

1. IDENTIFICATION:

Product Name: FREE JAW (JUST ADD WATER) CHLORINE BUFFER
CAS Number: Mixture
Catalog Numbers: 09951 09953 09955 25005
Product Use: Analytical / Laboratory Reagent
Manufacturer: HF Scientific, Inc
Address: 3170 Metro Parkway Fort Myers, FL 33916

General Information: 888-203-7248
Transportation Emergency Number: CHEMTREC® 24 hr US 800-424-9300
 CHEMTREC® 24 hr International 703-527-3887

2. HAZARDS IDENTIFICATION

GHS Classification

Health	Environmental	Physical
Acute Toxicity: Category 5 Skin Irritation: Category 3 Eye Irritation: Category 2B	Aquatic Toxicity: None	Flammable Liquid: No

GHS Label

Pictogram: None	Signal Word: WARNING
Hazard Statements May be harmful in contact with skin May be harmful if inhaled Causes mild skin irritation Causes eye irritation	Precautionary Statements IF INHALED: Remove from Exposure and Move to Fresh Air Immediately. If Not Breathing, Give Artificial Respiration. If Breathing is Difficult, Give Oxygen. Get Medical Aid if Cough or Other Symptoms IF IN EYES: Flush Eyes with Plenty of Water for at Least 15 Minutes. Get Medical Aid

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	Cas Number	Weight %
Trisodium Citrate Salt	68-04-2	95%
Ethylenediaminetetraacetic Acid (EDTA)	6381-92-6	5%

4. FIRST AID MEASURES

Eye Contact: : Flush Eyes with Plenty of Water for at Least 15 Minutes. Get Medical Aid
Skin Contact: Flush Skin with Water for at Least 15 Minutes While Removing Contaminated Clothing and Shoes
Inhalation: Remove from Exposure and Move to Fresh Air Immediately. If Not Breathing, Give Artificial Respiration. If Breathing is Difficult, Give Oxygen. Get Medical Aid if Cough or Other Symptoms Appear.
Ingestion: Never Give Anything by Mouth to an Unconscious Person. Get Medical Aid. Do NOT Induce Vomiting. If Conscious and Alert, Rinse Mouth and Give Milk or Water.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water Spray, Dry Chemical, Carbon Dioxide, or Foam
Fire Fighting Procedures: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.
Unusual Fire and Exposure Hazards: None
Combustion Products: None
NFPA Classification HEALTH: 2 FLAMMABLE: 1 REACTIVITY: 0

6. ACCIDENTAL RELEASE MEASURES

Clean Up Spills Immediately Wearing Appropriate Personal Protective Equipment. Sweep Up and Place into a Container for Disposal. Avoid Generating Dusty Conditions. Provide Ventilation.

7. HANDLING AND STORAGE

Handling: Wash Thoroughly After Handling. Remove Contaminated Clothing and Wash Before Reuse. Use in Adequate Ventilation. Minimize Dust Generation and Accumulation. Avoid Contact with Eyes, Skin, and Clothing.
Storage: Keep Container Tightly Closed. Avoid Ingestion and Inhalation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: Not established
Engineering Controls: Maintain General Industrial Hygiene Practices When Using This Product.
Personal Protective Equipment:
Eyes: Safety glasses
Skin: Lab Coat, and Latex or Nitrile Gloves
Respiratory: Dust Mask

9. PHYSICAL AND CHEMICAL PROPERTIES

Flashpoint: N/A
Autoignition Temperature: N/A
Boiling Point: Decomposes >252°C
Melting Point: N/A
Vapor Pressure: N/A

Vapor Density: N/A
% Solubility in Water: Soluble

Pour Point: N/A
Molecular Formula: Mixture
Odor / Appearance: Solid odorless white powder

Lower Flammability Limit: N/A
Upper Flammability Limit: N/A
Specific Gravity: N/A
% Volatile: N/A
Evaporation Rate (Water=1): N/A
Viscosity: N/A
Octanol / Water Partition Coefficient: N/A
pH: 6-7
Molecular Weight: Mixture

