

6513

2-517

C 32318

## Material Safety Data Sheet

### Section 1 – Chemical Product and Company Identification

Catalog Numbers: KEMSF9280-D  
Product Identity: Sodium Fluoride Solution

**Chemical Family:** Not Applicable  
**Synonyms:** Sodium Fluoride 0.01M  
**Recommended Use:** Laboratory chemicals

Manufacturer's Name: AquaPhoenix Scientific, Inc., 9 Barnhart Dr., Hanover, PA 17331, (866) 632-1291  
Emergency Contact Number (24hr): Chemtel (800) 255-3924

Issue Date: 06/18/12  
Revision Date:

### Section 2 – Hazard Identification

#### **Emergency Overview**

Mildly toxic. Ingestion of large amounts can lead to fluoride poisoning. If ingested, dilute with milk and get medical attention.

**Appearance:** Clear, colorless liquid                      **Odor:** Odorless  
**Target Organs:** Eyes, skin

#### **Potential Health Effects/ Routes of Exposure:**

**Eyes:** May cause irritation, redness, tearing, pain

**Skin:** May cause irritation and possible burns

**Ingestion:** May cause fluoride poisoning. Early symptoms include nausea, diarrhea, vomiting and weakness.

**Inhalation:** Not likely to be a hazard by inhalation.

**Chronic Effect / Carcinogenicity:** May cause mottling of the teeth and bone damage.

IARC – Sodium Fluoride is unclassified as to carcinogenicity to humans

**Aggravated Medical Conditions** No information available

These chemicals are not considered hazardous by OSHA.

See section 11 for toxicological information. See section 12 for potential environmental effects.

### Section 3 – Composition, Information on Ingredients

Sodium Fluoride, CAS# 7681-49-4, <1% w/v

Water, purified, CAS# 7732-18-5, >99% w/v

### Section 4 – First Aid

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance.

**Skin:** Flush with water for 15 minutes. Get medical assistance if irritation develops.

**Ingestion:** Give with milk, milk of magnesia, or chewable calcium carbonate tablets. Get medical assistance.

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**Notes to Physician** Treat symptomatically.

### Section 5 – Fire Fighting Measures

**Flash Point:** Not Applicable    **Autoignition Temperature** No information available.

**Explosion Limits Upper** No data available                      **Lower** No data available

**Extinguishing Media:** Use any means suitable for extinguishing surrounding fire.

**Unsuitable Extinguishing Media:** No information available  
**Fire & Explosion Hazards:** Not considered to be a fire or explosion hazard.  
**Fire Fighting Instructions / Equipment:** Use normal procedures. Use protective clothing. Use NIOSH-approved breathing equipment.  
**Hazardous Combustion Products:** No information Available  
**Sensitivity to mechanical impact** No information available.  
**Sensitivity to static discharge** No information available.  
**Specific Hazards Arising from the Chemical:** Not available  
**NFPA Rating:** (estimated) Health: 2; Flammable: 0; Reactivity: 0

#### Section 6 – Accidental Release Measures

**Personal Precautions** Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.  
**Environmental Precautions** No information available  
**Methods for Containment and Clean Up** Wear gloves to protect from absorption. Cover with soda ash-slaked lime mixture. Scoop into container of water and neutralize with hydrochloric acid. Release the resulting mixture to drain with large amounts of water. Always obey local regulations.

#### Section 7 – Handling and Storage

**Handling:** Wash hands after handling. Avoid contact with skin and eyes.  
**Storage:** Protect from freezing and physical damage.

#### Section 8 – Exposure Controls, Personal Protection

Sodium Fluoride, CAS# 7681-49-4, ACGIH TLV: 2.5mg/m<sup>3</sup>, OSHA PEL: 2.5mg/m<sup>3</sup>  
Water, purified, CAS# 7732-18-5, ACGIH TLV: NA, OSHA PEL: NA  
**Engineering Measures/ General Hygiene:** Normal ventilation is adequate. Ensure eyewash and safety showers are available.  
**Personal Protection Equipment:** **Skin Protection:** Chemical resistant gloves.  
**Eye/Face Protection:** Safety Glasses or goggles. **Respiratory Protection:** Normal ventilation is adequate

#### Section 9 – Physical and Chemical Properties

<b>Appearance/Physical State:</b> Clear, colorless liquid	
<b>Odor:</b> Odorless	<b>% Volatility:</b> No Information Available
<b>Boiling Point:</b> No information available	<b>Specific Gravity:</b> Not available
<b>Melting Point:</b> No Information available	<b>Vapor Pressure:</b> No information available
<b>Vapor Density:</b> No information available	<b>Flash Point:</b> Not Applicable
<b>Evaporation Rate:</b> No information available	<b>Coefficient of water/oil distribution:</b> Not Available
<b>pH:</b> No information available	<b>Odor Threshold:</b> Not Available
<b>Flammability:</b> No Information Available	<b>Decomposition Temperature:</b> No information available
<b>Solubility:</b> Infinite available	<b>Partition Coefficient n-octanol/water:</b> No data
<b>Relative Density:</b> No Information Available	<b>Molecular Weight:</b> No information available

