

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 10.24.2014

**Bromcresol Green / Methyl Red Indicator**

**SECTION 1: Identification of the substance/mixture and of the supplier**

**Product name:** Bromcresol Green / Methyl Red Indicator

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** FTR80

**Recommended uses of the product and restrictions on use:**

**Manufacturer Details:**

AquaPhoenix Scientific  
9 Barnhart Drive, Hanover, PA 17331  
(717) 632-1291

**Supplier Details:**

Fremont Industries, Inc.  
4400 Valley Industrial Blvd. N., Shakopee, MN 55379  
(952) 445-4121

**Emergency telephone number:**

Emergency Telephone (800) 255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**

Not classified for physical or health hazards under GHS.

**Signal word:** None

**Hazard statements:** None

**Precautionary statements:**

If medical advice is needed have product container or label at hand.

Keep out of reach of children.

Read label before use.

Do not eat, drink or smoke when using this product.

**Other Non-GHS Classification:** None

**SECTION 3: Composition/information on ingredients**

**Ingredients:**

<b>Ingredients:</b>		
CAS 62625-32-5	Bromcresol Green, Sodium Salt	0.06 %
CAS 7732-18-5	Deionized Water	>98 %
CAS 845-10-3	Methyl Red, Sodium Salt, ACS	0.04 %
Percentages are by weight		

**SECTION 4: First aid measures**

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**Description of first aid measures**

**After inhalation:**

Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**After skin contact:**

Wash affected area with soap and water. Rinse thoroughly. Seek medical attention if irritation, discomfort or vomiting persists. Flush with water for 15 minutes.

**After eye contact:**

Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention if irritation persists or if concerned. Immediately get medical assistance.

**After swallowing:**

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists. Dilute with water or milk. Seek medical attention immediately.

**Most important symptoms and effects, both acute and delayed:**

Irritation. Nausea. Headache. Shortness of breath.

**Indication of any immediate medical attention and special treatment needed:**

If seeking medical attention, provide SDS document to physician. Notes to Physician: Treat symptomatically.

**SECTION 5: Firefighting measures**

**Extinguishing media**

**Suitable extinguishing agents:**

If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.

**Unsuitable extinguishing agents:**

**Special hazards arising from the substance or mixture:**

Combustion products may include carbon oxides or other toxic vapors.

**Advice for firefighters:**

**Protective equipment:**

**Additional information (precautions):**

Move product containers away from fire or keep cool with water spray as a protective measure, where feasible.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Avoid contact with skin, eyes, and clothing. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent. Transfer to a disposal or recovery container.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13.

**Methods and material for containment and cleaning up:**

If in a laboratory setting, follow Chemical Hygiene Plan procedures. Collect liquids using vacuum or by use of

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absorbents. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor.

**Reference to other sections:**

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

Prevent formation of aerosols. Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. If in a laboratory setting, follow Chemical Hygiene Plan. Use only in well ventilated areas. Avoid splashes or spray in enclosed areas. Wash hands after handling. Avoid contact with eyes, skin, and clothing. Do not mix with bases.

**Conditions for safe storage, including any incompatibilities:**

Store in a cool location. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store away from oxidizing agents. Store in cool, dry conditions in well sealed containers. Keep container tightly closed. Protect from freezing and physical damage.

**SECTION 8: Exposure controls/personal protection**



**Control parameters:**

**Appropriate engineering controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

**Respiratory protection:**

Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable.

**Protection of skin:**

The glove material has to be impermeable and resistant to the product/the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**Eye protection:**

Safety glasses with side shields or goggles.

**General hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources.

Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	Dark green liquid	<b>Explosion limit lower: Explosion limit upper:</b>	0 Vol % 0 Vol %
<b>Odor:</b>	Odorless	<b>Vapor pressure at 20°C:</b>	2.3 kPa (@ 20°C) or 23 hPa (17 mm Hg) at 20 °C (68 °F)
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	0.62 (Air = 1)

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<b>pH-value:</b>	Approximately	<b>Relative density:</b>	1 (Water = 1)
<b>Melting/Freezing point:</b>	0 °C (32 °F)	<b>Solubilities:</b>	Infinite in water.
<b>Boiling point/Boiling range:</b>	100°C (212°F)	<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>Flash point (closed cup):</b>	Not applicable	<b>Auto/Self-ignition temperature:</b>	Not determined
<b>Evaporation rate:</b>	Not determined	<b>Decomposition temperature:</b>	Not determined
<b>Flammability (solid, gaseous):</b>	Not applicable	<b>Viscosity:</b>	a. Kinematic: Not determined b. Dynamic: 0.952 mPas at 20 °C (68 °F)
<b>Density at 20°C:</b>	1 g/cm³ (8.345 lbs/gal) at 20 °C (68 °F)		

**SECTION 10: Stability and reactivity**

**Reactivity:**

**Chemical stability:**

No decomposition if used and stored according to specifications.