10. STABILITY AND REACTIVITY

Stability / Incompatibility: Stable at Room Temperature in Closed Containers Under Normal Storage and Handling Conditions.
Hazardous Reactions / Decomposition Products: None

11. TOXICOLOGICAL INFORMATION

Symptoms of Overexposure: Irritation of eyes, skin and respiratory tract.
Acute Effects: Irritation of eyes, skin and respiratory tract.
Eye Contact: Irritation of eyes.
Skin Contact: Irritation of skin
Inhalation: Irritation of respiratory tract.
Ingestion: N/A
Target Organs Effects: Eyes, Skin and Respiratory Tract
Chronic Effects: N/A
Medical Conditions Aggravated by Exposure: Pre-Existing Eye, Skin, or Respiratory System Conditions
Acute Toxicity Values: N/A

12. ECOLOGICAL INFORMATION

No Ecological Data Available

13. DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with Federal, State and Local Regulations.

14. TRANSPORT INFORMATION

US DOT (United States Department of Transportation): Not regulated
IATA (International Air Transport Association): Not regulated
IMO (International Maritime Organization): Not regulated

15. REGULATORY INFORMATION

CERCLA: None reported
SARA/Title III: None
TSCA Inventory: None
Cal. Proposition 65: None
WHMIS: N/A
DSL: N/A
NDSL: N/A

EUROPEAN INFORMATION:

RISK PHRASES: R 36/38 Irritating to Eyes and Skin
SAFETY PHRASES: S 26 In Case of Contact with Eyes, Rinse Immediately with Plenty of Water and Seek Medical Advice. S37/39 Wear Suitable Gloves and Eye/Face Protection

16. OTHER INFORMATION

THE ABOVE INFORMATION IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. ALL PRODUCTS ARE OFFERED IN ACCORDANCE WITH THE MANUFACTURER'S CURRENT PRODUCTION SPECIFICATIONS AND ARE INTENDED SOLELY FOR USE IN ANALYTICAL TESTING. THE MANUFACTURER SHALL IN NO EVENT BE LIABLE FOR ANY INJURY, LOSS OR DAMAGE RESULTING FROM THE HANDLING, USE OR MISUSE OF THESE PRODUCTS.

1. IDENTIFICATION:

Product Name: FREE / TOTAL JAW (JUST ADD WATER) INDICATOR
Synonyms: p-Toluenesulfonic Acid
CAS Number: 6192-52-5
Catalog Numbers: 09951 09952 09953 09954 09955 09956 25003 09956T 09992

Product Use: Analytical / Laboratory Reagent
Manufacturer: HF Scientific, Inc
Address: 3170 Metro Parkway Fort Myers, FL 33916

General Information: 888-203-7248
Transportation Emergency Number: CHEMTREC® 24 hr US 800-424-9300
 CHEMTREC® 24 hr International 703-527-3887

2. HAZARDS IDENTIFICATION

GHS Classification

Health	Environmental	Physical
Acute Toxicity: Category 4 Skin Irritation: Category 1 Eyes Irritation: Category 1 Specific target organ – single: Category 3	Aquatic Toxicity: None	Flammable Liquid: No

GHS Label

Pictogram:	Signal Word:
	DANGER WARNING
Hazard Statements	Precautionary Statements
Harmful if swallowed Harmful in contact with skin Harmful if inhaled Causes severe skin burns and eye damage Causes serious eye damage May cause respiratory irritation	IF SWALLOWED Do NOT Induce Vomiting Unless Directed by Medical Personnel. Never Give Anything By Mouth to an Unconscious Person. Get Medical Attention. IF ON SKIN Immediately Flush Skin with Plenty of Water for at Least 15 Minutes While Removing Contaminated Clothing and Shoes. Wash Clothing Before Reuse. Get Medical Attention. IF INHALED Remove to Fresh Air. If Not Breathing, Give Artificial Respiration. If Breathing is Difficult, Give Oxygen. Get Medical Attention. IF IN EYES Immediately Flush Eyes with Plenty of Water for at Least 15 Minutes. Get Medical Attention. STORE in a well-ventilated area. Dispose of container in accordance with local / regional / national / international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	Cas Number	Weight %
p-Toluenesulfonic Acid	6192-52-5	100%