#### Section 10 – Stability and Reactivity

**Chemical Stability:** Stable under normal conditions of use and storage.  
**Incompatible Materials:** Reacts with acids to form Hydrogen Fluoride  
**Conditions to Avoid:** No information available  
**Hazardous Decomposition Products:** Burning may produce fumes of hydrogen fluoride  
**Hazardous Polymerization:** Does not occur  
**Hazardous Reactions:** No information available

#### Section 11 – Toxicological Information

**Routes of Exposure/Symptoms/Corrosiveness** – See Section 2  
LD50 orl-rat: 52mg/kg (Sodium Fluoride)      LC50 inhalation-rat: NA

**Irritation:** No Information Available  
**Toxicologically Synergistic:** No Information Available

**Chronic Exposure**

**Carcinogenicity** No information available  
**Sensitization** No information available.  
**Mutagenic Effects** No information available  
**Reproductive Effects** Cited for Potassium Fluoride  
**Developmental Effects (Immediate/Delayed)** No information available.  
**Teratogenicity** No information available.  
**Other Adverse Effects** No information available.  
**Endocrine Disruptor Information** No information available

**Section 12 – Ecological Information**

**Ecotoxicity:** No information available  
**Persistence and Degradability:** No Information Available      **Mobility:** No Information Available  
**Bioaccumulation/ Accumulation:** This material may bioaccumulate to some extent

**Section 13 – Disposal Considerations**

**Waste Disposal/Waste Disposal of Packaging:** Dilute with water and flush to sewer if local regulations allow. All chemical waster generators must determine whether a discarded chemical is classified as hazardous waste. Comply with all local, state, and federal regulations.

**Section 14 – Transport Information**

**DOT – UN3415, Sodium Fluoride Solution, 6.1, III**

**Section 15 – Regulatory Information (not meant to be all inclusive)**

**OSHA Status:** These chemicals are considered hazardous by OSHA.  
**Canada DSL** These chemicals are listed on Canada's DSL list.  
**TSCA:** Not applicable  
**SARA Title III Section 313:** Not Applicable  
**RCRA Status:** Not Applicable  
**CERCLA Reportable Quantity:** Sodium Fluoride – 1000lbs  
**WHMIS:** D-1B: Poisonous and Infectious material. Material causing immediate and serious toxic effects-Toxic Material.  
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

**Section 16 – Additional Information**

**Disclaimer:** The information on this MSDS applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to determine the suitability and completeness of this information for his own particular use. No warranty is implied regarding the accuracy of the data or the results to be obtained from the products use.

# Material Safety Data Sheet

## Section 1 – Chemical Product and Company Identification

Catalog Numbers: KEMPH3220-B  
Product Identity: Potassium Phosphate Solution

**Chemical Family:** Not Applicable  
**Synonyms:** Potassium Phosphate 0.2M  
**Recommended Use:** Laboratory chemicals

Manufacturer's Name: AquaPhoenix Scientific, Inc., 9 Barnhart Dr., Hanover, PA 17331, (866) 632-1291  
Emergency Contact Number (24hr): Chemtel (800) 255-3924

Issue Date: 06/18/12  
Revision Date:

## Section 2 – Hazard Identification

### **Emergency Overview**

May cause irritation. Wash all areas of contact with water.

**Appearance:** Clear colorless liquid      **Odor:** Odorless

**Target Organs:** Eyes, skin.

### **Potential Health Effects/ Routes of Exposure:**

**Eyes:** May cause slight irritation.

**Skin:** May cause slight irritation to those allergic to phosphates

**Ingestion:** Large doses may cause upset stomach.

**Inhalation:** May cause allergic respiratory reaction to those allergic to phosphates

**Chronic Effect / Carcinogenicity:** No information found (IARC, NTP, OSHA)

**Aggravated Medical Conditions:** No information available

These chemicals are not considered hazardous by OSHA.

See section 11 for toxicological information. See section 12 for potential environmental effects.

## Section 3 – Composition, Information on Ingredients

Potassium Phosphate, Monobasic, CAS# 7778-77-0, <1% w/v  
Water, purified, CAS# 7732-18-5, >99% w/v

## Section 4 – First Aid

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance.

**Skin:** Flush with water for 15 minutes. Get medical assistance if irritation develops.

**Ingestion:** DO NOT induce vomiting. Dilute with water or milk. Get medical assistance.

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**Notes to Physician:** Treat symptomatically

## Section 5 – Fire Fighting Measures

**Flash Point:** Not Applicable      **Autoignition Temperature:** No information available.

**Explosion Limits Upper:** No data available      **Lower:** No data available

**Extinguishing Media:** Use means suitable to extinguishing surrounding fire.

**Unsuitable Extinguishing Media:** No information available.

**Fire & Explosion Hazards:** Not considered to be a fire or explosion hazard.

**Fire Fighting Instructions / Equipment:** Use normal procedures. Use protective clothing. Use NIOSH-approved breathing equipment.

**Hazardous Combustion Products:** No information Available  
**Sensitivity to mechanical impact** No information available.  
**Sensitivity to static discharge** No information available.  
**Specific Hazards Arising from the Chemical:** Thermal decomposition can lead to release of irritating gases and vapors.  
**NFPA Rating:** (estimated) Health: 1; Flammable: 0; Reactivity: 0

#### Section 6 – Accidental Release Measures

**Personal Precautions** Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.  
**Environmental Precautions** No information available  
**Methods for Containment and Clean Up** Absorb with suitable material. Always obey local regulations.