**Possible hazardous reactions:**

**Conditions to avoid:**

Store away from oxidizing agents, strong acids or bases.

**Incompatible materials:**

Strong acids. Strong bases.

**Hazardous decomposition products:**

Carbon oxides (CO, CO2).

**SECTION 11: Toxicological information**

**Acute Toxicity:** None

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:** No additional information.

**Serious eye damage/irritation:** No additional information.

**Respiratory or skin sensitization:** No additional information.

**Carcinogenicity:**

**Germ cell mutagenicity:** No additional information.

**Reproductive Toxicity:** No additional information.

**STOT-single and repeated exposure:** No additional information.

**Additional toxicological information:**

No additional information.

**SECTION 12: Ecological information**

**Ecotoxicity:** No additional information.

**Persistence and degradability:**

Readily degradable in the environment.

**Bioaccumulative potential:**

**Mobility in soil:**

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Aqueous solution has high mobility in soil.

**Other adverse effects:**

**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

Product/containers must not be disposed together with household garbage. Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product.

**SECTION 14: Transport information**

**US DOT**

**UN Number:**

ADR, ADN, DOT, IMDG, IATA

Not Regulated.

**Limited Quantity Exception:**

None

**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Not Regulated.

**Hazard Class:**

**Packing Group:** Not Regulated.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Not Regulated.

**Hazard Class:**

**Packing Group:** Not Regulated.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

**SECTION 15: Regulatory information**

**United States (USA)**

**SARA Section 311/312 (Specific toxic chemical listings):**

None of the ingredients are listed.

**SARA Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

**RCRA (hazardous waste code):**

None of the ingredients are listed.

**TSCA (Toxic Substances Control Act) :**

All ingredients are listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**

None of the ingredients are listed.

**Proposition 65 (California):**

**Chemicals known to cause cancer:**

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None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**Canada**

**Canadian Domestic Substances List (DSL) :**

All ingredients are listed.

**SECTION 16: Other information**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**NFPA: 0-0-0**

**HMIS: 0-0-0**

**GHS Full Text Phrases:**

**Abbreviations and Acronyms:**

IMDG International Maritime Code for Dangerous Goods.

IATA International Air Transport Association.

GHS Globally Harmonized System of Classification and Labelling of Chemicals.

ACGIH American Conference of Governmental Industrial Hygienists.

CAS Chemical Abstracts Service (division of the American Chemical Society).

NFPA National Fire Protection Association (USA).

HMIS Hazardous Materials Identification System (USA).

WHMIS Workplace Hazardous Materials Information System (Canada).

DNEL Derived No-Effect Level (REACH).

PNEC. Predicted No-Effect Concentration (REACH).

CFR Code of Federal Regulations (USA).

SARA Superfund Amendments and Reauthorization Act (USA).

RCRA. Resource Conservation and Recovery Act (USA).

TSCA. Toxic Substances Control Act (USA).

NPRI National Pollutant Release Inventory (Canada).

DOT US Department of Transportation.

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**Sulfuric Acid, 0.15N**

**SECTION 1: Identification of the substance/mixture and of the supplier**

**Product name:** Sulfuric Acid, 0.15N

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** FTR41-B

**Recommended uses of the product and restrictions on use:**

**Manufacturer Details:**

AquaPhoenix Scientific, Inc.

9 Barnhart Drive

Hanover, PA 17331

1-717-632-1291

**Supplier Details:**

Fremont Industries, Inc.

4400 Valley Industrial Blvd. N., Shakopee, MN 55379

(952) 445-4121

**Emergency telephone number:**

**ChemTel: (24-hour) (US and Canada)**

1-(800)-255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**



**Environmentally Damaging**  
Corrosive to metals, category 1



**Corrosive**  
Skin corrosion, category 1A  
Serious eye damage, category 1

Corr. to Metals 1.

