

Product Name: Mineral Purifier

Date: 5/22/2018

SECTION 1 **IDENTIFICATION**

Company: The Supply Company, Inc.
6924 E. 38th Street
Tulsa, OK 74145
918-585-2863

U.S. PERS Emergency Telephone: 1-800-633-8253
Product Name: Mineral Purifier
Synonyms: N/A
Chemical Formula: Ag
CAS Number: 7440-22-4
Product Use: Water Purifier

SECTION 2 **HAZARDS IDENTIFICATION**
EMERGENCY OVERVIEW

WARNING



Hazard Statement(s)
H410: Very toxic to aquatic life with long-lasting effects

Precautionary Statement(s)
P273: Avoid release to the environment
P391: Collect Spillage
P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

SECTION 3 **COMPOSITION / INGREDIENTS INFORMATION**

<u>Component</u>	<u>CAS Number</u>	<u>Percent</u>
Nano Silver Powder	7440-22-4	2%

SECTION 4 **FIRST AID MEASURES**

General: Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact: Wash off with soap and plenty of water. Consult a physician.

Eye Contact: Flush eyes with water as a precaution

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

SECTION 5 **FIRE-FIGHTING MEASURES**

Extinguishing Media

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

Special hazards arising from the substance or mixture: No data available.

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6 **ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures: Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and material for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7 **STORAGE AND HANDLING**

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.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Air sensitive. Handle and store under inert gas. Keep in a dry place.

SECTION 8 **EXPOSURE CONTROLS / PERSONAL PROTECTION**

Control Parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control Parameters	Basis
Silver	7440-22-4	TWA	0.010000 mg/m3	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants
		TWA	0.010000 mg/m3	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants
		TWA	0.010000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Argyria		
		TWA	0.010000 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	0.010000 mg/m3	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants
		TWA	0.010000 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	0.100000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Argyria		
		TWA	0.100000 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	0.1 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.01 mg/m3	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants
		PEL	0.01 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

Exposure Controls

Appropriate Engineering Controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal Protective Equipment

Eye/face protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Powder
Appearance:	Copper, Silver, Opaque
Odor:	Not available
Odor Threshold:	Not available
pH:	7-9
Melting Point/Freezing Point:	Melting point/range: 960°C (1,760°F) – lit.
Initial Boiling Point & Boiling Range:	2,212°C (4,014°F) – lit.
Flash Point:	Not available
Evaporation Rate:	Not available
Flammability (solid, gas):	Not available
Upper/Lower Flammability or Explosive Limits:	Not available
Vapor Pressure:	Not available
Vapor Density:	Not available
Relative Density:	10.49 g/cm ³
Water Solubility:	Not available
Partition coefficient (n-octanol/water):	Not available
Auto-ignition Temperature:	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available
Explosive Properties:	Not available
Oxidizing Properties:	Not available

SECTION 10 **STABILITY AND REACTIVITY**

Reactivity: No data available.

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: No data available.

Conditions to Avoid: No data available.

Incompatible Materials: Oxygen, strong acids and strong bases.

Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions. - Silver/silver oxides

SECTION 11 **TOXICOLOGICAL INFORMATION**

Acute Toxicity: LD50 Oral – Rat – male - > 5,000 mg/kg

Skin Corrosion/Irritation: No data available.

Serious Eye Damage/Irritation: No data available.

Respiratory or Skin Sensitization: No data available.

Germ Cell Mutagenicity: No data available.

Tumorigenic: Tumors at site or application.

Carcinogenicity: Rat – Unreported

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, or OSHA.

Reproductive Toxicity: No data available.

Specific Target Organ Toxicity (Repeated Exposure): No data available.

Specific Target Organ Toxicity (Single Exposure): No data available

Aspiration Hazard: No data available.

SECTION 12 **ECOLOGICAL INFORMATION**

Ecology - General: Very toxic to aquatic life with long lasting effects.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available

Other Adverse Effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 **DISPOSAL CONSIDERATIONS**

Waste Treatment Methods

Product: Offer surplus and non -recyclable solutions to a licensed disposal company.

Contaminated Packaging: Dispose of as unused product.