#### Section 7 – Handling and Storage

**Handling:** Wash hands after handling. Avoid contact with skin and eyes.  
**Storage:** Protect from freezing and physical damage.

#### Section 8 – Exposure Controls, Personal Protection

Potassium Phosphate, Monobasic, CAS# 7778-77-0, ACGIH TLV: NA, OSHA PEL: NA  
Water, purified, CAS# 7732-18-5, ACGIH TLV: NA, OSHA PEL: NA  
**Engineering Measures/ General Hygiene:** Normal ventilation is adequate. Ensure eyewash and safety showers are available.  
**Personal Protection Equipment: Skin Protection:** Chemical resistant gloves.  
**Eye/Face Protection:** Safety Glasses or goggles. **Respiratory Protection:** Normal ventilation is adequate.

#### Section 9 – Physical and Chemical Properties

<b>Appearance/Physical State:</b> Clear, colorless liquid	
<b>Odor:</b> Odorless	<b>% Volatility:</b> No Information Available
<b>Boiling Point:</b> No information available	<b>Specific Gravity:</b> Approx 1
<b>Melting Point:</b> No information available	<b>Vapor Pressure:</b> No information available
<b>Vapor Density:</b> No information available	<b>Flash Point:</b> Not Applicable
<b>Evaporation Rate:</b> No information available	<b>Coefficient of water/oil distribution:</b> Not Available
<b>pH:</b> No information available	<b>Odor Threshold:</b> Not Available
<b>Flammability:</b> No Information Available	<b>Decomposition Temperature:</b> No information available
<b>Solubility:</b> Infinite	<b>Partition Coefficient n-octanol/water:</b> No data
available	
<b>Relative Density:</b> No Information Available	<b>Molecular Weight:</b> No information available

#### Section 10 – Stability and Reactivity

**Chemical Stability:** Stable under normal conditions of use and storage  
**Incompatible Materials:** None identified  
**Conditions to Avoid:** No information available  
**Hazardous Decomposition Products:** oxides of phosphorus  
**Hazardous Polymerization:** Does not occur  
**Hazardous Reactions:** No information available

#### Section 11 – Toxicological Information

**Routes of Exposure/Symptoms/Corrosiveness –** See Section 2  
LD50 orl-rat: NA LC50 inhalation-rat: NA  
**Irritation:** No Information Available  
**Toxicologically Synergistic:** No Information Available  
**Chronic Exposure**  
**Carcinogenicity** There are no known carcinogenic chemicals in this product  
**Sensitization** No information available.  
**Mutagenic Effects** No information available

**Reproductive Effects** No information available.  
**Developmental Effects (Immediate/Delayed)** No information available.  
**Teratogenicity** No information available.  
**Other Adverse Effects** No information available.  
**Endocrine Disruptor Information** No information available

#### **Section 12 – Ecological Information**

**Ecotoxicity:** No information available  
**Persistence and Degradability:** No Information Available      **Mobility:** No Information Available  
**Bioaccumulation/ Accumulation:** No Information Available

#### **Section 13 – Disposal Considerations**

**Waste Disposal/Waste Disposal of Packaging:** Dilute with water and flush to sewer. All chemical waster generators must determine whether a discarded chemical is classified as hazardous waste. Comply with all local, state, and federal regulations.

#### **Section 14 – Transport Information**

**DOT - Not Regulated**

#### **Section 15 – Regulatory Information (not meant to be all inclusive)**

**OSHA Status:** These chemicals are not considered hazardous by OSHA.  
**Canada DSL:** These chemicals are listed on Canada's DSL list  
**TSCA:** Not applicable  
**SARA Title III Section 313:** Not Applicable  
**RCRA Status:** Not Applicable  
**CERCLA Reportable Quantity:** No information available  
**WHMIS:** Not-controlled  
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

#### **Section 16 – Additional Information**

**Disclaimer:** The information on this MSDS applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to determine the suitability and completeness of this information for his own particular use. No warranty is implied regarding the accuracy of the data or the results to be obtained from the products use.

Kemtec  
9 Barnhart Drive, Hanover, PA 17331 (877) 401-1782  
Emergency Telephone No.: (800) 255-3924

# Material Safety Data Sheet

## Section 1 – Chemical Product and Company Identification

Catalog Numbers: KEMIO2950-B  
Product Identity: Iodine Solution

**Chemical Family:** No Information Available  
**Synonyms:** Iodine, Dilute  
**Recommended Use:** Laboratory chemicals

Manufacturer's Name: AquaPhoenix Scientific, Inc., 9 Barnhart Dr., Hanover, PA 17331, (866) 632-1291  
Emergency Contact Number (24hr): Chemtel (800) 255-3924

**Issue Date:** 06/18/12  
**Revision Date:**

## Section 2 – Hazard Identification

### **Emergency Overview**

May irritate skin, eyes, and gastrointestinal tract. Wash areas of contact with water. Get medical attention.