Eye. Irrit 2A.

Skin. Irrit 2.

**Signal word:** Danger

**Hazard statements:**

May be corrosive to metals.

Causes skin irritation.

Causes serious eye irritation.

**Precautionary statements:**

If medical advice is needed have product container or label at hand.

Keep out of reach of children.

Read label before use.

Wear protective gloves/protective clothing/eye protection/face protection.

Keep only in original container.

Wash skin thoroughly after handling.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.

Continue rinsing.

**IF ON SKIN:** Wash with soap and water.

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Specific treatment (see supplemental first aid instructions on this label).  
 If skin irritation occurs: Get medical advice/attention.  
 Take off contaminated clothing and wash before reuse.  
 Absorb spillage to prevent material damage.

**Other Non-GHS Classification:** None

**SECTION 3: Composition/information on ingredients**

**Ingredients:**

<b>Ingredients:</b>		
CAS 7664-93-9	Sulfuric Acid, ACS	<0.77 %
CAS 7732-18-5	Deionized Water	>99.23 %
Percentages are by weight		

**SECTION 4: First aid measures**

**Description of first aid measures**

**After inhalation:**

Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Loosen clothing and place exposed in a comfortable position. Seek medical assistance if cough or other symptoms appear.

**After skin contact:**

Continue rinsing while removing contaminated clothing and shoes. Immediately seek medical attention. Wash hands and exposed skin with soap and plenty of water.

**After eye contact:**

Immediately seek medical attention. Protect unexposed eye. Flush exposed eye gently using water for 15-20 minutes. Remove contact lenses, if present and easy to do, and continue rinsing.

**After swallowing:**

Immediately seek medical attention. Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed:**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, pulmonary edema. Vomiting. Irritation. Shortness of breath. Headache. Nausea. Dizziness. Stomach - Irregularities - Based on Human Evidence.

**Indication of any immediate medical attention and special treatment needed:**

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

**SECTION 5: Firefighting measures**

**Extinguishing media**

**Suitable extinguishing agents:**

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

**Unsuitable extinguishing agents:**

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**Sulfuric Acid, 0.15N**

**Special hazards arising from the substance or mixture:**

Thermal decomposition can lead to release of irritating gases and vapors.

**Advice for firefighters:**

**Protective equipment:**

Wear protective eyeware, gloves, and clothing. Refer to Section 8.

**Additional information (precautions):**

Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation. Ensure that air-handling systems are operational.

**Environmental precautions:**

Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

**Methods and material for containment and cleaning up:**

Soak up with inert absorbent material and dispose of as hazardous waste. Wear protective eyeware, gloves, and clothing. Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Containerize for disposal. Refer to Section 13. Keep in suitable closed containers for disposal. Refer to Section 8.

**Reference to other sections:**

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Do not eat, drink, smoke, or use personal products when handling chemical substances. Refer to Section 13.

**Conditions for safe storage, including any incompatibilities:**

Store in a cool location. Keep away from food and beverages. Protect from freezing and physical damage. Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible materials.

**SECTION 8: Exposure controls/personal protection**



**Control parameters:**

7664-93-9, Sulfuric Acid, ACS., OSHA PEL: 1mg/m<sup>3</sup>.  
7664-93-9, Sulfuric Acid, ACS., ACGIH TLV: 1 mg/m<sup>3</sup>.

**Appropriate engineering controls:**

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

**Respiratory protection:**

Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

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<b>Protection of skin:</b>	Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.
<b>Eye protection:</b>	Face shield and tight fitting goggles are appropriate eye protection. Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
<b>General hygienic measures:</b>	Perform routine housekeeping. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes, and clothing. Before re-wearing wash contaminated clothing.

