

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

**Effective date :** 02.08.2015

**Talcum Powder 56g**

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

**Product name:** Talcum Powder 56g  
**Manufacturer/Supplier Trade name:**  
**Manufacturer/Supplier Article number:** TL1800-56G  
**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:**

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

**Emergency telephone number:**

**ChemTel: (24-hour) (US and Canada)**  
 1-(800)-255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**



**Health hazard**  
 Carcinogenicity, category 1A

Carc. 1A.

**Signal word:** Danger

**Hazard statements:**

May cause cancer.

**Precautionary statements:**

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Use personal protective equipment as required.  
 IF exposed or concerned: Get medical advice/attention.  
 Store locked up.  
 Dispose of contents and container to an approved waste disposal plant.

**Other Non-GHS Classification:** None

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

**Ingredients:**

Ingredients:		
CAS 14807-96-6	Hydrous magnesium silicate	>90 %

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Percentages are by weight
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**SECTION 4: First aid measures****Description of first aid measures**

After inhalation: None

After skin contact: None

After eye contact: None

After swallowing: None

**Most important symptoms and effects, both acute and delayed:** None**Indication of any immediate medical attention and special treatment needed:** None**SECTION 5: Firefighting measures****Extinguishing media**

Suitable extinguishing agents: None

Unsuitable extinguishing agents: None

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

Magnesium oxide, silicon oxides.

**Advice for firefighters:**

Protective equipment: None

Additional information (precautions): None

**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures:** None**Environmental precautions:** None**Methods and material for containment and cleaning up:** None**Reference to other sections:** None**SECTION 7: Handling and storage****Precautions for safe handling:** None**Conditions for safe storage, including any incompatibilities:** None**SECTION 8: Exposure controls/personal protection**

**Control parameters:** 14807-96-6, hydrous magnesium silicate, OSHA PEL TWA 2.0 mg/m<sup>3</sup>.  
14807-96-6, hydrous magnesium silicate, NIOSH TWA 2.0 mg/m<sup>3</sup>.  
14807-96-6, hydrous magnesium silicate, ACGIH TLV TWA 2.0 mg/m<sup>3</sup>.

**Appropriate engineering controls:** None**Respiratory protection:** None**Protection of skin:** None**Eye protection:** None**General hygienic measures:** None**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	Not determined	<b>Explosion limit lower:</b>	Not determined
		<b>Explosion limit upper:</b>	Not determined
<b>Odor:</b>	Not determined	<b>Vapor pressure at 20°C:</b>	Not determined
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	Not determined

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<b>pH-value:</b>	Not determined	<b>Relative density:</b>	Not determined
<b>Melting/Freezing point:</b>	Not determined	<b>Solubilities:</b>	None
<b>Boiling point/Boiling range:</b>	Not determined	<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:** None

**Chemical stability:** None

**Possible hazardous reactions:** None

**Conditions to avoid:** None

**Incompatible materials:** None

**Hazardous decomposition products:**

Magnesium oxide, silicon oxides.

**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:** No additional information.

**Bioaccumulative potential:** No additional information.

**Mobility in soil:** No additional information.

**Other adverse effects:** No additional information.

**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

None

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**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:** None

**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:** None

**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):**

Chronic

**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:**

14807-96-6 hydrous magnesium silicate.

**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) :**

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All ingredients are listed.

**SECTION 16: Other information**

This product has been classified in accordance within GHS guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

**NFPA:** 0-0-0

**HMIS:** 0-0-0

**GHS Full Text Phrases:** None

**Abbreviations and Acronyms:** None

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**Effective date :** 01.06.2015

<b>Baking Soda, 56g</b>
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**SECTION 1: Identification of the substance/mixture and of the supplier**

**Product name:** Baking Soda, 56g

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** BS5004-56G

**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:**

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

**Emergency telephone number:**

**ChemTel: (24-hour) (US and Canada)**  
1-(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.

**Other Non-GHS Classification:** None

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

**Ingredients:**

Ingredients:		
CAS 144-55-8	Sodium Bicarbonate	100 %
Percentages are by weight		

**SECTION 4: First aid measures**

**Description of first aid measures**

**After inhalation:**

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**Baking Soda, 56g**

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. If breathing is difficult give oxygen. Get medical assistance if cough or other symptoms appear. Give artificial respiration if necessary.

**After skin contact:**

Wash affected area with soap and water. Seek medical advice if discomfort or irritation persists. Flush with water for 15 minutes.

**After eye contact:**

Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses, if present and easy to do, and continue rinsing. Immediately get medical assistance.

