

## MATERIAL SAFETY DATA SHEET

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## 1. PRODUCT IDENTIFICATION

CATALOG NO.: R-0002  
 PRODUCT NAME: DPD Reagent #2  
 CHEMICAL FAMILY: Acidic organic amine solution

## 2. INGREDIENTS

INGREDIENT	CAS NO.	%	NATURE OF HAZARD
N,N-Diethyl-p-phenylene-diamine sulfate	6283-63-2	<1	Irritant, toxic
Organic acid (trade secret)	Confidential	<10	Irritant acid
Nonhazardous ingredients	NA	<1	None
Deionized water	7732-18-5	to 100	None

## 3. PHYSICAL/CHEMICAL CHARACTERISTICS

STATE: Liquid      APPEARANCE: Clear, colorless      ODOR: None  
 BOILING PT (F): 212      pH: 1.3      SPECIFIC GRAVITY: 1.01  
 VAPOR PRESSURE (mm Hg): 17      VAPOR DENSITY (AIR=1): .65  
 PERCENT VOLATILE BY VOLUME: 99      SOLUBILITY IN WATER: Soluble

## 4. FIRE, EXPLOSION HAZARD AND REACTIVITY DATA

FLASH PT: NA      METHOD: NA  
 FLAMMABLE LIMITS: LEL: NA      UEL: NA  
 EXTINGUISHING MEDIA: NA  
 SPECIAL PROCEDURES: Wear self-contained (positive pressure if available) breathing apparatus and special protective clothing  
 FIRE/EXPLOSION HAZARDS AND HAZARDOUS DECOMPOSITION PRODUCTS: May emit toxic fumes of carbon dioxide, carbon monoxide, nitrogen oxides, phosphine, phosphorus oxides, sulfur oxides. Contact with metals may produce hydrogen gas.  
 NFPA CODE: Health: 1      Flammability: 0      Reactivity: 0      Specific: NA  
 CONDITIONS TO AVOID: Extreme heat, temperatures. Contact with metals, oxidizers, strong caustic.

## 5. HEALTH HAZARD DATA

INGREDIENT: Organic acid  
 TOXICITY: LD50(oral-rat): 2400 mg/kg      LD50(skin-rat): >7940 mg/kg  
 PEL: NE      TLV: NE  
 STEL: NE

INGREDIENT: N,N-Diethyl-p-phenylenediamine sulfate  
 TOXICITY: LD50(unr-rat): 450 mg/kg  
 PEL: NE      TLV: NE  
 STEL: NE

**5. HEALTH HAZARD DATA - continued**

ROUTE(S) OF ENTRY: Inhalation Ingestion X Skin X

TARGET ORGAN(S): Eyes, skin, gastrointestinal tract

CARCINOGENICITY: NTP No IARC No OSHA No

HEALTH HAZARDS AND SYMPTOMS OF EXPOSURE:

EYES: Irritant

SKIN: Irritant. Contact may cause dermatitis.

INGESTION: Irritant, toxic. May cause gastrointestinal irritation, nausea, cramps, diarrhea.

INHALATION: NA

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye and skin conditions

**6. PRECAUTIONARY MEASURES**

PROTECTIVE EQUIPMENT: General purpose gloves, safety glasses, lab coat

HANDLING: Avoid contact with eyes, skin, and clothing. Avoid breathing chemical. Wash thoroughly after handling.

STORAGE: Cool, dry area. Avoid direct sunlight.

**7. EMERGENCY AND FIRST AID PROCEDURES**

EYE AND SKIN CONTACT: Immediately flush eyes with water for 20 minutes or until chemical is removed. Call physician. Wash skin thoroughly with soap and water.

INGESTION: Give large amounts of water or large amounts of water with milk of magnesia. Call physician. DO NOT INDUCE VOMITING. DO NOT give anything by mouth to a person who is unconscious, rapidly losing consciousness, or convulsing.

INHALATION: NA

**8. SPILL AND DISPOSAL PROCEDURES**

SPILL OR RELEASE: Neutralize with soda ash. Absorb with vermiculite or other inert material. Containerize for later disposal.

DISPOSAL: Incineration or other method to comply with all local, state, and federal regulations.

NA = Not applicable

ND = Not determined

NE = Not established

This Material Safety Data Sheet has been prepared in accordance with 29 CFR Part 1910.1200 and contains information believed to be accurate and complete at the date of preparation. However, no warranty is expressed or implied. Advice given under "Spill and Disposal Procedures" assumes compliance with federal, state, and local regulations regarding the disposal of hazardous waste.

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