### SECTION 9: Physical and chemical properties

<b>Appearance (physical state, color):</b>	Clear, colorless liquid	<b>Explosion limit lower:</b> <b>Explosion limit upper:</b>	Not determined Not determined
<b>Odor:</b>	Odorless	<b>Vapor pressure at 20°C:</b>	Not determined
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	Not determined
<b>pH-value:</b>	<2	<b>Relative density:</b>	Not determined
<b>Melting/Freezing point:</b>	Approximately 0 °C	<b>Solubilities:</b>	Soluble in water.
<b>Boiling point/Boiling range:</b>	Approximately 100 °C	<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>Flash point (closed cup):</b>	Not determined	<b>Auto/Self-ignition temperature:</b>	Not determined
<b>Evaporation rate:</b>	Not determined	<b>Decomposition temperature:</b>	Not determined
<b>Flammability (solid, gaseous):</b>	Not determined	<b>Viscosity:</b>	a. Kinematic: Not determined b. Dynamic: Not determined
<b>Density at 20°C:</b>	Not determined		

### SECTION 10: Stability and reactivity

#### Reactivity:

Reacts violently with Cyclopentadiene, Cyclopentanone oxime, Nitroaryl amines, Hexolithium disilicide, Phosphorous(III) oxide, Powdered metals.

#### Chemical stability:

Stable under normal conditions.

#### Possible hazardous reactions:

None under normal processing.

#### Conditions to avoid:

Incompatible materials.

#### Incompatible materials:

Bases, Halides, Organic materials, Carbides, fulminates, Nitrates, picrates, Cyanides, Chlorates, alkali halides, Zinc salts. Permanganates (potassium permanganate), Hydrogen peroxide, Azides, Perchlorates., Nitromethane, Phosphorous. Cyclopentadiene, Cyclopentanone oxime, Nitroaryl amines, Hexolithium disilicide, Phosphorous(III) oxide, Powdered metals.

#### Hazardous decomposition products:

Sulfur oxides.

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**Effective date : 02.18.2015****Sulfuric Acid, 0.15N****SECTION 11: Toxicological information****Acute Toxicity:** No additional information.**Chronic Toxicity:** No additional information.**Skin corrosion/irritation:**

Skin - Rabbit Result: Extremely corrosive and destructive to tissue 7664-93-9.

**Serious eye damage/irritation:**

Eyes - Rabbit Result: Corrosive to eyes 7664-93-9.

**Respiratory or skin sensitization:** No additional information.**Carcinogenicity:****Germ cell mutagenicity:** No additional information.**Reproductive Toxicity:** No additional information.**STOT-single and repeated exposure:** No additional information.**Additional toxicological information:**

No additional information.

**SECTION 12: Ecological information****Ecotoxicity:**

7664-93-9, LC50 - Gambusia affinis (Mosquito fish) - 42 mg/l - 96 h.

7664-93-9, EC50 - Daphnia magna (Water flea) - 29 mg/l - 24 h.

**Persistence and degradability:****Bioaccumulative potential:****Mobility in soil:****Other adverse effects:****SECTION 13: Disposal considerations****Waste disposal recommendations:**

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed together with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification. Neutralize with soda ash or calcium carbonate.

**SECTION 14: Transport information****US DOT****UN Number:**

ADR, ADN, DOT, IMDG, IATA

Not Regulated

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<b>Limited Quantity Exception:</b>	None
<b>Bulk:</b>	<b>Non Bulk:</b>
<b>RQ (if applicable):</b> None	<b>RQ (if applicable):</b> None
<b>Proper shipping Name:</b> Not Regulated.	<b>Proper shipping Name:</b> Not Regulated.
<b>Hazard Class:</b>	<b>Hazard Class:</b>
<b>Packing Group:</b> Not Regulated.	<b>Packing Group:</b> Not Regulated.
<b>Marine Pollutant (if applicable):</b> No additional information.	<b>Marine Pollutant (if applicable):</b> No additional information.
<b>Comments:</b> None	<b>Comments:</b> None

**SECTION 15: Regulatory information**

**United States (USA)**

**SARA Section 311/312 (Specific toxic chemical listings):**

Acute,Chronic

**SARA Section 313 (Specific toxic chemical listings):**

7664-93-9 Sulfuric acid.

**RCRA (hazardous waste code):**

None of the ingredients are listed.

**TSCA (Toxic Substances Control Act) :**

All ingredients are listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**

7664-93-9 Sulfuric acid 1000 lbs.

**Proposition 65 (California):**

**Chemicals known to cause cancer:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**Canada**

**Canadian Domestic Substances List (DSL) :**

All ingredients are listed.

**SECTION 16: Other information**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety

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information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**NFPA:** 1-0-0

**HMIS:** 1-0-0

**GHS Full Text Phrases:**

**Abbreviations and Acronyms:**



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**Phenolphthalein Indicator Solution,**

**SECTION 1: Identification of the substance/mixture and of the supplier**

**Product name:** Phenolphthalein Indicator Solution,

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** FTR12-B

**Recommended uses of the product and restrictions on use:**

**Manufacturer Details:**

AquaPhoenix Scientific, Inc.

