

MATERIAL SAFETY DATA SHEET

HF scientific, inc.
3170 Metro Parkway
Fort Myers, FL 33916-7597
(239) 337-2116

24 Hour Emergency
Telephone Number
CHEMTREC
1-800-424-9300

SECTION 1 PRODUCT IDENTIFICATION:

PRODUCT NAME: DPD POWDER FOR FREE AND TOTAL ANALYZERS

CATALOG NUMBERS:

HF scientific, inc.: 14275, 09935, 09935H, 09936, 09936H, 09937, 09937H, 09938, 09938H, 09947, 09947H, 09948, 09948H, 09951, 09951H, 09952, 09952H, 09953, 09953H, 09954, 09954H, 09955, 09955H, 09956, 09956H

USA BlueBook

CHEMICAL FAMILY: Not applicable

SYNONYMS: Not applicable

FORMULA:

DPD Salt Confidential 100%

SECTION 2 HAZARDOUS INGREDIENTS

Hazardous Ingredient(s):	OSHA PEL	ACGIH TLV	Other Limits Recommended
DPD* Salt		Not established	None
*(N,N-Diethyl-p-Phenylenediamine)			

SECTION 3 PHYSICAL DATA

BOILING POINT (F): Not applicable
SOLUBILITY IN WATER: Soluble
VAPOR PRESSURE (mm Hg): Not applicable
MELTING POINT: Not found - Decomposes
APPEARANCE AND ODOR: White to pale pink powder, no odor
VAPOR DENSITY (AIR=1): Not applicable
SPECIFIC GRAVITY (H₂O =1): Not available
EVAPORATION RATE: Not applicable

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): Not flammable
FLAMMABLE LIMITS:
LEL: Not applicable **UEL:** Not applicable
EXTINGUISHING MEDIA: Water, dry chemical, alcohol foam, or carbon dioxide.
FIRE FIGHTING PROCEDURES: Suitable to cause of fire. Wear protective clothing and self-contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSIVE HAZARDS: May emit toxic fumes.

SECTION 5 HEALTH HAZARD EFFECTS AND FIRST AID

ROUTE(S) OF ENTRY: Inhalation? Yes. Skin? Yes. Ingestion? Yes.
HEALTH HAZARDS (ACUTE AND CHRONIC): Irritating to eyes and respiratory tract. May cause allergic skin reaction.
CARCINOGENICITY: NTP? IARC Monographs? OSHA Regulated?
Not listed
SIGNS AND SYMPTOMS OF EXPOSURE: Moderately toxic. Rash, irritation of eyes and respiratory tract. May be absorbed through skin and may be sensitizing to skin.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Allergy or sensitivity to salts of DPD.
EMERGENCY FIRST AID PROCEDURES:
Eye And Skin Exposure: Immediately flush eyes with water for 15 minutes. Call physician. Wash skin with soap and plenty of water.
Ingestion: Give large quantities of water or milk. Call physician

immediately.

Inhalation: Remove to fresh air.

SECTION 6 REACTIVITY DATA

STABILITY: Stable under normal conditions of use and storage
CONDITIONS TO AVOID: Exposure to light, heat, and moisture.
INCOMPATIBILITIES (MATERIALS TO AVOID): Strong oxidizing agents
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Toxic fumes
HAZARDOUS POLYMERIZATION: Will not occur

SECTION 7 SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Scoop into a beaker and dissolve in water.
WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Use only with adequate ventilation. Store in a cool, dry, dark place.
OTHER PRECAUTIONS: None

SECTION 8 CONTROL MEASURES

RESPIRATORY PROTECTION: Not necessary in normal use.
VENTILATION SYSTEMS: General mechanical ventilation satisfactory in normal use.
EYE PROTECTION: Safety glasses
SKIN PROTECTION: Rubber gloves
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Lab coat, eye wash, safety shower
WORK/HYGIENIC PRACTICES: Wash well after handling. Avoid skin contact.

NO GUARANTEE IS MADE AS TO THE ACCURACY OF ANY DATA OR STATEMENT CONTAINED HEREIN. WHILE THIS MATERIAL IS FURNISHED IN GOOD FAITH, NO WARRANTY EXPRESSED OR IMPLIED, OR MERCHANTABILITY, FITNESS OR OTHERWISE IS MADE. THIS MATERIAL IS OFFERED ONLY FOR YOUR CONSIDERATION, INVESTIGATION AND VERIFICATION AND HF SCIENTIFIC, INC, INCLUDING ITS DIVISIONS, AFFILIATES AND SUBSIDIARIES, SHALL NOT IN ANY EVENT BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH ITS PUBLICATION. LIKEWISE, NO STATEMENT MADE HEREIN SHALL BE CONSTRUED AS A PERMISSION OR RECOMMENDATION FOR THE USE OF ANY PRODUCTION IN A MANNER THAT MIGHT INFRINGE EXISTING PATENT.