**After swallowing:**

Do not induce vomiting. Dilute mouth with water or milk after rinsing. Seek medical attention immediately.

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

Shortness of breath. Irritation. Nausea. Headache. May cause adverse kidney and liver effects.

**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:** None

**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 eyewear, gloves, and clothing. Refer to Section 8.

**Additional information (precautions):**

Avoid contact with skin, eyes, and clothing. Avoid generating dust.

**SECTION 6: Accidental release measures**

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

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. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Use proper personal protective equipment. Avoid contact with eyes, skin, and clothing. Avoid dust generation.

**Environmental precautions:**

Should not be released into environment.

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

Absorb and containerize for disposal. Avoid generating dust. Follow proper disposal methods. Refer to Section 13.

**Reference to other sections:** None

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

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**Baking Soda, 56g**

Wash hands after handling. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Do not inhale gases, fumes, dust, mist, vapor, and aerosols. Do not eat, drink, smoke, or use personal products when handling chemical substances. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Do not eat, drink, smoke, or use personal products when handling chemical substances.

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

Store in a cool location. Refer to Section 5 and 10. Provide ventilation for containers. Keep container tightly closed. Store away from incompatible materials. Protect from freezing and physical damage.

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



**Control parameters:**

, , OSHA PEL TWA (Total Dust) 15 mg/m<sup>3</sup> (50 mppcf\*).  
, , ACGIH TLV TWA (inhalable particles) 10 mg/m<sup>3</sup>.

**Appropriate engineering controls:**

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. 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. Normal ventilation is adequate.

**Respiratory protection:**

Not required under normal conditions of use.

**Protection of skin:**

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Wear protective clothing.

**Eye protection:**

Safety glasses with side shields or goggles.

**General hygienic measures:**

Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Wash hands and exposed skin with soap and plenty of water. Perform routine housekeeping to prevent dust generation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>		<b>Explosion limit lower:</b>	Non Explosive
		<b>Explosion limit upper:</b>	Non Explosive
<b>Odor:</b>	Odorless	<b>Vapor pressure at 20°C:</b>	Not applicable
<b>Odor threshold:</b>	Not applicable	<b>Vapor density:</b>	Not applicable
<b>pH-value:</b>	Not available	<b>Relative density:</b>	Not available
<b>Melting/Freezing point:</b>	270°C	<b>Solubilities:</b>	Slightly soluble in water.
<b>Boiling point/Boiling range:</b>	Not available	<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>Flash point (closed cup):</b>	Not applicable	<b>Auto/Self-ignition temperature:</b>	Not applicable



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Baking Soda, 56g			
<b>Evaporation rate:</b>	Not available	<b>Decomposition temperature:</b>	>50C
<b>Flammability (solid, gaseous):</b>	Not applicable	<b>Viscosity:</b>	a. Kinematic: Not applicable b. Dynamic: Not applicable
<b>Density at 20°C:</b>	Not available		
<b>Molecular weight:</b>	84.01		

### SECTION 10: Stability and reactivity

**Reactivity:**

None under normal processing.

**Chemical stability:**

moisture sensitive. Heat sensitive.

**Possible hazardous reactions:**

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

**Conditions to avoid:**

Exposure to moisture or water. temperatures above 50C. Dust generation. Incompatible Materials.

**Incompatible materials:**

Strong oxidizers. Strong acids.

**Hazardous decomposition products:**

Carbon oxides. Sodium oxides.

### SECTION 11: Toxicological information

**Acute Toxicity:** No additional information.

**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:**

Fish: LC50 (96h) L. macrochius, 8250-9000 mg/L.

Crustacea: EC50 (48h) D. magna, 2350 mg/L.

Ecotoxicity, Should not be released into environment.

**Persistence and degradability:** No additional information.

**Bioaccumulative potential:** No additional information.

**Mobility in soil:** No additional information.

**Other adverse effects:** No additional information.

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**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

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.

**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:** None

**Packing Group:** Not regulated.

**Marine Pollutant (if applicable):** No

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Not regulated.

**Hazard Class:** None

**Packing Group:** Not regulated.

**Marine Pollutant (if applicable):** No

**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:**

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:**

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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:** 2-0-1

**HMIS:** 2-0-1

**GHS Full Text Phrases:** None

**Abbreviations and Acronyms:**

IMDG International Maritime Code for Dangerous Goods.  
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.  
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).

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**Baking Powder**

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

**Product name:** Baking Powder

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** BP5012

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

**Manufacturer Details:**

AquaPhoenix Scientific, Inc.  
9 Barnhart Drive  
Hanover, PA 17331  
1-717-632-1291

**Emergency telephone number:**

**ChemTel: (24-hour)**

+1(800)255-3924

+1(813)248-0585 (International)

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**

Not classified for physical or health hazards under GHS.