9 Barnhart Drive

Hanover, PA 17331

1-717-632-1291

**Supplier Details:**

Fremont Industries, Inc.

4400 Valley Industrial Blvd. N., Shakopee, MN 55379

(952) 445-4121

**Emergency telephone number:**

**ChemTel: (24-hour) (US and Canada)**

1-(800)-255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**



**Flammable**



**Irritant**



**Health hazard**

Acute toxicity (inhalation), category 4

Flammable liquids, category 3

Eye irritation, category 2A

Specific target organ toxicity - single exposure, category 1

Specific target organ toxicity - single exposure, category 3, central nervous system

Acute toxicity (oral), category 4

Acute toxicity (dermal), category 4

**Signal word:** Danger

**Hazard statements:**

Highly flammable liquid and vapor.

Harmful if swallowed.

Harmful in contact with skin.

Harmful if inhaled.

Causes serious eye irritation.

Causes damage to organs.

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**Phenolphthalein Indicator Solution,**

May cause drowsiness or dizziness.

**Precautionary statements:**

Wear protective gloves/protective clothing/eye protection/face protection.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Do not breathe dust/fume/gas/mist/vapors/spray.  
 Do not eat, drink or smoke when using this product.  
 Use only outdoors or in a well-ventilated area.  
 Wash skin thoroughly after handling.  
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
 Keep container tightly closed.  
 Ground/bond container and receiving equipment.  
 Use explosion-proof electrical/ventilating/light/equipment.  
 If exposed: Call a poison center or doctor/physician.  
 Wash contaminated clothing before reuse.  
 If on skin (or hair): Immediately remove/take off all contaminated clothing. Rinse skin with water/shower.  
 In case of fire: Use agents recommended in section 5 for extinction.  
 If swallowed: Call a poison center or doctor/physician if you feel unwell.  
 Rinse mouth.  
 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.  
 Specific treatment (see supplemental first aid instructions on this label).  
 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.  
 Store in a well ventilated place. Keep container tightly closed.  
 Store in a well ventilated place. Keep cool.  
 Store locked up.  
 Dispose of contents and container as instructed in Section 13.

**Other Non-GHS Classification:** None

**SECTION 3: Composition/information on ingredients**

**Ingredients:**

<b>Ingredients:</b>		
CAS 67-56-1	Methanol	12.5 %
CAS 64-17-5	Ethanol	12.5 %
CAS 67-63-0	Isopropanol	25 %
CAS 77-09-8	Phenolphthalein	0.5 %
CAS 7732-18-5	Water (DI)	50 %
Percentages are by weight		

**SECTION 4: First aid measures**

**Description of first aid measures**

**After inhalation:**

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Take affected persons out into the fresh air. Seek immediate medical advice. Provide oxygen treatment if affected person has difficulty breathing. In case of irregular breathing or respiratory arrest provide artificial respiration.

**After skin contact:**

Immediately remove any clothing soiled by the product. Flush with water for 15 minutes. Seek immediate medical attention or advice.

**After eye contact:**

Protect unharmed eye. Flush with water for 15 minutes. Seek immediate medical attention or advice.

**After swallowing:**

Do not induce vomiting; call for medical help immediately. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. Have exposed individual drink sips of water or milk.

**Most important symptoms and effects, both acute and delayed:**

Headache. Acidosis. Disorientation. Unconsciousness. Coughing. Breathing difficulty. Dizziness. Gastric or intestinal disorders when ingested. Nausea in case of ingestion. Slight irritant effect on skin and mucous membranes. Irritant to eyes. Blindness.

**Indication of any immediate medical attention and special treatment needed:**

Contains methanol. Consult literature for specific antidotes. Medical supervision for at least 48 hours. Monitor circulation, possible shock treatment. If necessary oxygen respiration treatment. Note to physician: Treat symptomatically.

**SECTION 5: Firefighting measures**

**Extinguishing media**

**Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray.

**Unsuitable extinguishing agents:**

None.

**Special hazards arising from the substance or mixture:**

Formation of toxic gases is possible during heating or in case of fire.

**Advice for firefighters:**

**Protective equipment:**

Wear self-contained respiratory protective device. Wear fully protective suit.