**Appearance:** Dark brown liquid      **Odor:** Weak iodine odor

**Target Organs:** Eyes, skin, central nervous system, cardiovascular system, respiratory system.

### **Potential Health Effects/ Routes of Exposure:**

**Eyes:** May cause irritation.

**Skin:** May cause slight irritation and stain the skin.

**Ingestion:** May cause nausea, diarrhea, vomiting, cramps.

**Inhalation:** May cause irritation.

**Chronic Effect / Carcinogenicity** None (IARC, NTP, OSHA)

**Aggravated Medical Conditions** No information available

These chemicals are not considered hazardous by OSHA.

See section 11 for toxicological information. See section 12 for potential environmental effects.

## Section 3 – Composition, Information on Ingredients

Potassium Iodide, CAS# 7681-11-0, <1% w/v  
Iodine, CAS# 7553-56-2, <1% w/v  
Water, purified, CAS# 7732-18-5, >98% w/v

## Section 4 – First Aid

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance.

**Skin:** Flush with water for 15 minutes. Get medical assistance if irritation develops.

**Ingestion:** Induce vomiting. Dilute with water or milk. Get medical assistance.

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**Notes to Physician** Treat symptomatically.

## Section 5 – Fire Fighting Measures

**Flash Point:** No Information Available

**Autoignition Temperature** No Information Available

**Explosion Limits Upper** No Information Available

**Lower** No Information Available

**Extinguishing Media:** Use any means suitable to extinguishing surrounding fire.

**Unsuitable Extinguishing Media:** No information available

**Fire & Explosion Hazards** Not considered to be a fire or explosion hazard.

**Fire Fighting Instructions / Equipment:** Use normal procedures. Use protective clothing. Use NIOSH-approved breathing equipment.

**Hazardous Combustion Products:** No information Available

**Sensitivity to mechanical impact** No information available.

**Sensitivity to static discharge** No information available.

**Specific Hazards Arising from the Chemical:** No Information Available

**NFPA Rating:** (estimated) Health: 2; Flammable: 0; Reactivity: 0

### Section 6 – Accidental Release Measures

**Personal Precautions** Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

**Environmental Precautions** Should not be released into the environment.

**Methods for Containment and Clean Up** Absorb with suitable material and treat as normal refuse.

Liquid may be flushed to sewer. Solution may be neutralized with sodium thiosulfate until colorless, and then flushed to sewer. Always obey local regulations.

### Section 7 – Handling and Storage

**Handling:** Wash hands after handling. Avoid contact with skin and eyes.

**Storage:** Protect from freezing and physical damage.

### Section 8 – Exposure Controls, Personal Protection

Potassium Iodide, CAS# 7681-11-0, ACGIH TLV: NA, OSHA PEL: NA

Iodine, CAS# 7553-56-2, ACGIH TLV: 1mg/m<sup>3</sup>, OSHA PEL: 1mg/m<sup>3</sup>

Water, purified, CAS# 7732-18-5, ACGIH TLV: NA, OSHA PEL: NA

**Engineering Measures/ General Hygiene:** Local/general exhaust is recommended. Ensure eyewash and safety showers are available.

**Personal Protection Equipment: Skin Protection:** Chemical resistant gloves.

**Eye/Face Protection:** Safety Glasses or goggles. **Respiratory Protection:** Normal ventilation is adequate.

### Section 9 – Physical and Chemical Properties

**Appearance/Physical State:** Dark brown liquid

**Odor:** Weak iodine odor

**Boiling Point:** Approx 100 C

**Melting Point:** Below 0 C

**Vapor Density:** No Information Available

**Evaporation Rate:** No Information Available

**pH:** No Information Available

**Flammability:** No Information Available

**Solubility:** Infinite

available

**Relative Density:** No Information Available

**% Volatility:** No Information Available

**Specific Gravity:** Approx 1-1.05

**Vapor Pressure:** No Information Available

**Flash Point:** No Information Available

**Coefficient of water/oil distribution:** Not Available

**Odor Threshold:** Not Available

**Decomposition Temperature:** No Information Available

**Partition Coefficient n-octanol/water:** No data

**Molecular Weight:** No Information Available

### Section 10 – Stability and Reactivity

**Chemical Stability:** Stable under normal conditions of use and storage.

**Incompatible Materials:** Active metals, powdered aluminum, acetylene, acetaldehyde, ammonia, strong oxidizing agents.

**Conditions to Avoid:** No Information Available

**Hazardous Decomposition Products:** Emits irritating fumes and smoke, iodine vapors, and iodide.

**Hazardous Polymerization:** Does not occur

**Hazardous Reactions:** None under normal processing.

### Section 11 – Toxicological Information

**Routes of Exposure/Symptoms/Corrosiveness** – See Section 2

LD50 orl-rat: 14g/kg (Iodine) LC50 inhalation-rat: NA  
Irritation: No Information Available  
Toxicologically Synergistic: No Information Available  
**Chronic Exposure**  
Carcinogenicity No information available  
Sensitization No information available.  
Mutagenic Effects No information available.  
Reproductive Effects No information available.  
Developmental Effects (Immediate/Delayed) No information available.  
Teratogenicity No information available.  
Other Adverse Effects No information available.  
Endocrine Disruptor Information No information available

#### **Section 12 – Ecological Information**

Ecotoxicity: No Information Available.  
Persistence and Degradability: No Information Available      Mobility: No Information Available  
Bioaccumulation/ Accumulation: No Information Available

#### **Section 13 – Disposal Considerations**

**Waste Disposal/Waste Disposal of Packaging:** Dilute with water and neutralize with sodium thiosulfate until colorless. Then dilute the resulting solution with dilute hydrochloric acid or sodium carbonate solution, and decant to drain with large quantities of water. All chemical waster generators must determine whether a discarded chemical is classified as hazardous waste. Comply with all local, state, and federal regulations.

