pressure: Not applicable *Vapor Density (air = 1):* Not applicable *Evaporation Rate (water = 1):* Not applicable

Volatile Organic Compounds Content: Not applicable

Flammable Properties: Can burn in fire, releasing toxic vapors.

Flash Point: Not applicable Method: Not applicable Flammability Limits:

Lower Explosion Limits: Not determined Upper Explosion Limits: Not determined Autoignition Temperature: Not determined

Explosive Properties:

Not classified according to GHS criteria.

Oxidizing Properties:

Not classified according to GHS criteria.

Reactivity Properties:

Not classifed as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

Gas under Pressure:

Not classified according to GHS criteria.

Not determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Mechanical Impact: None reported Static Discharge: None reported.

Reactivity / Incompatibility: Incompatible with: alkalies oxidizers

Hazardous Decomposition: Toxic fumes of: potassium oxide carbon monoxide carbon dioxide

Conditions to Avoid: Heat Excess moisture

11. TOXICOLOGICAL INFORMATION

Toxicokinetics, Metabolism and Distribution: No information available for mixture.

Toxicologically Synergistic Products: None reported

Acute Toxicity: Acute Toxicity Estimate (ATE) - Calculated from Ingredient Toxicity Data Route Data Given Below Based on classification principles, the classification criteria are not met.

Oral Rat LD50 = 4293 mg/kg

Dermal Guinea Pig LD50 > 2000 mg/kg

Specific Target Organ Toxicity - Single Exposure (STOT-SE): Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity - Repeat Exposure (STOT-RE): Based on classification principles, the classification criteria are not met.

Skin Corrosion/Irritation: Based on classification principles, the classification criteria are not met.

Eye Damage: Irritating to eyes.

Sensitization: Based on classification principles, the classification criteria are not met.

CMR Effects/Properties (carcinogenic, mutagenic or toxic to reproduction): Data insufficient for classification

This product does NOT contain any IARC listed chemicals. This product does NOT contain any NTP listed chemicals.

This product does NOT contain any OSHA listed carcinogens.

Symptoms/Effects:

Ingestion: May cause: gastrointestinal tract irritation nausea vomiting paresthesias (tingling or burning sensation) of

the hands and feet

Inhalation: No effects anticipated May cause: irritation of nose and throat

Skin Absorption: No effects anticipated

Chronic Effects: Chronic overexposure may cause eye irritation

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product. Mobility in soil: No data available Based on classification principles, not classified as hazardous to the environment.

CEPA Categorization: Not Persistent or Bioaccumulative. Not inherently toxic to aquatic organisms.

Ingredient Ecological Information: --

Ecological data for ingredients is not indicative of likely ecological harm.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: Not applicable

Special Instructions (Disposal): Dilute material with excess water making a weaker than 5% solution. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the material to the drain. Flush system with plenty of water.

Empty Containers: Rinse three times with an appropriate solvent. Collect rinsate and dispose of according to local, state or federal regulations. Dispose of empty container as normal trash. In the US, rinsate from empty containers is classified as hazardous waste and should be disposed of at an E.P. A. approved facility. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste.

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. In Europe: Chemical and analysis solutions must be disposed of in compliance with the respective national regulations. Product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

14. TRANSPORT INFORMATION

```
D.O.T.:
  D.O.T. Proper Shipping Name: Not Currently Regulated
  Hazard Class: NA
  Subsidiary Risk: NA
  ID Number: NA
  Packing Group: NA
T.D.G.:
  Proper Shipping Name: Not Currently Regulated
  Hazard Class: NA
  Subsidiary Risk: NA
  UN Number/PIN: NA
  Packing Group: NA
I.C.A.O.:
  I.C.A.O. Proper Shipping Name: Not Currently Regulated
  Hazard Class: NA
  Subsidiary Risk: NA
  ID Number: NA
  Packing Group: NA
I.M.O.:
  Proper Shipping Name: Not Currently Regulated
  Hazard Class: NA
  Subsidiary Risk: NA
  ID Number: NA
  Packing Group: NA
```

Additional Information: There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is NOT in a set or kit, the classification given above applies. If the item IS part of a set or kit, the classification would change to the following: UN3316 Chemical Kit, Class 9, PG II or III. If the item is not regulated, the Chemical Kit classification does not apply.

Obtained by Global Safety Management, www.globalsafetynet.com, (877) 683-7460

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.

State Regulations:

California Prop. 65: No Prop. 65 listed chemicals are present in this product.

Identification of Prop. 65 Ingredient(s): None

California Perchlorate Rule CCR Title 22 Chap 33: Not applicable

Trade Secret Registry: Not applicable

National Inventories:

U.S. Inventory Status: All ingredients in this product are listed on the TSCA 8(b) Inventory (40 CFR 710).

CAS Number: Not applicable

Canadian Inventory Status: All ingredients of this product are DSL/NDSL Listed.

EEC Inventory Status: All ingredients used to make this product are listed on EINECS / ELINCS.

Australian Inventory (AICS) Status: All ingredients are listed.

New Zealand Inventory (NZIoC) Status: All components either listed or exempt.

Korean Inventory (KECI) Status: All components of this product are either listed, listed as the anhydrous compound or exempt.

Japan (ENCS) Inventory Status: All components either listed or exempt.

China (PRC) Inventory (MEP) Status: All components either listed or exempt.

16. OTHER INFORMATION

References: 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Technical Judgment. In-house information. Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Association, 1991. Complete Text of H phrases referred to in Section 3: H302 Harmful if swallowed. Not applicable H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H400 Very toxic to aquatic life. Revision Summary: Substantial revision to comply with EU Reg 1272/2008, Reg 1907/2006 and UN GHS (ST/SG/AC.10/36/Add.3).

Date of MSDS Preparation:

Day: 05 **Month:** June **Year:** 2014

MSDS Prepared: MSDS prepared by Product Compliance Department extension 3350

CCOHS Evaluation Note: It is offered under exemption from WHMIS labeling as specified in the Controlled Products Regulation (CPR) Section 17. It is offered under the interim policy that was established by Health Canada permitting use of GHS-formatted safety data sheets in Canada prior to revision of CPR to GHS. This product has been classified and labeled in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3). This SDS has been prepared in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3).

Legend:

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