**Additional information (precautions):**

Eliminate all ignition sources if safe to do so. Use large quantities of foam as it is partially destroyed by the product.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Avoid contact with skin and eyes, and clothing.

**Environmental precautions:**

Do not allow to enter sewers. Do not allow to enter surface or ground water. Inform respective authorities in case of seepage into water course or sewage system.

**Methods and material for containment and cleaning up:**

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Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders). Send for recovery or disposal in suitable receptacles. Dispose contaminated material as waste according to section 13. Used rags or other cleaning materials should be soaked with water and placed in a sealed container. Clean up spills immediately, observing precautions in Section 8. Always obey local regulations. Wash hands after handling. Avoid contact with skin and eyes.

**Reference to other sections:**

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

Prevent formation of aerosols. Avoid splashes or spray in enclosed areas. Use only in well ventilated areas. Rags, metal wools / cuttings / shavings and waste papers soaked with product must be placed in a sealed metal container rated for flammable waste. Keep ignition sources away - Do not smoke. Flammable gas-air mixtures may form in empty receptacles. Protect against electrostatic charges. Fumes can combine with air to form an explosive mixture.

**Conditions for safe storage, including any incompatibilities:**

Store in a cool location. Provide ventilation for receptacles. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store away from oxidizing agents. Store in cool, dry conditions in well sealed receptacles. Keep container tightly sealed. Store away from combustible materials. Protect from freezing and physical damage.

**SECTION 8: Exposure controls/personal protection**



**Control parameters:**

67-63-0, :Isopropanol, ACGIH TLV: 983mg/m<sup>3</sup>.  
67-63-0, :Isopropanol, OSHA PEL: 980mg/m<sup>3</sup>.  
64-17-5, Ethanol, OSHA PEL: 1900mg/m<sup>3</sup>.  
64-17-5, Ethanol, ACGIH TLV: 1880mg/m<sup>3</sup>.  
67-56-1, Methanol, OSHA PEL: 200ppm.  
67-56-1, Methanol., ACGIH TLV: 200ppm.

**Appropriate engineering controls:**

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated above. All electrical equipment should comply with the National Electric Code. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Take precautionary measures against static discharges. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases/vapors may be released.

**Respiratory protection:**

Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable.

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<b>Protection of skin:</b>	The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
<b>Eye protection:</b>	Safety glasses.
<b>General hygienic measures:</b>	The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	Slight pink liquid	<b>Explosion limit lower: Explosion limit upper:</b>	Product does not present Explosion hazard Not determined
<b>Odor:</b>	Mild alcohol	<b>Vapor pressure at 20°C:</b>	33mmHg @ 20C
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	2.1
<b>pH-value:</b>	Slightly Acidic	<b>Relative density:</b>	Not determined
<b>Melting/Freezing point:</b>	- 88C	<b>Solubilities:</b>	Soluble in water
<b>Boiling point/Boiling range:</b>	Approx 82C	<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>Flash point (closed cup):</b>	Not determined	<b>Auto/Self-ignition temperature:</b>	Product is not self-igniting
<b>Evaporation rate:</b>	2.88	<b>Decomposition temperature:</b>	Not determined
<b>Flammability (solid, gaseous):</b>	Not determined	<b>Viscosity:</b>	a. Kinematic: Not determined b. Dynamic: Not determined
<b>Density at 20°C:</b>	slightly heavier than water		

**SECTION 10: Stability and reactivity**

**Reactivity:**

Not determined.

**Chemical stability:**

No decomposition if used and stored according to specifications.

**Possible hazardous reactions:**

Flammable. Toxic fumes may be released if heated above the decomposition point. Reacts violently with oxidizing agents.

**Conditions to avoid:**

Keep ignition sources away - Do not smoke. Store away from oxidizing agents. Excess heat.

**Incompatible materials:**

Strong acids. Strong bases. Oxidizers, aldehydes, heat, sparks, open flame, metallic oxides.

**Hazardous decomposition products:**

Carbon oxides (CO, CO<sub>2</sub>). Acrid and irritating fumes, including toxic oxides of carbon will heat to combustion.

**SECTION 11: Toxicological information**

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**Phenolphthalein Indicator Solution,**

**Acute Toxicity:**

**ATE:** 50ppm

**Oral:**

: LD50 rat: 5840 mg/kg (Isopropanol).

