MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: DPD Free Chlorine Reagent
Catalog Number: 2197846

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)232-2532 8am - 4pm CST

MSDS Number: M00109
Chemical Name: Not applicable
CAS No.: Not applicable
Chemical Formula: Not applicable
Chemical Family: Not applicable
Hazard: May cause sensitization. May cause irritation.
Date of MSDS Preparation:
Day: 22
Month: 08
Year: 2015

2. COMPOSITION / INFORMATION ON INGREDIENTS

Salt of N,N-Diethyl-p-Phenylenediamine
CAS No.: Confidential
TSCA CAS Number: Confidential
Percent Range: 1.0 - 5.0
Percent Range Units: weight / weight
LD50: Oral rat LD50 = 970 mg/kg.
LC50: None reported
TLV: Not established
PEL: Not established
Hazard: May cause sensitization. May cause irritation.

Carbonate Salt
CAS No.: Confidential
TSCA CAS Number: Confidential
Percent Range: 55.0 - 65.0
Percent Range Units: weight / weight
LD50: None reported
LC50: None reported
TLV: Not established
PEL: Not established
Hazard: May cause irritation. Toxic properties unknown.

Sodium Phosphate, Dibasic
CAS No.: 7782-85-6
TSCA CAS Number: 7558-79-4
Percent Range: 30.0 - 40.0
Percent Range Units: weight / weight
LD50: Oral rat LD50 = 12930 mg/kg.
LC50: None reported
TLV: Not established
PEL: Not established
Hazard: May cause irritation.

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Phenylenediaminetetraacetic Acid, Disodium Salt

CAS No.: 6381-92-6
TSCA CAS Number: 139-33-3
Percent Range: 1.0 - 10.0
Percent Range Units: weight / weight
LD50: Oral rat LD50 = 3600 mg/kg
LC50: None reported
TLV: Not established
PEL: Not established
Hazard: May cause irritation.

3. HAZARDS IDENTIFICATION

Emergency Overview:
Appearance: White or light pink powder
Odor: None
MAY CAUSE EYE AND RESPIRATORY TRACT IRRITATION
MAY CAUSE ALLERGIC SKIN REACTION

LIMIS:
Health: 5
Flammability: 0
Reactivity: 0
Protective Equipment: X - See protective equipment, Section 8.

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

Potential Health Effects:
Eye Contact: May cause irritation
Skin Contact: May cause irritation
May cause allergic reaction
Skin Absorption: None reported
Target Organs: None reported
Ingestion: DPD Oral rat LD50 studies revealed decreased locomotor activity, depressed respiration, muscle spasms, loss of righting reflex and death. Autopsies revealed ulcerated stomach, enteritis, gas and congested lungs.
Target Organs: None reported
Inhalation: May cause respiratory tract irritation Effects similar to those of ingestion.
Target Organs: None reported
Medical Conditions Aggravated: Allergy or sensitivity to salts of N,N-Diethyl-p-phenylenediamine Pre-existing: Eye conditions Skin conditions Respiratory conditions
Chronic Effects: DPD may cause allergic skin reactions in some people causing severe skin rash and itching.
Cancer / Reproductive Toxicity Information:
This product does NOT contain any OSHA listed carcinogens.
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: Immediately flush eyes with water for 15 minutes. Call physician.
Skin Contact (First Aid): Wash skin with soap and plenty of water. Call physician if irritation develops.
5. FIRE FIGHTING MEASURES

Flammable Properties: Can burn in air, releasing toxic vapors.
Flash Point: Not applicable
Method: Not applicable
Flammability Limits:
- Lower Explosion Limit: Not applicable
- Upper Explosion Limit: Not applicable
Autoignition Temperature: Not determined
Hazardous Combustion Products: Toxic fumes of: carbon monoxide, carbon dioxide, phosphorus oxides, nitrogen oxides.
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(o)(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.
Clean-up Technique: Scoop up spilled material into a large bucket and dissolve with water. Flush reacted material to the drain with a large excess of water. 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): Mixture contains a component which is regulated as a water pollutant.
DOT / RG (40 CFR 355): Not applicable
D.O.T. Emergency Response Guide Number: Not applicable