MATERIAL SAFETY DATA SHEET

HF scientific, inc.
3170 Metro Parkway
Fort Myers, FL 33916-7597
(239) 337-2116

24 Hour Emergency
Telephone Number
CHEMTREC
1-800-424-9300

SECTION 1 PRODUCT IDENTIFICATION:**PRODUCT NAME:** INDICATOR SOLUTION FREE / TOTAL**CATALOG NUMBERS:** 09951H, 09952H, 09953H, 09954H, 09955H,
09956H, 25003H**CHEMICAL FAMILY:** Not applicable**SYNONYMS:** Not applicable**CLASS:** UN 2585, Arylsulfonic Acid**SECTION 2 HAZARDOUS INGREDIENTS**

Hazardous Ingredient(s):	OSHA PEL	ACGIH TLV	Other Limits Recommended
Arylsulfonic Acid	15 mg/m ³	ND	

SECTION 3 PHYSICAL DATA**Boiling Point:** Not determined**Solubility In Water:** Totally miscible**Vapor Pressure (mm Hg):** N/A**Melting Point:** Not determined**Appearance And Odor:** White to off white solid**Vapor Density (AIR=1):** N/A**Specific Gravity:** N/A**Percent Volatile By Volume:** ND**Evaporation Rate:** N/A**SECTION 4 FIRE AND EXPLOSION HAZARD DATA****Flash Point:** Not flammable.**Flammable Limits:** None**LEL:** UEL:**Extinguishing Media:** Use media appropriate to cause of fire.**Fire Fighting Procedures:** N/A**Unusual Fire and Explosive Hazards:** None**SECTION 5 HEALTH HAZARD DATA****Route(s) Of Entry:** Inhalation? Yes Skin? Yes Ingestion? Yes**Health Hazards (Acute and Chronic):****Carcinogenicity:** NTP? IARC Monographs? OSHA Regulated?

Not Listed

Signs And Symptoms Of Exposure: N/A**EMERGENCY FIRST AID PROCEDURES:****Eyes:** Immediately flush eyes gently with copious quantities of water for a minimum of 15 minutes. Use fingers to assure that eyelids are separated and that eye is being irrigated. Call a physician.**Skin:** Remove contaminated clothing. Flush contaminated area with copious quantities of water for 15 minutes. Call a physician.**Ingestion:** Do not induce vomiting. Seek medical attention promptly. If vomiting occurs, take steps to avoid aspiration of vomited material into the respiratory tract. To prevent choking, position body so that material is freely ejected. Give milk, water containing milk of magnesia or olive oil.**Inhalation:** Move patient immediately to uncontaminated atmosphere.

Except in minor cases of exposure without symptoms, seek medical advise promptly.

SECTION 6 REACTIVITY DATA**Stability:** Stable**Conditions To Avoid:** None found**Incompatibilities:** Strong alkalis. Alcohols. Aldehydes. Acrylates. Reducing agents. Prolonged contact with aluminum, lead, or zinc may liberate flammable hydrogen.**Hazardous Decomposition Products:** Oxides of sulfur. Toxic fumes.**Hazardous Polymerization:** Will not occur.**SECTION 7 SAFE HANDLING AND USE****Steps To Be Taken In Case Material Is Released Or Spilled:** Sweep up solid. Rinse down drain with large amounts of water. Wash area with water.**Waste Disposal Method:** Dispose of in accordance with local, state, and federal regulations or contact an approved with licensed disposal agency.**Precautions To Be Taken In Handling & Storage:** Use normal safe chemical handling procedures.**Other Precautions:** None**SECTION 8 CONTROL MEASURES****RESPIRATORY PROTECTION:** Not necessary in normal use.**VENTILATION SYSTEMS:** General mechanical ventilation satisfactory in normal use.**EYE PROTECTION:** Safety glasses**SKIN PROTECTION:** Rubber gloves**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Lab coat, eye wash, safety shower**WORK/HYGIENIC PRACTICES:** Wash well after handling. Avoid skin contact.

NO GUARANTEE IS MADE AS TO THE ACCURACY OF ANY DATA OR STATEMENT CONTAINED HEREIN. WHILE THIS MATERIAL IS FURNISHED IN GOOD FAITH, NO WARRANTY EXPRESSED OR IMPLIED, OR MERCHANTABILITY, FITNESS OR OTHERWISE IS MADE. THIS MATERIAL IS OFFERED ONLY FOR YOUR CONSIDERATION, INVESTIGATION AND VERIFICATION AND HF SCIENTIFIC, INC, INCLUDING ITS DIVISIONS, AFFILIATES AND SUBSIDIARIES, SHALL NOT IN ANY EVENT BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH ITS PUBLICATION. LIKEWISE, NO STATEMENT MADE HEREIN SHALL BE CONSTRUED AS A PERMISSION OR RECOMMENDATION FOR THE USE OF ANY PRODUCTION IN A MANNER THAT MIGHT INFRINGE EXISTING PATENT.