#### **Section 14 – Transport Information**

DOT – Not Regulated

#### **Section 15 – Regulatory Information (not meant to be all inclusive)**

**OSHA Status:** These chemicals are not considered hazardous by OSHA.  
**Canada DSL:** These chemicals are listed on Canada's DSL list.  
**TSCA:** The components of this solution are listed on the TSCA Inventory  
**SARA Title III Section 313:** Not Applicable  
**RCRA Status:** Not Applicable  
**CERCLA Reportable Quantity:** No Information Available  
**WHMIS:** No Information Available  
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

#### **Section 16 – Additional Information**

**Disclaimer:** The information on this MSDS applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to determine the suitability and completeness of this information for his/her own particular use. No warranty is implied regarding the accuracy of the data or the results to be obtained from the products use.

# Material Safety Data Sheet

## Section 1 – Chemical Product and Company Identification

Catalog Numbers: KEMGL1010-SM, KEMGL1010-10G, KEMGL1010-H  
Product Identity: Glucose

**Chemical Family:** Not Applicable  
**Synonyms:** Not Available  
**Recommended Use:** Laboratory chemicals

Manufacturer's Name: AquaPhoenix Scientific, Inc., 9 Barnhart Dr., Hanover, PA 17331  
Emergency Contact Number (24hr): Chemtel (800) 255-3924

Issue Date: 06/18/12  
Revision Date:

## Section 2 – Hazard Identification

Emergency Overview

May cause eye, skin, digestive tract and respiratory system irritation. Wash areas of contact with water.

**Appearance:** White solid                      **Odor:** Odorless

**Target Organs:** eyes, skin

**Potential Health Effects/ Routes of Exposure:**

**Eyes:** May cause irritation.

**Skin:** May cause irritation.

**Ingestion:** May cause irritation

**Inhalation:** May cause irritation to the respiratory tract

**Chronic Effect / Carcinogenicity:** None (IARC, NTP, OSHA)

**Aggravated Medical Conditions** No information available

These chemicals are not considered hazardous by OSHA.

See section 11 for toxicological information. See section 12 for potential environmental effects.

## Section 3 –Composition, Information on Ingredients

Glucose, CAS# 50-99-7

## Section 4 – First Aid

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance.

**Skin:** Flush with water for 15 minutes. Get medical assistance if irritation develops.

**Ingestion:** Do NOT induce vomiting. Get medical assistance.

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**Notes to Physician** Treat symptomatically.

## Section 5 – Fire Fighting Measures

**Flash Point:** Not Applicable    **Autoignition Temperature** No information available

**Explosion Limits Upper** No data available                      **Lower** No data available

**Extinguishing Media:** Use means suitable to extinguishing surrounding fire (water spray, carbon dioxide, dry chemical, foam).

**Unsuitable Extinguishing Media:** No information available

**Fire & Explosion Hazards:** Not considered to be a fire or explosion hazard. During a fire irritating/toxic gases may be produced

**Fire Fighting Instructions / Equipment:** Use normal procedures. Use protective clothing. Use NIOSH-approved breathing equipment.

**Hazardous Combustion Products:** No information Available

**Sensitivity to mechanical impact** No information available.

**Sensitivity to static discharge** No information available.

**Specific Hazards Arising from the Chemical:** Dust can form an explosive mixture in air.

**NFPA Rating:** (estimated) Health: 0; Flammable: 1; Reactivity: 0

### Section 6 – Accidental Release Measures

**Personal Precautions** Use proper personal protective equipment. Avoid contact with skin, eyes and clothing.

**Environmental Precautions** No information available

**Methods for Containment and Clean Up** Absorb and containerize for disposal. Avoid generating dust. Always obey local regulations.

### Section 7 – Handling and Storage

**Handling:** Wash hands after handling. Avoid contact with skin and eyes.

**Storage:** Protect from freezing and physical damage.

### Section 8 – Exposure Controls, Personal Protection

Glucose, CAS# 50-99-7, ACGIH TLV: NA, OSHA PEL: NA

**Engineering Measures/ General Hygiene:** Normal ventilation is adequate. Ensure eyewash and safety showers are available.