4. FIRST AID MEASURES

Eye Contact: Immediately Flush Eyes with Plenty of Water for at Least 15 Minutes. Get Medical Attention.
Skin Contact: Immediately Flush Skin with Plenty of Water for at Least 15 Minutes While Removing Contaminated Clothing and Shoes. Wash Clothing Before Reuse. Get Medical Attention.
Inhalation: Remove to Fresh Air. If Not Breathing, Give Artificial Respiration. If Breathing is Difficult, Give Oxygen. Get Medical Attention.
Ingestion: Do NOT Induce Vomiting Unless Directed by Medical Personnel. Never Give Anything By Mouth to an Unconscious Person. Get Medical Attention.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Dry Chemical, Water Spray, or Foam
Fire Fighting Procedures: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.
Unusual Fire and Exposure Hazards: None
Combustion Products: Carbon oxides, Sulphur oxides
NFPA Classification HEALTH: 3 **FLAMMABLE:** 1 **REACTIVITY:** 1

6. ACCIDENTAL RELEASE MEASURES

Sweep Up Material and Place in a Container for Disposal. Material May Neutralized with Dilute Sodium Carbonate. Wear Personal Protective Equipment such as Safety Glasses, Latex or Nitrile Gloves, Lab Coat, and Dust Mask.

7. HANDLING AND STORAGE

Handling: Keep Container Dry. Keep Away from Heat and Sources of Ignition. Do Not Ingest. Avoid Breathing Dust. Avoid Contact with Eyes and Skin.
Storage: Keep Container Tightly Closed and Store in a Cool, Well Ventilated Area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: Not established
Engineering Controls: Maintain General Industrial Hygiene Practices When Using This Product.
Personal Protective Equipment:
Eyes: Safety glasses
Skin: Lab Coat, and Latex or Nitrile Gloves
Respiratory: Dust Mask

9. PHYSICAL AND CHEMICAL PROPERTIES

Flashpoint: >250°C (446°F)
Autoignition Temperature: N/A
Boiling Point: 140°C (284°F)
Melting Point: 107°C (225°F)
Vapor Pressure: N/A

Vapor Density: N/A
% Solubility in Water: Soluble in water

Pour Point: N/A
Molecular Formula: C₇H₈O₃S · H₂O
Odor / Appearance: Solid white powder with slight odor

Lower Flammability Limit: N/A
Upper Flammability Limit: N/A
Specific Gravity: 0.72 (Water=1)
% Volatile: N/A
Evaporation Rate (Water=1): N/A
Viscosity: N/A
Octanol / Water Partition Coefficient: N/A
pH: 1-2, Acidic
Molecular Weight: 190.22 g/mol

10. STABILITY AND REACTIVITY

Stability / Incompatibility: Product is Stable Under Normal Handling and Storage Conditions. May Be Combustible at High Temperature.
Hazardous Reactions / Decomposition Products: None

11. TOXICOLOGICAL INFORMATION

Symptoms of Overexposure: Irritation and burns of eyes, skin and respiratory tract.
Acute Effects: Corrosive. May Cause Burns of the Eyes, Skin, and Respiratory Tract.
Eye Contact: Irritation and burns of eyes.
Skin Contact: Irritation and burns of skin
Inhalation: Irritation and burns of respiratory tract.
Ingestion: N/A
Target Organs Effects: Eyes, Skin and Respiratory Tract
Chronic Effects: Repeated Inhalation of Dust Can Produce Varying Degree of Respiratory Irritation or Lung Damage
Medical Conditions Aggravated by Exposure: Pre-Existing Eye, Skin, or Respiratory System Conditions
Acute Toxicity Values: N/A