DATE: October 5, 2007

REVISION: 0

MATERIAL SAFETY DATA SHEET

HF scientific, inc.
3170 Metro Parkway
Fort Myers, FL 33916-7597
(239) 337-2116

24 Hour Emergency
Telephone Number
CHEMTREC
1-800-424-9300

SECTION 1 PRODUCT IDENTIFICATION:

PRODUCT NAME: TOTAL CHLORINE BUFFER DRY POWDER

CATALOG NUMBERS: 09952H, 09954H, 09956H, 25012H

CHEMICAL FAMILY: Not applicable

SYNONYMS: Not applicable

FORMULA:

Carboxylate Salt
EDTA
Potassium Iodide

Confidential
CAS # 6381-92-6
CAS # 7681-11-0

SECTION 2 HAZARDOUS INGREDIENTS

Hazardous	OSHA PEL	ACGIH TLV	Other Limits
<u>Ingredient(s):</u>			<u>Recommended</u>
Potassium Iodide			
CAS#: 7681-11-0		Not established	

SECTION 3 PHYSICAL DATA

Boiling Point: Not determined

Solubility In Water: Totally miscible

Vapor Pressure (mm Hg): N/A

Melting Point: Not determined

Appearance And Odor: Clear liquid

Vapor Density (AIR=1): N/A

Specific Gravity: 1.22

Percent Volatile By Volume: Similar to water.

Evaporation Rate: Similar to water .

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

Flash Point: Not flammable.

Flammable Limits: None

LEL: UEL:

Extinguishing Media: Use media appropriate to cause of fire.

Fire Fighting Procedures: N/A

Unusual Fire and Explosive Hazards: None

SECTION 5 HEALTH EFFECTS AND FIRST AID

Route(s) Of Entry: Inhalation? Yes. Skin? Yes. Ingestion? Yes.

Health Hazards (Acute And Chronic): Can irritate eyes, skin and mucous membranes. If swallowed, solution may cause gastrointestinal upset.

Carcinogenicity: NTP? N/A IARC Monographs? N/A OSHA Regulated?N/A
Not Listed

Signs and Symptoms Of Exposure: Chronic exposure may cause thyroid adenoma, goiter, iodism, skin rashes, headaches, running nose, weakness, anemia, weight loss and general depression.

Medical Conditions Generally Aggravated By Exposure: Preexisting skin disorders, eye problems or respiratory problems.

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with water for at least 15 minutes; get immediate medical assistance.

Skin: Remove contaminated clothing and wash with soap and water. Flush with water 15 to 20 minutes until chemical is gone. Get medical attention if

irritation develops.

Ingestion: Give several glasses of water and induce vomiting by inserting finger to the back of the throat. Call a physician.

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE!

SECTION 6 REACTIVITY DATA

Stability: Stable

Conditions To Avoid: Keep container tightly closed. Store in a cool, dry ventilated area. Protect from physical damage and direct sunlight.

Incompatibilities: Potassium iodide reacts violently or explosively with many fluorides, perchlorates, alkali metals, strong acids, strong oxidants and diazonium salts.

Hazardous Decomposition Products: Fumes of iodine and potassium oxide and sodium oxide may be released when heated to decomposition

Hazardous Polymerization: Will not occur.

SECTION 7 SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released or Spilled: Ventilate area of the leak or spill. Absorb with sand, vermiculite or other dry absorbent. Dispose of properly.

Waste Disposal Method: Dispose of in accordance with all applicable federal, state and local environmental regulations.

Precautions To Be Taken In Handling & Storage: Keep container tightly closed. Store in cool, dry, well ventilated area away from sunlight. Keep away from heat, acids and oxidizers. Wash thoroughly after handling.

Other Precautions:

SECTION 8 CONTROL MEASURES

RESPIRATORY PROTECTION: Not necessary in normal use.

VENTILATION SYSTEMS: General mechanical ventilation satisfactory in normal use.

EYE PROTECTION: Safety glasses

SKIN PROTECTION: Rubber gloves

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Lab coat, eye wash, safety shower

WORK/HYGIENIC PRACTICES: Wash well after handling. Avoid skin contact.

NO GUARANTEE IS MADE AS TO THE ACCURACY OF ANY DATA OR STATEMENT CONTAINED HEREIN. WHILE THIS MATERIAL IS FURNISHED IN GOOD FAITH, NO WARRANTY EXPRESSED OR IMPLIED, OR MERCHANTABILITY, FITNESS OR OTHERWISE IS MADE. THIS MATERIAL IS OFFERED ONLY FOR YOUR CONSIDERATION, INVESTIGATION AND VERIFICATION AND HF SCIENTIFIC, INC, INCLUDING ITS DIVISIONS, AFFILIATES AND SUBSIDIARIES, SHALL NOT IN ANY EVENT BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH ITS PUBLICATION. LIKEWISE, NO STATEMENT MADE HEREIN SHALL BE CONSTRUED AS A PERMISSION OR RECOMMENDATION FOR THE USE OF ANY PRODUCTION IN A MANNER THAT MIGHT INFRINGE EXISTING PATENT.