**Signal word:** Warning

**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:**

Ingredients:		
CAS N/A	Baking Powder	100 %
Percentages are by weight		

**SECTION 4: First aid measures.**

**Description of first aid measures**

**After inhalation:**

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

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symptoms appear.

**After skin contact:**

Rinse/flush exposed skin gently using soap and water for 15-20 minutes. Seek medical advice if discomfort or irritation persists.

**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.

**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. Never give anything by mouth to an unconscious person.

**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. 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:** None

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

Combustion products may include carbon oxides or other toxic vapors. Thermal decomposition can lead to release of irritating gases and vapors.

**Advice for firefighters:**

**Protective equipment:**

Use NIOSH-approved respiratory protection/breathing apparatus.

**Additional information (precautions):**

Move product containers away from fire or keep cool with water spray as a protective measure, where feasible. Use spark-proof tools and explosion-proof equipment. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. 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:**

Wear protective equipment. Ensure that air-handling systems are operational. Ensure adequate ventilation.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13. Should not be released into environment.

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

Keep in suitable closed containers for disposal. Wear protective eyewear, gloves, and clothing. Always obey local regulations. Refer to Section 8. Avoid dispersal of dust in the air. Evacuate personnel to safe areas.

**Reference to other sections:** None

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

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**Baking Powder**

Minimize dust generation and accumulation. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with eyes, skin, and clothing.

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

Store away from incompatible materials. Protect from freezing and physical damage. Keep away from food and beverages. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store in cool, dry conditions in well sealed containers. Store with like hazards.

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



**Control parameters:**

, Nuisance dust, ACGIH TLV TWA:10mg/m<sup>3</sup> (inhalable particles).  
, Nuisance dust, OSHA PEL TWA: 15 mg/m<sup>3</sup> (total dust).

**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 dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use under a fume hood.

**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.

**Protection of skin:**

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.

**Eye protection:**

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.

**General hygienic measures:**

Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>		<b>Explosion limit lower:</b>	Not determined
		<b>Explosion limit upper:</b>	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

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Baking Powder			
<b>pH-value:</b>	Not determined	<b>Relative density:</b>	Not determined
<b>Melting/Freezing point:</b>	270C	<b>Solubilities:</b>	soluble; ~10g/100ml water
<b>Boiling point/Boiling range:</b>	Not determined	<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:**

Nonreactive under normal conditions.

**Chemical stability:**

Stable under normal conditions.

**Possible hazardous reactions:**

None under normal processing.

**Conditions to avoid:**

Incompatible Materials.

**Incompatible materials:**

Strong acids. Strong bases. Oxidizing agents.

**Hazardous decomposition products:** None

### SECTION 11: Toxicological information

**Acute Toxicity:**

**Dermal:**

LD50 Rabbit >3600 mg/kg NLM\_CIP.

**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:** No additional information.

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

**Effective date :** 10.24.2014

**Baking Powder**

**Bioaccumulative potential:** No additional information.

**Mobility in soil:** No additional information.

**Other adverse effects:** No additional information.

**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

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 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.

**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:** None

**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:** None

**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) :**

9005-25-8 Corn Starch: TSCA XU: substance exempt from reporting: not listed.

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

None of the ingredients are listed.

**Proposition 65 (California):**



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

**Effective date :** 10.24.2014

**Baking Powder**

**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 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:** None

**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.

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

**Effective date :** 11.05.2014

<b>Corn Starch</b>
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**SECTION 1: Identification of the substance/mixture and of the supplier**

**Product name:** Corn Starch  
**Manufacturer/Supplier Trade name:**  
**Manufacturer/Supplier Article number:** CR5016  
**Recommended uses of the product and restrictions on use:** Laboratory

**Manufacturer Details:**

AquaPhoenix Scientific, Inc.  
 9 Barnhart Drive  
 Hanover, PA 17331  
 1-717-632-1291

**Emergency telephone number:**

**ChemTel: (24-hour)**  
 +1(800)255-3924  
 +1(813)248-0585 (International)

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**

May form combustible dust concentrations in air.

**Signal word:** Warning

**Hazard statements:**

None

**Precautionary statements:**

None

**Other Non-GHS Classification:** None

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

**Ingredients:**

Ingredients:		
CAS 9005-25-8	Starch, Potato, Reagent Grade	>90 %
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. Consult a physician.

**After skin contact:**

Wash hands and exposed skin with soap and plenty of water. Consult a physician.