SECTION 14	TRANSPORTATION INFORMATION
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Inner packaging's not over 5.0 kg (11 lbs.) net capacity each for solids, packed in a strong outer packaging:

DOT: **UN Number:** Limited Quantity/ORM-D
 UN Proper Shipping Name: Limited Quantity/ORM-D
 Transport Hazard Class: Limited Quantity/ORM-D
 Packing Group: Limited Quantity/ORM-D

For International can package same as ORM-D but needs Class 9 Label.

Consumer commodity (ORM-D) means a material that is packaged and distributed in a form intended or suitable for sale through retail sales agencies or instrumentalities for consumption by individuals for purposes of personal care or household use. Valid until December 31, 2020.

Inner packaging over 5.0 kg (11 lbs.) net capacity each for solids, packed in a strong outer packaging:

DOT: **UN Number:** 3077
 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID,
 N.O.S. (Silver)
 Transport Hazard Class: 9
 Packing Group: III
 Reportable Quantity: 1 lbs.
 Poison Inhalation Hazard: No

IMDG: **UN Number:** 3077
 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID,
 N.O.S. (Silver)
 Transport Hazard Class: 9
 Packing Group: III
 EMS-No: F-A, S-F
 Marine Pollutant: Yes

IATA: **UN Number:** 3077
 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID,
 N.O.S. (Silver)
 Transport Hazard Class: 9
 Packing Group: III

SECTION 15	REGULATORY INFORMATION
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SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Silver	7440-22-4	1993-04-24

SARA 311/312 Hazards: No SARA Hazards

SAFETY DATA SHEET
Mineral Purifier

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Silver	7440-22-4	1993-04-24

Pennsylvania Right to Know Components

	CAS-No.	Revision Date
Silver	7440-22-4	1993-04-24

New Jersey Right to Know Components

	CAS-No.	Revision Date
Silver	7440-22-4	1993-04-24

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16 <i>OTHER INFORMATION</i>
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NFPA Rating: **Health Hazard:** 0
 Fire Hazard: 0
 Reactivity Hazard: 0

HMIS Rating: **Health Hazard:** 0
 Flammability Hazard: 0
 Physical Hazard: 0

Date: 5/22/2018
The Supply Company Inc.



Product Name: Sanitizer
Date: 2/22/2019

SECTION 1 IDENTIFICATION

Supplier: Phoenix Products Company
55 Container Drive
Terryville, CT 06786
(860) 589-7502

Distributor: Essentials
5070 Wallace Drive
Cumming, GA 30041
(626) 305-1182

U.S. Emergency Telephone: 1-800-222-1222

Product Name: **Sanitizer**
Synonyms: Sodium dichloroisocyanurate dihydrate; Dichlor dihydrate; 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro-, sodium salt dihydrate; Troclosene sodium, dihydrate; SDCC dihydrate; NaDCC dihydrate

Chemical Name: Sodium Dichloro-S-Triazinetrione Dihydrate

Chemical Formula: C₃N₃O₃Cl₂Na.2H₂O

CAS Number: 51580-86-0

Product Use: Disinfects spas and pools.

SECTION 2 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
DANGER - CORROSIVE



Hazard Statement(s)

- H302: Harmful if swallowed
- H312: Harmful in contact with skin
- H318: Causes serious eye damage
- H330: Fatal if inhaled
- H335: May cause respiratory irritation
- H400: Very toxic to aquatic life

Precautionary Statement(s)

- P221: Take any precaution to avoid mixing with other chemicals
- P260: Do not breathe dust, vapours or spray mist.
- P262: Do not get in eyes, on skin, or on clothing.
- P264: Wash thoroughly with soap and water after handling.
- P280: Wear protective gloves, protective clothing, eye protection and face protection.
- P273: Avoid release to the environment
- P321: Specific treatment (see First Aid Measures on this label).
- P362+364: Take off contaminated clothing and wash it before reuse.
- P501: Dispose of contents/container in accordance with national and international regulations

POTENTIAL HEALTH EFFECTS

Eye: This material is corrosive to the eye. Direct contact may cause severe irritation, pain and burns, possibly severe, and permanent damage including blindness. The degree of injury depends on the concentration and duration of contact.