7. HANDLING / 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 between 10°C and 25°C. Protect from: light, moisture, heat
Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Have an eyewash station nearby. Have a safety shower nearby. Use general ventilation to minimize exposure to mist, vapor or dust. 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, skin, clothing. Do not breathe dust. Wash thoroughly after handling. Protect from: light, moisture, heat
TLV: Not established
PEL: Not established
9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: White or light pink powder
Physical State: Solid
Molecular Weight: Not applicable
Odor: None
pH of 1% aq soln: 6.35 @ 25°C
Vapor Pressure: Not applicable
Vapor Density (air = 1): Not applicable
Boiling Point: Not applicable
Melting Point: 110°C decmp
Specific Gravity (water = 1): 1.76
Evaporation Rate (water = 1): Not applicable
Volatile Organic Compounds Content: Not applicable
Partition Coefficient (n-octanol / water): Not applicable
Solubility:
Water: Soluble
Acid: Soluble
Other: Not determined
Metal Corrosivity:
Steel: Not determined
Aluminum: Not determined

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.
Conditions to Avoid: Exposure to light. Excess moisture. Heating to decomposition.
Reactivity / Incompatibility: None reported
Hazardous Decomposition: Heating to decomposition releases toxic and/or corrosive fumes of: carbon dioxide, carbon monoxide, phosphorus oxides, nitrogen oxides
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: Salt of DPD Oral rat LD50 = 970 mg/kg; Sodium Phosphate Dibasic Oral Rat LD50 = 17 g/kg; EDTA Disodium Salt Oral Rat LD50 = 2000 mg/kg

12. ECOCLOGICAL INFORMATION

Product Ecological Information: --
No ecological data available for this product.
Ingredient Ecological Information: --
No ecological data available for the ingredients of this product.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: Not applicable
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.
14. TRANSPORT INFORMATION

D.O.T.:  
- D.O.T. Proper Shipping Name: Not Currently Regulated
  - DOT Hazard Class: NA
  - DOT Subsidiary Risk: NA
  - DOT Id Number: NA
  - DOT Packing Group: NA

I.C.A.O.:  
- I.C.A.O. Proper Shipping Name: Not Currently Regulated
  - ICAO Hazard Class: NA
  - ICAO Subsidiary Risk: NA
  - ICAO ID Number: NA
  - ICAO Packing Group: NA

I.M.O.:  
- I.M.O. Proper Shipping Name: Not Currently Regulated
  - I.M.O. Hazard Class: NA
  - I.M.O. Subsidiary Risk: NA
  - I.M.O. ID Number: NA
  - I.M.O. Packing Group: NA

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit  
  - Hazard Class: 9  
  - UN Number: 2316

15. REGULATORY INFORMATION

U.S. Federal Regulations:  
- E.P.A.:  
  - S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370): Immediate (Acute) Health Hazard: Delayed (Chronic) 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): 5000 lbs. Sodium phosphate, dibasic  
  - 304 EHS RQ (40 CFR 355): 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:  
- New Jersey Trade Secret Registry Number 80100131-5001 (Carboxylate Salt) New Jersey Trade Secret Registry Number 80100131-5002 (DPD Salt) New York Trade Secret Registry Number 478 (Carboxylate Salt) New York Trade Secret Registry Number 479 (Carboxylate Salt) This product complies with Pennsylvania Trade Secret Regulations. This product is registered as a trade secret in the state of Illinois. This product is registered as a trade secret in the state of Massachusetts. This product is registered as a trade secret in the state of New York.

National Inventories:  
- U.S. Inventory Status: All ingredients in this product are listed on the TSCA 8(b) Inventory (40 CFR 711):
  - TSCA CAS Number: Not applicable
16. OTHER INFORMATION

**Intended Use:** Determination of Free Chlorine


**Revision Summary:** Updates in Section(s) 14.

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**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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