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

**Effective date :** 11.05.2014

**Corn Starch**

**After eye contact:**

Flush eyes with water as a precaution.

**After swallowing:**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Irritation. Headache. Shortness of breath. Nausea.

**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. Do not inhale gases, fumes, dust, mist, vapor, and aerosols.

**Unsuitable extinguishing agents:** None

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

Carbon oxides may be released.

**Advice for firefighters:**

**Protective equipment:**

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

**Additional information (precautions):**

Avoid generating dust.

**SECTION 6: Accidental release measures**

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

Ensure adequate ventilation. Ensure that dust-handling systems (exhaust ducts, dust collectors, vessels, and processing equipment) are designed to prevent the escape of dust into the work area.

**Environmental precautions:**

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

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

Sweep up and containerize for disposal. Avoid generating dust. Always obey local regulations. Sweep up and shovel. Keep in suitable closed containers for disposal. Follow proper disposal methods. Refer to Section 13.

**Reference to other sections:** None

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions refer to Section 2.

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

Keep container tightly closed in a cool, dry, well-ventilated area. Store away from incompatible materials. Refer to Sections 5 and 10.

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

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

Effective date : 11.05.2014

**Corn Starch**



<b>Control parameters:</b>	<p>9005-25-8, High-polymeric carbohydrate material., 10 mg/m<sup>3</sup> USA. ACGIH Threshold Limit Values (TLV).</p> <p>9005-25-8, High-polymeric carbohydrate material., 15 mg/m<sup>3</sup> USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants.</p> <p>9005-25-8, High-polymeric carbohydrate material., 5 mg/m<sup>3</sup> USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants.</p> <p>9005-25-8, High-polymeric carbohydrate material., 5 mg/m<sup>3</sup> USA. NIOSH Recommended Exposure Limits.</p> <p>9005-25-8, High-polymeric carbohydrate material., 10 mg/m<sup>3</sup> USA. NIOSH Recommended Exposure Limits.</p>
<b>Appropriate engineering controls:</b>	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. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.
<b>Respiratory protection:</b>	Normal ventilation is adequate. 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.
<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.
<b>Eye protection:</b>	Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles.
<b>General hygienic measures:</b>	Perform routine housekeeping to prevent dust generation. Do not eat, drink, smoke, or use personal products when handling chemical substances. Wash hands before breaks and immediately after handling the product.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	White solid	<b>Explosion limit lower:</b>	Not available
		<b>Explosion limit upper:</b>	Not available
<b>Odor:</b>	Not available	<b>Vapor pressure at 20°C:</b>	Not available
<b>Odor threshold:</b>	Not available	<b>Vapor density:</b>	Not available
<b>pH-value:</b>	Not available	<b>Relative density:</b>	Not available
<b>Melting/Freezing point:</b>	Not available	<b>Solubilities:</b>	None
<b>Boiling point/Boiling range:</b>	Not available	<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>Flash point (closed cup):</b>	Not available	<b>Auto/Self-ignition temperature:</b>	Not available

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

**Effective date :** 11.05.2014

<b>Corn Starch</b>			
<b>Evaporation rate:</b>	Not available	<b>Decomposition temperature:</b>	Not available
<b>Flammability (solid, gaseous):</b>	May form combustible dust concentrations in air.	<b>Viscosity:</b>	a. Kinematic: Not available b. Dynamic: Not available
<b>Density at 20°C:</b>	Not available		

### SECTION 10: Stability and reactivity

**Reactivity:**

None under normal processing.

**Chemical stability:**

Stable under normal conditions.

**Possible hazardous reactions:** None

**Conditions to avoid:**

Dust generation. Incompatible materials.

**Incompatible materials:**

Strong oxidizing agents.

**Hazardous decomposition products:** None

### SECTION 11: Toxicological information

**Acute Toxicity:** No additional information.

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:**

Skin - Human Result: Mild skin irritation - 3 h 9005-25-8.

**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:** No additional information.

**Bioaccumulative potential:** No additional information.

**Mobility in soil:** No additional information.

**Other adverse effects:** No additional information.

### SECTION 13: Disposal considerations

**Waste disposal recommendations:**

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

**Effective date :** 11.05.2014

**Corn Starch**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. 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.

**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:** None

**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:** None

**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) :**

9005-25-8 Not Regulated.: not listed.

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

None of the ingredients are listed.

**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:**

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

**Effective date :** 11.05.2014

<b>Corn Starch</b>
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None of the ingredients are listed.

**Canada**

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

9005-25-8 Not Regulated.: not listed.