**Personal Protection Equipment: Skin Protection:** Chemical resistant gloves.

**Eye/Face Protection:** Safety Glasses or goggles. **Respiratory Protection:** Normal ventilation is adequate.

### Section 9 – Physical and Chemical Properties

**Appearance/Physical State:** White solid

**Odor:** Odorless

**Boiling Point:** Not available

**Melting Point:** Not available

**Vapor Density:** Not available

**Evaporation Rate:** Not available

**pH:** Not available

**Flammability:** No Information Available

**Solubility:** soluble  
available

**Relative Density:** No Information Available

**% Volatility:** No Information Available

**Specific Gravity:** Not available

**Vapor Pressure:** Not available

**Flash Point:** Not Applicable

**Coefficient of water/oil distribution:** Not Available

**Odor Threshold:** Not Available

**Decomposition Temperature:** Not available

**Partition Coefficient n-octanol/water:** No data

**Molecular Weight:** Not available

### Section 10 – Stability and Reactivity

**Chemical Stability:** Stable under normal conditions.

**Conditions to Avoid:** No information available

**Incompatible Materials:** Strong oxidizers

**Hazardous Decomposition Products:** Oxides of carbon and irritating and toxic gases/fumes

**Hazardous Polymerization:** Does not occur

**Hazardous Reactions:** None under normal processing.

### Section 11 – Toxicological Information

**Routes of Exposure/Symptoms/Corrosiveness** – See Section 2

LD50 orl-rat: 25800mg/kg

LC50 inhalation-rat: NA

**Irritation:** No Information Available

**Toxicologically Synergistic:** No Information Available

#### Chronic Exposure

**Carcinogenicity** There are no known carcinogenic chemicals in this product

**Sensitization** No information available.  
**Mutagenic Effects** No information available.  
**Reproductive Effects** No information available.  
**Developmental Effects (Immediate/Delayed)** No information available.  
**Teratogenicity** No information available.  
**Other Adverse Effects** No information available.  
**Endocrine Disruptor Information** No information available

#### **Section 12 – Ecological Information**

**Ecotoxicity:** No information available  
**Persistence and Degradability:** No Information Available      **Mobility:** No information available  
**Bioaccumulation/ Accumulation:** No Information Available

#### **Section 13 – Disposal Considerations**

**Waste Disposal/Waste Disposal of Packaging:** 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 to ensure complete and accurate classification.

#### **Section 14 – Transport Information**

DOT – Not Regulated

#### **Section 15 – Regulatory Information (not meant to be all inclusive)**

**OSHA Status:** These chemicals are not considered hazardous by OSHA.  
**Canada DSL:** These chemicals are on Canada's DSL list.  
**TSCA:** The components of this solution are listed on the TSCA Inventory  
**SARA Title III Section 313:** Not Applicable  
**RCRA Status:** Not Applicable  
**CERCLA Reportable Quantity:** Not Applicable  
**WHMIS:** Not controlled

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

#### **Section 16 – Additional Information**

**Disclaimer:** The information on this MSDS applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to determine the suitability and completeness of this information for his own particular use. No warranty is implied regarding the accuracy of the data or the results to be obtained from the products use.

# Material Safety Data Sheet

## Section 1 – Chemical Product and Company Identification

Catalog Numbers: KEMST5100-SM, KEMST5100-H  
Product Identity: Starch, Soluble

**Chemical Family:** Not Applicable  
**Synonyms:** No information available  
**Recommended Use:** Laboratory chemicals

Manufacturer's Name: AquaPhoenix Scientific, Inc., 9 Barnhart Dr., Hanover, PA 17331  
Emergency Contact Number (24hr): Chemtel (800) 255-3924

Issue Date: 06/18/12  
Revision Date:

## Section 2 – Hazard Identification

Emergency Overview

May cause eye, skin, respiratory system irritation.

**Appearance:** White solid                      **Odor:** Odorless

**Target Organs:** None known

**Potential Health Effects/ Routes of Exposure:**

**Eyes:** May cause irritation.

**Skin:** May cause irritation.

**Ingestion:** May cause irritation

**Inhalation:** May cause irritation to the respiratory tract

**Chronic Effect / Carcinogenicity:** None (IARC, NTP, OSHA)

**Aggravated Medical Conditions** No information available

These chemicals are not considered hazardous by OSHA.

See section 11 for toxicological information. See section 12 for potential environmental effects.

## Section 3 – Composition, Information on Ingredients

Soluble Starch, CAS# 9005-84-9

## Section 4 – First Aid

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance.

**Skin:** Flush with water for 15 minutes. Get medical assistance if irritation develops.

**Ingestion:** Do NOT induce vomiting. Dilute with water or milk. Get medical assistance.

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**Notes to Physician** Treat symptomatically.

## Section 5 – Fire Fighting Measures

**Flash Point:** Not Applicable    **Autoignition Temperature** 400C.

**Explosion Limits Upper** No data available                      **Lower** No data available

**Extinguishing Media:** Use water spray, dry chemical, alcohol-resistant foam, or carbon dioxide

**Unsuitable Extinguishing Media:** No information available

**Fire & Explosion Hazards:** Not considered to be a fire or explosion hazard.

**Fire Fighting Instructions / Equipment:** Use normal procedures. Use protective clothing. Use NIOSH-approved breathing equipment.

**Hazardous Combustion Products:** No information Available

**Sensitivity to mechanical impact** No information available.

**Sensitivity to static discharge** No information available.

**Specific Hazards Arising from the Chemical:** Keep product and empty container away from heat and sources of ignition.

**NFPA Rating:** (estimated) Health: 1; Flammable: 0; Reactivity: 0

### Section 6 – Accidental Release Measures

**Personal Precautions** Use proper personal protective equipment. Avoid contact with skin, eyes and clothing.

**Environmental Precautions** Should not be released into environment

**Methods for Containment and Clean Up** Absorb and containerize for disposal. Avoid generating dust. Always obey local regulations.

