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SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Nochromix® Catalog Number: 2088300

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: M01282 Chemical Name: Not applicable CAS Number: Not applicable Additional CAS No. (for hydrated forms): Not applicable Chemical Formula: Not applicable Chemical Family: Oxidizing Agents Intended Use: Laboratory glassware cleaner

2. HAZARDS IDENTIFICATION

GHS Classification:

Hazard categories: Oxidizing Solids: Ox. Sol. 3 Acute Toxicity: Acute Tox. 4-Orl . Acute Toxicity: Acute Tox. 4-Inh Skin Corrosion/Irritation: Skin Irrit. 2 Respiratory or Skin Sensitization: Skin Sens.1 Serious Eye Damage/Eye Irritation:Eye Irrit. 2 Respiratory or Skin Sensitization: Resp. Sens.1 Specific Target Organ Toxicity - Single Exposure: STOT SE 3 Hazardous to the Aquatic Environment: Aquatic Chronic 3

GHS Label Elements:



Hazard statements: May intensify fire; oxidiser. Harmful if swallowed. Harmful if inhaled. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Harmful to aquatic life with long lasting effects.
Precautionary statements: Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep/Store away from clothing/combustible materials. Avoid breathing dust/fume/gas/mist/vapours/spray. Do no eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. 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. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Call a POISON CENTER or doctor/physician if you feel unwell. IF INHALED: Remove victim/person to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. Take off contaminated clothing and wash before reuse. Dispose of contents/container according to state, local, federal or national regulations.

HMIS:

Health: 2 Flammability: 0 Reactivity: 3 Protective Equipment: X - See protective equipment, Section 8. NFPA: Health: 1

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Flammability: 0 Reactivity: 2 Symbol: oxy

WHMIS Hazard Classification: Class C - Oxidizing materials Class D, Division 2, Subdivision A - Very toxic materials (other toxic effects) Class D, Division 2, Subdivision B - Toxic material (other toxic effects) *WHMIS Symbols:* Oxidizing Other Toxic Effects

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components according to GHS: <u>Inorganic Persulfate</u>

CAS Number:
Chemical Formula: Not available
GHS Classification: Ox. Sol. 3, H272; Acute Tox. 4-Orl, H302; Acute Tox. 5-Derm., H313; Skin Irrit. 2, H315; Eye
Irrit. 2, H319; Skin Sens. 1, 317; Resp. Sens. 1, H334; STOT SE 3, H335; Aq. Acute 3, H402
Percent Range (Trade Secret): 90.0 - 100.0
Percent Range Units: weight / weight
PEL: Not available
TLV: 0.1 mg/m3

WHMIS Symbols: OxidizingOther Toxic Effects

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. Remove contaminated clothing. Call physician immediately.
Inhalation: Remove to fresh air.
Ingestion (First Aid): Do not induce vomiting. Give 1-2 glasses of water. Never give anything by mouth to an unconscious person. Call physician immediately.

5. FIRE FIGHTING MEASURES

Flammable Properties: Strong oxidizer. Contact with combustible materials may cause a fire.
Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear. Evacuate area and fight fire from a safe distance.
Extinguishing Media: Water.
Extinguishing Media NOT To Be Used: Not applicable
Fire / Explosion Hazards: May react violently with: combustible materials
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: Stop spilled material from being released to the environment. Cover spilled solid material with sand or other inert material.

Clean-up Technique: 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. Decontaminate the area of the spill with a soap solution.

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Evacuation Procedure: Evacuate local area (15 foot radius or as directed by your facility's emergency response plan) when: a pound or more of loose powder is spilled. If conditions warrant, increase the size of the evacuation. *DOT Emergency Response Guide Number:* 140

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes skin clothing Do not breathe dust. Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

Storage: Store in a cool, dry place. Keep away from: acids combustible materials heat organic material oxidizable materials iron

Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Have an eyewash station nearby. Have a safety shower nearby. Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields

Skin Protection: lab coat disposable latex gloves

Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes skin clothing Do not breathe: dust Wash thoroughly after handling. Keep away from: acids/acid fumes organic materials other combustible materials oxidizable materials **TLV:** 0.1 mg/m3