**SECTION 16: Other information**

This product has been classified in accordance within GHS guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

**NFPA:** 0-0-0

**HMIS:** 0-0-0

**GHS Full Text Phrases:** None

**Abbreviations and Acronyms:** None

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

**Effective date :** 01.07.2015

**Powdered Sugar**

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

**Product name:** Powdered Sugar

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** SP5128

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

**Manufacturer Details:**

AquaPhoenix Scientific, Inc.  
9 Barnhart Drive  
Hanover, PA 17331  
1-717-632-1291

**Emergency telephone number:**

**ChemTel: (24-hour)**

+1(800)255-3924

+1(813)248-0585 (International)

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS): Combustible dust.

**Signal word:** Warning

**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.

**Other Non-GHS Classification:** None

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

**Ingredients:**

Ingredients:		
CAS 57-50-1	Sucrose, ACS	>90 %
Percentages are by weight		

**SECTION 4: First aid measures**

**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. If breathing difficult, give oxygen.



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

**Effective date :** 01.07.2015

**Powdered Sugar**

**After skin contact:**

Wash affected area with soap and water. Seek medical attention if irritation persists or if concerned.

**After eye contact:**

Protect unexposed eye. Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance.

**After swallowing:**

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention immediately.

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

Shortness of breath. Irritation. Nausea. Headache.

**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:**

Water fog. Mist. Carbon dioxide. Dry chemical powder. Alcohol foam. Polymer foam. 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:** None

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

May form combustible dust concentrations in air.

**Advice for firefighters:**

**Protective equipment:**

Use NIOSH-approved respiratory protection/breathing apparatus.

**Additional information (precautions):**

Move product containers away from fire or keep cool with water spray as a protective measure, where feasible. Use spark-proof tools and explosion-proof equipment.

**SECTION 6: Accidental release measures**

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

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. Ensure adequate ventilation.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway.

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

If necessary use trained response staff or contractor. Wear protective eyewear, gloves, and clothing. Absorb with suitable absorbent material such as sand or earth and containerize for disposal. Avoid generating dust. Always obey local regulations. Dispose of empty containers as unused product. Refer to Section 13. Refer to Section 8.

**Reference to other sections:** None

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

Minimize dust generation and accumulation. Follow good hygiene procedures when handling chemical

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

Effective date : 01.07.2015

**Powdered Sugar**

materials. Refer to Section 8. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Do not eat, drink, smoke, or use personal products when handling chemical substances. Use only in well ventilated areas. Avoid contact with eyes, skin, and clothing.

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

Store in a cool location. Provide ventilation for containers. Keep container tightly closed. Protect from freezing and physical damage.

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



**Control parameters:**

57-50-1, Sucrose, ACS, ACGIH: 10 mg/m<sup>3</sup> TWA.  
57-50-1, Sucrose, ACS, NIOSH: 10 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable dust).

**Appropriate engineering controls:**

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Ensure that dust-handling systems (exhaust ducts, dust collectors, vessels, and processing equipment) are designed to prevent the escape of dust into the work area. Normal ventilation is adequate.

**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.

**Protection of skin:**

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation.

**Eye protection:**

Safety glasses with side shields.

**General hygienic measures:**

Wash hands before breaks and at the end of work. Before wearing wash contaminated clothing. Perform routine housekeeping to prevent dust generation. Wear protective eyewear, gloves, and clothing.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	White solid	<b>Explosion limit lower:</b>	Non Explosive
		<b>Explosion limit upper:</b>	Non Explosive
<b>Odor:</b>	Odorless	<b>Vapor pressure at 20°C:</b>	Not available
<b>Odor threshold:</b>	Not available	<b>Vapor density:</b>	Not available
<b>pH-value:</b>	5.5 - 7.5 at 342 g/l at 25°C	<b>Relative density:</b>	Not available
<b>Melting/Freezing point:</b>	185 - 187°C	<b>Solubilities:</b>	342 g/l at 20°C
<b>Boiling point/Boiling range:</b>	Not available	<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>Flash point (closed cup):</b>	Not available	<b>Auto/Self-ignition temperature:</b>	Not available
<b>Evaporation rate:</b>	Not available	<b>Decomposition temperature:</b>	Not available
<b>Flammability (solid, gaseous):</b>	Not available	<b>Viscosity:</b>	a. Kinematic: Not available b. Dynamic: Not available
<b>Density at 20°C:</b>	Not available		

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

**Effective date :** 01.07.2015

**Powdered Sugar**

### **SECTION 10: Stability and reactivity**

**Reactivity:**

None under normal processing.

**Chemical stability:**

Stable under normal conditions.