### Section 7 – Handling and Storage

**Handling:** Wash hands after handling. Avoid contact with skin and eyes.

**Storage:** Protect from freezing and physical damage.

### Section 8 – Exposure Controls, Personal Protection

Soluble Starch, CAS# 9005-84-9, ACGIH TLV: NA, OSHA PEL: NA

**Engineering Measures/ General Hygiene:** Normal ventilation is adequate. Ensure eyewash and safety showers are available.

**Personal Protection Equipment: Skin Protection:** Chemical resistant gloves.

**Eye/Face Protection:** Safety Glasses or goggles. **Respiratory Protection:** Normal ventilation is adequate.

### Section 9 – Physical and Chemical Properties

**Appearance/Physical State:** White solid

**Odor:** Odorless

**Boiling Point:** No Information Available

**Melting Point:** No Information Available

**Vapor Density:** No Information Available

**Evaporation Rate:** Not available

**pH:** Not available

**Flammability:** No Information Available

**Solubility:** soluble  
available

**Relative Density:** No Information Available

**% Volatility:** No Information Available

**Specific Gravity:** 1.5

**Vapor Pressure:** No Information Available

**Flash Point:** Not Applicable

**Coefficient of water/oil distribution:** Not Available

**Odor Threshold:** Not Available

**Decomposition Temperature:** 200C

**Partition Coefficient n-octanol/water:** No data

**Molecular Weight:** No Information Available

### Section 10 – Stability and Reactivity

**Chemical Stability:** Stable under normal conditions.

**Conditions to Avoid:** Incompatible materials, excess heat, dust formation

**Incompatible Materials:** Strong oxidizing agents

**Hazardous Decomposition Products:** Oxides of carbon

**Hazardous Polymerization:** Does not occur

**Hazardous Reactions:** None under normal processing.

### Section 11 – Toxicological Information

**Routes of Exposure/Symptoms/Corrosiveness** – See Section 2

**LD50 orl-rat:** No information available

**LC50 inhalation-rat:** No information available

**Irritation:** No Information Available

**Toxicologically Synergistic:** No Information Available

#### Chronic Exposure

**Carcinogenicity** There are no known carcinogenic chemicals in this product

**Sensitization** No information available.

**Mutagenic Effects** No information available.

**Reproductive Effects** No Information available.  
**Developmental Effects (Immediate/Delayed)** No information available.  
**Teratogenicity** No information available.  
**Other Adverse Effects** No information available.  
**Endocrine Disruptor Information** No information available

#### **Section 12 – Ecological Information**

**Ecotoxicity:** Should not be released into environment  
**Persistence and Degradability:** No Information Available      **Mobility:** No information available  
**Bioaccumulation/ Accumulation:** No Information Available

#### **Section 13 – Disposal Considerations**

**Waste Disposal/Waste Disposal of Packaging:** 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 to ensure complete and accurate classification.

#### **Section 14 – Transport Information**

DOT – Not Regulated

#### **Section 15 – Regulatory Information (not meant to be all inclusive)**

**OSHA Status:** These chemicals are not considered hazardous by OSHA.  
**Canada DSL:** These chemicals are on Canada's DSL list.  
**TSCA:** The components of this solution are listed on the TSCA Inventory  
**SARA Title III Section 313:** Not Applicable  
**RCRA Status:** Not Applicable  
**CERCLA Reportable Quantity:** Not Applicable  
**WHMIS:** Not controlled

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

#### **Section 16 – Additional Information**

**Disclaimer:** The information on this MSDS applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to determine the suitability and completeness of this information for his own particular use. No warranty is implied regarding the accuracy of the data or the results to be obtained from the products use.

# Material Safety Data Sheet

## Section 1 – Chemical Product and Company Identification

Catalog Numbers: KEMGL1078-1G  
Product Identity: Glucose-1-phosphate

**Chemical Family:** Not Applicable  
**Synonyms:** Not available  
**Recommended Use:** Laboratory chemicals

Manufacturer's Name: AquaPhoenix Scientific, Inc., 9 Barnhart Dr., Hanover, PA 17331  
Emergency Contact Number (24hr): Chemtel (800) 255-3924

Issue Date: 06/18/12  
Revision Date:

## Section 2 – Hazard Identification

Emergency Overview  
May cause eye and skin irritation. Wash areas of contact with water.  
**Appearance:** solid                      **Odor:** none reported  
**Target Organs:** None  
**Potential Health Effects/ Routes of Exposure:**  
**Eyes:** May cause irritation.  
**Skin:** May cause irritation.  
**Ingestion:** No information found  
**Inhalation:** No information found  
**Chronic Effect / Carcinogenicity:** None (IARC, NTP, OSHA)  
**Aggravated Medical Conditions:** No information available  
These chemicals are not considered hazardous by OSHA.  
See section 11 for toxicological information. See section 12 for potential environmental effects.