12. ECOLOGICAL INFORMATION

No Ecological Data Available

13. DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with Federal, State and Local Regulations.

14. TRANSPORT INFORMATION

US DOT (United States Department of Transportation):
PROPER SHIPPING NAME: Aryl Sulfonic Acids, Solid
HAZARD CLASS: 8 **UN NUMBER:** UN2585 **PACKING GROUP:** III

IATA (International Air Transport Association):
PROPER SHIPPING NAME: Arylsulphonic Acids, Solid
HAZARD CLASS: 8 **UN NUMBER:** UN2585 **PACKING GROUP:** III

IMO (International Maritime Organization):
PROPER SHIPPING NAME: Arylsulphonic Acids, Solid
HAZARD CLASS: 8 **UN NUMBER:** UN2585 **PACKING GROUP:** III

15. REGULATORY INFORMATION

DSCL (EEC): R36/37/38-Irritating to Eyes, Respiratory System, and Skin.
S26-In Case of Contact with Eyes, Rinse Immediately with Plenty of Water and Seek Medical Advice.
S28-After Contact with Skin, Wash Immediately with Plenty of Water.
S36/37/39-Wear Suitable Protective Clothing, Gloves, and Eye/Face Protection.

US / CANADA INFORMATION:

OSHA: Hazardous By Definition of Hazard Communication Standard (29 CFR 1910.1200)

WHMIS (Canada): CLASS E: Corrosive Solid

16. OTHER INFORMATION

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25011 Rev. 5 July 16th, 2013

1. IDENTIFICATION:

Product Name: DPD POWDER FOR FREE AND TOTAL ANALYZERS

Synonyms: N,N-Diethyl-p-phenylenediamine Sulfate Salt

4-Amino-N,N-diethylanilinesulfate salt

CAS Number: 6283-63-2

Catalog Numbers: 14275 09935 09936 09937 09938 00947 00948
09951 09951H 09952 09952H 09953 09953H 09954
09954H 09955 09955H 09956 09956H 09991 09942
09992 09956T 09991T

Product Use: Analytical / Laboratory Reagent

Manufacturer: HF Scientific, Inc

Address: 3170 Metro Parkway Fort Myers, FL 33916

General Information: 888-203-7248

Transportation Emergency Number: CHEMTREC® 24 hr US 800-424-9300

CHEMTREC® 24 hr International 703-527-3887

2. HAZARDS IDENTIFICATION

GHS Classification

Health	Environmental	Physical
Acute Toxicity: Category 5 Acute Toxicity (oral): Category 4 Skin Irritation: Category 3 Skin Sensitizer: Category 1B Eye Irritation: Category 2B Specific Target Organ Toxicity: Category 3	Aquatic Toxicity: None	Flammable Liquid: No

GHS Label

Pictogram:	Signal Word:
	WARNING
Hazard Statements	Precautionary Statements
Harmful if swallowed May be harmful in contact with skin May be harmful if inhaled Causes mild skin irritation May cause allergic skin reaction Causes eye irritation May cause respiratory irritation	IF SWALLOWED Rinse Mouth with Water. Consult a Physician. Never Give Anything By Mouth to an Unconscious Person. IF ON SKIN wash Thoroughly With Soap and Water. Consult a Physician. IF INHALED Remove to Fresh Air. If Not Breathing, Give Artificial Respiration. Consult a Physician. IF IN EYES Rinse Thoroughly With Plenty of Water for at Least 15 Minutes. Consult a Physician. Store in a well-ventilated place. Dispose of contents/container in a manner consistent with Federal, State and Local Regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	Cas Number	Weight %
N,N-Diethyl-p-phenylenediamine Sulfate Salt	6283-63-2	100%

4. FIRST AID MEASURES

Eye Contact: : Rinse Thoroughly With Plenty of Water for at Least 15 Minutes. Consult a Physician.

Skin Contact: Wash Thoroughly With Soap and Water. Consult a Physician.