**Possible hazardous reactions:**

None under normal processing.

**Conditions to avoid:**

Oxidizers. Sulfuric acid. Nitric acid.

**Incompatible materials:**

Strong oxidizing agents.

**Hazardous decomposition products:** None

### **SECTION 11: Toxicological information**

**Acute Toxicity:** No additional information.

**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:**

Not persistent.

**Bioaccumulative potential:**

Not readily biodegradable.

**Mobility in soil:** No additional information.

**Other adverse effects:** No additional information.

### **SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

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. Dispose of empty containers as unused product.

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

**Effective date :** 01.07.2015

**Powdered Sugar**

**SECTION 14: Transport information**

**US DOT**

**UN Number:**

ADR, ADN, DOT, IMDG, IATA

Not Dangerous Goods

**Limited Quantity Exception:**

None

**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Not Dangerous Goods.

**Hazard Class:** None

**Packing Group:** Not Dangerous Goods.

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

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Not Dangerous Goods.

**Hazard Class:** None

**Packing Group:** Not Dangerous Goods.

**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:**

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) :**

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

**Effective date :** 01.07.2015

**Powdered Sugar**

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:** None

**Abbreviations and Acronyms:**

IMDG International Maritime Code for Dangerous Goods.  
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.  
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).

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

**Effective date :** 10.24.2014

**Calcium Carbonate, ACS Grade**

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

**Product name:** Calcium Carbonate, ACS Grade

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** KEMCC1016-E

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

**Manufacturer Details:**

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

**Supplier Details:**

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

**Emergency telephone number:**

Emergency Telephone No.: 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:**

Ingredients:		
CAS 471-34-1	Calcium Carbonate	100 %
Percentages are by weight		

**SECTION 4: First aid measures**

**Description of first aid measures**

**After inhalation:**

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

**Effective date :** 10.24.2014

**Calcium Carbonate, ACS Grade**

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

**After skin contact:**

Rinse/flush exposed skin gently using soap and water for 15-20 minutes. Seek medical advice if discomfort or irritation persists.

**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.

**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. Never give anything by mouth to an unconscious person.

**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. Physician should treat symptomatically.

**SECTION 5: Firefighting measures**

**Extinguishing media**

**Suitable extinguishing agents:**

Substance is non-flammable. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

**Unsuitable extinguishing agents:** None

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

Combustion products may include carbon oxides or other toxic vapors. Thermal decomposition can lead to release of irritating gases and vapors.

**Advice for firefighters:**

**Protective equipment:**

Use NIOSH-approved respiratory protection/breathing apparatus.

**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:**

Wear protective equipment. Ensure that air-handling systems are operational. Ensure adequate ventilation.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13. Should not be released into environment.

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

Keep in suitable closed containers for disposal. Wear protective eyewear, gloves, and clothing. Always obey local regulations. Refer to Section 8. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air. Collect solids in powder form using vacuum with HEPA filter. Evacuate personnel to safe areas.

**Reference to other sections:** None

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

Effective date : 10.24.2014

**Calcium Carbonate, ACS Grade**

### SECTION 7: Handling and storage

#### Precautions for safe handling:

Minimize dust generation and accumulation. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with eyes, skin, and clothing.

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

Store away from incompatible materials. Protect from freezing and physical damage. Keep away from food and beverages. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store in cool, dry conditions in well sealed containers. Store with like hazards.

### SECTION 8: Exposure controls/personal protection



#### Control parameters:

, , OSHA PEL TWA (Total Dust) 15 mg/m<sup>3</sup> (50 mppcf\*).  
, , ACGIH TLV TWA (inhalable particles) 10 mg/m<sup>3</sup>.  
471-34-1, , NIOSH REL: TWA 10 mg/m<sup>3</sup> (total) TWA 5 mg/m<sup>3</sup> (resp).

#### 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 dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use under a fume hood.

#### 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.

#### Protection of skin:

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.

#### Eye protection:

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.

#### General hygienic measures:

Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing.

### SECTION 9: Physical and chemical properties



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according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

**Calcium Carbonate, ACS Grade**

<b>Appearance (physical state, color):</b>		<b>Explosion limit lower:</b>	Not determined
		<b>Explosion limit upper:</b>	Not determined
<b>Odor:</b>	Not determined	<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>	8.0	<b>Relative density:</b>	Not determined
<b>Melting/Freezing point:</b>	800 °C (1,472 °F)	<b>Solubilities:</b>	None
<b>Boiling point/Boiling range:</b>	Not determined	<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:**

Nonreactive under normal conditions.

**Chemical stability:**

Stable under normal conditions.