**Inhalation:**

: LC50 rat 83.2 mg/L (Methanol).

**Chronic Toxicity:**

**Oral:**

: No testing available. .

**Dermal:**

: No testing available .

**Inhalation:**

: No testing available. .

**Skin corrosion/irritation:**

: No testing available .

**Serious eye damage/irritation:**

: No testing available. .

**Respiratory or skin sensitization:**

: Not classified.

**Carcinogenicity:** No additional information.

**Germ cell mutagenicity:** No additional information.

**Reproductive Toxicity:** No additional information.

**STOT-single and repeated exposure:**

: Not classified.

**Additional toxicological information:** No additional information.

**SECTION 12: Ecological information**

**Ecotoxicity:**

: Toxicity to fish , Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 31 mg/l - 96 h.

**Persistence and degradability:**

biodegradable.

**Bioaccumulative potential:**

No further relevant information available.

**Mobility in soil:**

No further relevant information available.

**Other adverse effects:**

No further relevant information available.

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according to 29CFR1910/1200 and GHS Rev. 3

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**Phenolphthalein Indicator Solution,**

**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

Product/containers must not be disposed together with household garbage. Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product. Handle empty containers with care because residual vapors are flammable. Avoid release to the environment. Absorb and containerize for disposal.

**SECTION 14: Transport information**

**US DOT**

**UN Number:**

ADR, ADN, DOT, IMDG, IATA

UN1993

**Limited Quantity Exception:**

9 CFR 173.150 - Exceptions for Class 3  
(flammable and combustible liquids).

**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Flammable Liquids,  
N.O.S., (Methanol, Ethanol, Isopropanol), 3.

**Hazard Class:** 3

**Packing Group:** II.

**Marine Pollutant (if applicable):** No  
additional information.

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Flammable Liquids,  
N.O.S., (Methanol, Ethanol, Isopropanol), 3.

**Hazard Class:** 3

**Packing Group:** II.

**Marine Pollutant (if applicable):** No  
additional information.

**Comments:** None



**SECTION 15: Regulatory information**

**United States (USA)**

**SARA Section 311/312 (Specific toxic chemical listings):**

Acute, Chronic, Fire

**SARA Section 313 (Specific toxic chemical listings):**

67-56-1 Methanol.

**RCRA (hazardous waste code):**

None of the ingredients are listed.

**TSCA (Toxic Substances Control Act):**

All ingredients are listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**

None of the ingredients are listed.

**Proposition 65 (California):**

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**Phenolphthalein Indicator Solution,**

**Chemicals known to cause cancer:**

77-09-8 Phenolphthalein.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

64-17-5 Ethanol.

67-56-1 Methanol.

**Canada**

**Canadian Domestic Substances List (DSL):**

All ingredients are listed.

**SECTION 16: Other information**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations of this material.

**NFPA: 1-2-0**

**HMIS: 1-2-0**

**GHS Full Text Phrases:**

Acute Tox. 4 (Oral) Acute toxicity (oral) Category 4.

H226 Flammable liquid and vapor.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H361 Suspected of damaging fertility or the unborn child.

Carc. 1B Carcinogenicity Category 1B.

Eye Irrit. 2A Serious eye damage/eye irritation Category 2A.

Eye Irrit. 2B Serious eye damage/eye irritation Category 2B.

Flam. Liq. 3 Flammable liquids Category 3.

Muta. 2 Germ cell mutagenicity Category 2.

Repr. 2 Reproductive toxicity Category 2.

Skin Irrit. 2 skin corrosion/irritation Category 2.

STOT SE 3 Specific target organ toxicity (single exposure) Category 3.

**Abbreviations and Acronyms:**

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**Phenolphthalein Indicator Solution,**

IMDG International Maritime Code for Dangerous Goods.  
DNEL Derived No-Effect Level (REACH).  
PNEC Predicted No-Effect Concentration (REACH).  
DOT US Department of Transportation.  
IATA International Air Transportation Association.  
GHS Globally Harmonized System of Classification and Labelling of Chemicals.  
ACGIH American Conference of Governmental Industrial Hygienists.  
CAS Chemical Abstracts Service (division of the American Chemical Society).  
NFPA National Fire Protection Association (USA).  
HMIS Hazardous Materials Identification System (USA).  
WHMIS Workplace Hazardous Materials Information System (Canada).