## Section 3 – Composition, Information on Ingredients

D-Glucose-1-phosphate Disodium salt tetrahydrate, CAS# 56401-20-8

## Section 4 – First Aid

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance.  
**Skin:** Flush with water for 15 minutes. Get medical assistance if irritation develops.  
**Ingestion:** Dilute with milk or water. Get medical assistance.  
**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.  
**Notes to Physician:** Treat symptomatically.

## Section 5 – Fire Fighting Measures

**Flash Point:** Not Applicable    **Autoignition Temperature:** No information available  
**Explosion Limits Upper:** No data available                      **Lower:** No data available  
**Extinguishing Media:** Use means suitable to extinguishing surrounding fire  
**Unsuitable Extinguishing Media:** No information available  
**Fire & Explosion Hazards:** Not considered to be a fire or explosion hazard. During a fire irritating/toxic gases may be produced

**Fire Fighting Instructions / Equipment:** Use normal procedures. Use protective clothing. Use NIOSH-approved breathing equipment.

**Hazardous Combustion Products:** No information Available

**Sensitivity to mechanical impact** No information available.

**Sensitivity to static discharge** No information available.

**Specific Hazards Arising from the Chemical:** Dust can form an explosive mixture in air.

**NFPA Rating:** (estimated) Health: 0; Flammable: 1; Reactivity: 0

### Section 6 – Accidental Release Measures

**Personal Precautions** Use proper personal protective equipment. Avoid contact with skin, eyes and clothing.

**Environmental Precautions** No information available

**Methods for Containment and Clean Up** Absorb and containerize for disposal. Avoid generating dust. Always obey local regulations.

### Section 7 – Handling and Storage

**Handling:** Wash hands after handling. Avoid contact with skin and eyes. Use with adequate ventilation.

**Storage:** Protect from freezing and physical damage.

### Section 8 – Exposure Controls, Personal Protection

D-Glucose-1-phosphate Disodium salt tetrahydrate, CAS# 56401-20-8, ACGIH TLV: NA, OSHA PEL: NA  
**Engineering Measures/ General Hygiene:** Normal ventilation is adequate. Ensure eyewash and safety showers are available.

**Personal Protection Equipment: Skin Protection:** Chemical resistant gloves.

**Eye/Face Protection:** Safety Glasses or goggles. **Respiratory Protection:** Normal ventilation is adequate.

### Section 9 – Physical and Chemical Properties

**Appearance/Physical State:** Solid

**Odor:** Odorless

**Boiling Point:** Not available

**Melting Point:** Not available

**Vapor Density:** Not available

**Evaporation Rate:** Not available

**pH:** Not available

**Flammability:** No Information Available

**Solubility:** Soluble  
available

**Relative Density:** No Information Available

**% Volatility:** No Information Available

**Specific Gravity:** Not available

**Vapor Pressure:** Not available

**Flash Point:** Not Applicable

**Coefficient of water/oil distribution:** Not Available

**Odor Threshold:** Not Available

**Decomposition Temperature:** 103-105 C

**Partition Coefficient n-octanol/water:** No data

**Molecular Weight:** 304.12

### Section 10 – Stability and Reactivity

**Chemical Stability:** Stable under normal conditions.

**Conditions to Avoid:** High temperatures, dust generation

**Incompatible Materials:** Strong oxidizers

**Hazardous Decomposition Products:** No information available

**Hazardous Polymerization:** Does not occur

**Hazardous Reactions:** None under normal processing.

### Section 11 – Toxicological Information

**Routes of Exposure/Symptoms/Corrosiveness** – See Section 2

LD50 orl-rat: NA

LC50 inhalation-rat: NA

**Irritation:** No Information Available

**Toxicologically Synergistic:** No Information Available

#### Chronic Exposure

**Carcinogenicity** There are no known carcinogenic chemicals in this product

**Sensitization** No information available.  
**Mutagenic Effects** No information available.  
**Reproductive Effects** No Information available.  
**Developmental Effects (Immediate/Delayed)** No information available.  
**Teratogenicity** No information available.  
**Other Adverse Effects** No information available.  
**Endocrine Disruptor Information** No information available

#### **Section 12 – Ecological Information**

**Ecotoxicity:** No information available  
**Persistence and Degradability:** No Information Available      **Mobility:** No information available  
**Bioaccumulation/ Accumulation:** No Information Available

#### **Section 13 – Disposal Considerations**

**Waste Disposal/Waste Disposal of Packaging:** 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 to ensure complete and accurate classification.

#### **Section 14 – Transport Information**

DOT – Not Regulated

#### **Section 15 – Regulatory Information (not meant to be all inclusive)**

**OSHA Status:** These chemicals are not considered hazardous by OSHA.  
**Canada DSL:** These chemicals are on Canada's DSL list.  
**TSCA:** The components of this solution are not listed on the TSCA Inventory  
**SARA Title III Section 313:** Not Applicable  
**RCRA Status:** Not Applicable  
**CERCLA Reportable Quantity:** None of these chemicals are listed  
**WHMIS:** Not controlled  
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

#### **Section 16 – Additional Information**

**Disclaimer:** The information on this MSDS applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to determine the suitability and completeness of this information for his own particular use. No warranty is implied regarding the accuracy of the data or the results to be obtained from the products use.