**Possible hazardous reactions:**

None under normal processing.

**Conditions to avoid:**

Incompatible Materials.

**Incompatible materials:**

Strong acids. Strong bases. Oxidizing agents.

**Hazardous decomposition products:** None**SECTION 11: Toxicological information****Acute Toxicity:** No additional information.**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.

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

**Effective date :** 10.24.2014

<b>Calcium Carbonate, ACS Grade</b>
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**Persistence and degradability:** No additional information.

**Bioaccumulative potential:** No additional information.

**Mobility in soil:** No additional information.

**Other adverse effects:** No additional information.

### SECTION 13: Disposal considerations

#### Waste disposal recommendations:

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 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.

### 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:** None

**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:** None

**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.

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

**Effective date :** 10.24.2014

**Calcium Carbonate, ACS Grade**

**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 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:** None

**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.

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

Effective date : 10.24.2014

**Vinegar**

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

**Product name:** Vinegar

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** KEMVN1005-B

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

**Manufacturer Details:**

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

**Supplier Details:**

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

**Emergency telephone number:**

Emergency Telephone No.: 800-255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**

Not classified for physical and health hazards under GHS.

**Signal word:** None

**Hazard statements:**

None

**Precautionary statements:**

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

**Other Non-GHS Classification:** None

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

**Ingredients:**

Ingredients:		
CAS 64-19-7	Acetic Acid	5 %
CAS 7732-18-5	Deionized Water	95 %
Percentages are by weight		

**SECTION 4: First aid measures**

**Description of first aid measures**

**After inhalation:**

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

**Effective date :** 10.24.2014

**Vinegar**

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 persists 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. Immediately get medical assistance if irritation persists or if concerned.

**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.

**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:** None

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

Combustion products may include carbon oxides or other toxic vapors.

**Advice for firefighters:**

**Protective equipment:** None

**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 eyes, skin, and clothing. Remove from all sources of ignition. 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 absorbents. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor. Remove from all sources of ignition. Soak with inert material. Use spark-proof tools and explosion-proof equipment. Always obey local regulations.

**Reference to other sections:** None

**SECTION 7: Handling and storage**

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

Effective date : 10.24.2014

**Vinegar**

**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.

**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.

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



**Control parameters:**

64-19-7, Acetic Acid, ACGIH TLV: 25mg/m<sup>3</sup>, OSHA PEL: 25mg/m<sup>3</sup>.

**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>	Clear, colorless liquid	<b>Explosion limit lower:</b> <b>Explosion limit upper:</b>	0 Vol % 0 Vol %
<b>Odor:</b>	Vinegar-like	<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)
<b>pH-value:</b>	Not determined	<b>Relative density:</b>	1 (Water = 1)
<b>Melting/Freezing point:</b>	0 °C (32 °F)	<b>Solubilities:</b>	Soluble in Water
<b>Boiling point/Boiling range:</b>	100°C (212°F)	<b>Partition coefficient (n-octanol/water):</b>	Not determined

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

**Effective date :** 10.24.2014

Vinegar			
<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/cm <sup>3</sup> (8.345 lbs/gal) at 20 °C (68 °F)		

### SECTION 10: Stability and reactivity

**Reactivity:** None

**Chemical stability:**

No decomposition if used and stored according to specifications.

**Possible hazardous reactions:** None

**Conditions to avoid:**

Store away from oxidizing agents, strong acids or bases.

**Incompatible materials:**

Strong acids. Strong bases. Oxidizers. Metals.

**Hazardous decomposition products:**

Carbon oxides (CO, CO<sub>2</sub>). Irritating fumes.

### SECTION 11: Toxicological information

**Acute Toxicity:**

**Dermal:**

LC50 inhalation-rat: 5620 ppm/ 1hr. (Acetic Acid).

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:**

Classified as a skin irritant. Section 2.

**Serious eye damage/irritation:**

Classified as an eye irritant. Section 2.

**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:**

Ecotoxicity, Acetic Acid has high biochemical oxygen demand, and a potential to cause oxygen depletion in

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

**Effective date :** 10.24.2014

<b>Vinegar</b>
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aquatic systems.

**Persistence and degradability:**

Readily degradable in the environment.

**Bioaccumulative potential:** No additional information.

**Mobility in soil:**

Aqueous solution has high mobility in soil.

**Other adverse effects:** No additional information.

**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. Classify as a hazardous waste.

**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:** None

**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:** None

**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.



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according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 10.24.2014

**Vinegar**

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

64-19-7 Acetic Acid 5000 lb.

**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 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:** None

**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).

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**Effective date** : 10.24.2014

**Vinegar**

DOT US Department of Transportation.