Inhalation: Remove to Fresh Air. If Not Breathing, Give Artificial Respiration. Consult a Physician.

Ingestion: Never Give Anything By Mouth to an Unconscious Person. Rinse Mouth with Water. Consult a Physician.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water, Alcohol-Resistant Foam, Dry Chemical or Carbon Dioxide

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

Unusual Fire and Exposure Hazards: During a fire, this product decomposes to form toxic gases.

Combustion Products: Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides

NFPA Classification HEALTH: 2 **FLAMMABLE:** 0 **REACTIVITY:** 0

6. ACCIDENTAL RELEASE MEASURES

Use Personal Protective Equipment Such as Safety Glasses, Dust Mask, Latex or Nitrile Gloves, and Lab Coat. Avoid Dust Formation. Avoid Breathing Dust. Ensure Adequate Ventilation. Pick Up and Arrange Disposal Without Creating Dust. Keep in Suitable, Closed Containers for Disposal.

7. HANDLING AND STORAGE

Handling: Avoid Formation of Dust and Aerosols. Provide Appropriate Exhaust Ventilation at Places Where Dust is Formed. Normal Measures for Preventive Fire Protection.

Storage: Keep Container Tightly Closed in a Dry, Well Ventilated Place. Light and Moisture Sensitive.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: Not established

Engineering Controls: Maintain General Industrial Hygiene Practices When Using This Product.

Personal Protective Equipment:

Eyes: Safety glasses

Skin: Lab Coat, and Latex or Nitrile Gloves

Respiratory: Dust Mask

9. PHYSICAL AND CHEMICAL PROPERTIES

Flashpoint: N/A

Autoignition Temperature: N/A

Boiling Point: N/A

Melting Point: 184-187°C (363-369 °F)

Vapor Pressure: N/A

Vapor Density: N/A

% Solubility in Water: N/A

Pour Point: N/A

Molecular Formula: C₁₀H₁₆N₂ · H₂SO₄

Odor / Appearance: Solid white powder

Lower Flammability Limit: N/A

Upper Flammability Limit: N/A

Specific Gravity: N/A

% Volatile: N/A

Evaporation Rate (Water=1): N/A

Viscosity: N/A

Octanol / Water Partition Coefficient: N/A

pH: N/A

Molecular Weight: 262.33 g/mol

10. STABILITY AND REACTIVITY

Stability / Incompatibility: Stable Under Recommended Storage Conditions. Avoid Strong Oxidizing Agents.

Hazardous Reactions / Decomposition Products: Hazardous Decomposition Products Formed Under Fire Conditions Such as Carbon Oxides, Nitrogen Oxides, and Sulfur Oxides.

11. TOXICOLOGICAL INFORMATION

Symptoms of Overexposure: Irritation and redness of eye and skin. Irritation of respiratory tract.

Acute Effects: Irritation and redness of eyes, skin and gastrointestinal tract.

Eye Contact: Irritation and redness of eyes.

Skin Contact: Irritation and redness of skin

Inhalation: Irritation of respiratory tract.

Ingestion: Toxic if swallowed

Target Organs Effects: Eyes, Skin and Respiratory Tract

Chronic Effects: May be Toxic if Ingested. May Cause Allergic Reaction.

Medical Conditions Aggravated by Exposure: Pre-Existing Eye, Skin, or Respiratory System Conditions

Acute Toxicity Values: N/A

12. ECOLOGICAL INFORMATION

No Ecological Data Available

13. DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with Federal, State and Local Regulations.

14. TRANSPORT INFORMATION

US DOT (United States Department of Transportation): Not regulated

IATA (International Air Transport Association): Not regulated

IMO (International Maritime Organization): Not regulated

15. REGULATORY INFORMATION

CERCLA: None reported

SARA/Title III: Acute Health Hazard.

TSCA Inventory: Listed

Cal. Proposition 65: None

WHMIS: N/A

DSL: N/A

NDSL: N/A

16. OTHER INFORMATION

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0344 Rev. 11 July 5th, 2013