PEL: Not established

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White to light yellow crystals Physical State: Solid Molecular Weight: Not applicable Odor: None Odor Threshold: Not determined *pH*: 1-2 @ 228 g.L at 25°C Metal Corrosivity: Corrosivity Classification: Not classified as corrosive to metals according to GHS criteria. Steel: Not determined Aluminum: Not determined Specific Gravity/ Relative Density (water = 1; air =1): 1.9 Viscosity: Not available Solubility: Water: 62.12g / 100mL water @ 25°C Acid: Not determined Other: Not determined Partition Coefficient (n-octanol / water): Not determined Coefficient of Water / Oil: Not determined Melting Point: decomposes Decomposition Temperature: Not available **Boiling Point:** Not applicable Vapor Pressure: Not applicable Vapor Density (air = 1): 7.88 *Evaporation Rate (water = 1):* Not applicable Volatile Organic Compounds Content: Not determined Flammable Properties: Strong oxidizer. Contact with combustible materials may cause a fire. Flash Point: Not applicable Method: Not applicable Flammability Limits:

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

Not classified according to GHS criteria.

Oxidizing Properties:

Classified as oxidizer according to GHS.

Reactivity Properties:

Not classified 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: May react violently in contact with: iron Incompatible with: aluminum acids combustible materials hydrogen peroxide halides
 Hazardous Decomposition: Heating to decomposition releases toxic and/or corrosive fumes of: ammonia nitrogen oxides sulfur oxides
 Conditions to Avoid: Extreme temperatures Heating to decomposition.

11. TOXICOLOGICAL INFORMATION

Toxicokinetics, Metabolism and Distribution: No information available Toxicologically Synergistic Products: None reported Acute Toxicity: Route Data Given Below Oral rat LD50 = 689 mg/KgDermal rat LD50 > 2000 mg/Kg Specific Target Organ Toxicity - Single Exposure (STOT-SE): Respiratory Tract Specific Target Organ Toxicity - Repeat Exposure (STOT-RE): Based on classification principles, the classification criteria are not met. Skin Corrosion/Irritation: Irritating to skin. Eye Damage: Irritating to eyes. Sensitization: Respiratory Sensitizer Skin Sensitizer 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:* May cause: burns of the mouth and esophagus Inhalation: May cause: death due to bronchospasm edema pneumonitis Skin Absorption: None Reported Chronic Effects: allergic respiratory reactions allergic skin reactions Medical Conditions Aggravated: Pre-existing: Dermatitis Asthma

12. ECOLOGICAL INFORMATION

Product Ecological Information: Aquatic Acute 3, per supplier SDS **Ingredient Ecological Information:** --No ecological data available for the ingredients of this product.

13. DISPOSAL CONSIDERATIONS

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EPA Waste ID Number: D001

Special Instructions (Disposal): Working in small batches, dilute to 3 to 5 times the volume with cold water. 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 reacted material to the drain. Flush system with plenty of water.

Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash. 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: Ammonium Persulphate Hazard Class: 5.1 Subsidiarv Risk: NA ID Number: UN1444 Packing Group: III T.D.G.: Proper Shipping Name: Oxidizing Solid, N.O.S. Ammonium Persulphate Hazard Class: 5.1 Subsidiary Risk: NA UN Number/PIN: 1479 Packing Group: III *I.C.A.O.:* I.C.A.O. Proper Shipping Name: Ammonium Persulphate Hazard Class: 5.1 Subsidiarv Risk: NA ID Number: UN1444 Packing Group: III I.M.O.: Proper Shipping Name: Ammonium Persulphate Hazard Class: 5.1 Subsidiary Risk: NA ID Number: UN1444 Packing Group: III Marine Pollutant:

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 Fire Hazard *S.A.R.A. Title III Section 313 (40 CFR 372):* This product contains a chemical(s) subject to the reporting requirements of Section 313 of Title III of SARA. Ammonium persulfate

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302 (EHS) TPO (40 CFR 355): Not applicable 304 CERCLA RO (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 RCRA regulated substances. See Section 13, EPA Waste ID Number. 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: Vendor Information. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Technical Judgment. 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. CCINFO RTECS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). List of Dangerous Substances Classified in Annex I of the EEC Directive (67/548) - Classification, Packaging and Labeling of Dangerous Substances, Amended July 1992.

Complete Text of H phrases referred to in Section 3: H272 May intensify fire; oxidiser. H302 Harmful if swallowed. H312 Harmful in contact with skin. H315 Causes skin irritation. H319 Causes serious eye irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. *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: 25 Month: August Year: 2015 MSDS Prepared: MSDS prepared by Product Compliance Department extension 3350 CCOHS Evaluation Note: Not applicable

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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