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

**Effective date :** 12.16.2014

**Lugol's Solution**

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

**Product name:** Lugol's Solution

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** IO2821-A

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

**Manufacturer Details:**

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

**Supplier Details:**

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

**Emergency telephone number:**

Emergency Telephone No.: (800) 255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**



**Irritant**

Skin irritation, category 2  
Eye irritation, category 2A

Skin Irritation, Category 2.

Eye Irritation, Category 2.

**Signal word:** Warning

**Hazard statements:**

Causes serious eye irritation.

Causes skin 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.

Wash skin thoroughly after handling.

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

IF ON SKIN: Wash with soap and water.

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.

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.

**Other Non-GHS Classification:** None

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

Effective date : 12.16.2014

**Lugol's Solution**

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

**Ingredients:**

<b>Ingredients:</b>		
CAS 7681-11-0	Potassium Iodide	3 %
CAS 7732-18-5	Deionized Water	95.5 %
CAS 7553-56-2	Iodine	1.5 %
Percentages are by weight		

**SECTION 4: First aid measures**

**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. If breathing difficult, give oxygen.

**After skin contact:**

Wash affected area with soap and water. Rinse thoroughly. Seek medical attention if irritation persists or if concerned.

**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.

**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.

**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.

**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. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing agents:** None

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

Combustion products may include carbon oxides or other toxic vapors. Thermal decomposition can lead to release of irritating gases and vapors.

**Advice for firefighters:**

**Protective equipment:**

Use NIOSH-approved respiratory protection/breathing apparatus.

**Additional information (precautions):**

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

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

**Effective date :** 12.16.2014

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**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.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13. Small quantities may be flushed to drains with plenty of water.

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

**Reference to other sections:** None

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

Wash hands after handling. Follow good hygiene procedures when handling chemical materials. Use only in well ventilated areas. Avoid contact with eyes, skin, and clothing.

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

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:**

7681-11-0, Potassium Iodide, ACS, ACGIH NIOSH 0.01 mg/m3.

**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 dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Use under a fume hood.

**Respiratory protection:**

Use suitable respiratory protective device when high concentrations are present. For spills, respiratory protection may be advisable. Normal ventilation is adequate.

**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. 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**

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<b>Appearance (physical state, color):</b>	Dark brown liquid	<b>Explosion limit lower:</b>	Not determined
		<b>Explosion limit upper:</b>	Not determined
<b>Odor:</b>	Weak iodine odor	<b>Vapor pressure at 20°C:</b>	Not determined
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	0.7
<b>pH-value:</b>	Not determined	<b>Relative density:</b>	Approx 1
<b>Melting/Freezing point:</b>	Approx 0°C	<b>Solubilities:</b>	Soluble in water.
<b>Boiling point/Boiling range:</b>	Approx 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>	> 1	<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:**

Nonreactive under normal conditions.

**Chemical stability:**

No decomposition if used and stored according to specifications.

**Possible hazardous reactions:**

None under normal processing.

**Conditions to avoid:**

exposure to light. Incompatible Materials.

**Incompatible materials:**

Strong acids. Strong bases. Strong oxidizers.

**Hazardous decomposition products:**

Hydrogen iodide. Iodine gas. May include oxides of iodine.

### SECTION 11: Toxicological information

**Acute Toxicity:** No additional information.

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:**

Rabbit: causes irritation. 7681-11-0.

**Serious eye damage/irritation:**

Rabbit: causes irritation. 7681-11-0.

**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.

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**Additional toxicological information:**

No additional information.

**SECTION 12: Ecological information**

**Ecotoxicity:**

Crustacea LC50 Zebra mussel (*Dreissena polymorpha*) 220 - 313 mg/l, 24 hours, 7681-11-0.

Fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 2,190 mg/l - 96 h, 7681-11-0.

**Persistence and degradability:** No additional information.

**Bioaccumulative potential:**

Not expected to bio accumulate.

**Mobility in soil:** No additional information.

**Other adverse effects:** No additional information.

**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

Product/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). Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product. Small amounts may be flushed with water to sewer. Larger volumes must be sent to approve plant for destruction.

**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:** None

**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:** None

**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):**

Acute

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

None of the ingredients are listed.

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**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:**

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:** 1-0-0

**HMIS:** 1-0-0

**GHS Full Text Phrases:** None

**Abbreviations and Acronyms:**

IMDG International Maritime Code for Dangerous Goods.  
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.  
IATA International Air Transport Association.  
GHS Globally Harmonized System of Classification and Labelling of Chemicals.



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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).