Skin: This material is moderately irritating to the skin. Direct contact with wet material or moist skin may cause severe irritation, pain, and possibly burns. Dry material is less irritating than wet material. This material is not a skin sensitizer based on studies with guinea pigs.

**SECTION 2 HAZARDS IDENTIFICATION - CONTINUED**

Inhalation: This material in the form as sold is not expected to produce respiratory effects. Particles of respirable sizes are generally not encountered. The respirable fraction is typically less than 0.1% by weight for the granular and extra granular grades. If ground or otherwise in a powdered form, effects similar to a corrosive substance may occur. May cause severe irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes. If significant or prolonged exposure occurs, pulmonary edema may develop, either immediately or more often within a period of 5-72 hours. The symptom may include tightness in the chest, dyspnea, frothy sputum, cyanosis, and dizziness. Physical findings may include moist rales, low blood pressure and high pulse pressure. Severe cases may be fatal.

Ingestion: Not a likely route of exposure. Harmful if swallowed. Ingestion may cause immediate pain and severe burns of the mucous membranes. There may be discoloration of the tissues. Swallowing and speech may be difficult at first and then almost impossible. The effects on the esophagus and gastrointestinal tract may range from irritation to severe corrosion. Edema of the epiglottis and shock may occur.

Chronic Exposure/Carcinogenicity: Based on animal studies, exposure to concentrations of monosodium cyanurate at the solubility limit may cause cardiovascular, kidney and urinary bladder effects.

Aggravation of Pre-Existing Conditions: Eye disorders, respiratory disorders, skin disorders and allergies

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS Number</u>	<u>Percent</u>
Sodium Dichloro-S-Triazinetrione Dihydrate	51580-86-0	99%

SECTION 4 FIRST-AID MEASURES

Eye Contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact: Remove contaminated clothing. Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Wash clothing before re-use. Get medical attention immediately.

Inhalation: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Ingestion: Call poison control center, or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Note To Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Suitable Extinguishing Media: Water

Extinguishing Media Not To Be Used: Do not use dry chemical extinguisher containing ammonia compounds.

Fire Fighting Procedure: Cool containers with water spray. Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) in positive pressure mode. On small fires, use water spray or fog. On large fires, use heavy deluge or fog streams. Flooding amounts of water may be required before extinguishment can be accomplished.

Unusual Fire and Explosion Hazards: When heated to decomposition, may release poisonous and corrosive fumes of Nitrogen trichloride, chlorine and CO.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Personal Precautions: For small spills in a well-ventilated areas, wear a NIOSH approved half-face or full face tight fitting respirator or a loose fitting powered air purifying respirator equipped with chlorine cartridges. Chemical goggles should be worn when using a half-face respirator. In addition to respiratory protection, wear coveralls, chemical resistant gloves, chemical resistant footwear; and chemical resistant headgear for overhead exposure. For clean-up of large spills, or small dry spills in confined areas, wear full-face respirator with chlorine cartridges or a positive pressure supplied air respirator. Additionally, body protection should be impervious clothing covering entire body to prevent personal contact with material. **CAUTION** - Protection concerns must also address the following: If this material becomes damp/wet or contaminated in a container, the formation of nitrogen trichloride gas may occur and an explosive condition may exist.

Methods For Cleaning Up: Hazardous concentrations in air may be found in local spill area and immediately downwind. If spill material is still dry, do not put water directly on this product as a gas evolution may occur. **Soil** - Do not contaminate spill material with any organic materials, ammonia, ammonium salts or urea. Clean up all spill material with clean, dry dedicated equipment and place in a clean dry container. **Water** - This material is heavier than and soluble in water. Stop flow of material into water as soon as possible. Begin monitoring for available chlorine and pH immediately. **In Air** - Vapors may be suppressed by the use of water fog.

SECTION 7 HANDLING AND STORAGE

Handling: Do not take internally.
Avoid contact with skin, eyes, and clothing.
Upon contact with skin or eyes, wash off with water.

Storage: Store in a dry, cool, well-ventilated area away from incompatible materials (see "materials to avoid").
Do not store at temperatures above 60°C/140°F.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**EXPOSURE LIMITS:**

COMPONENTS	ACGIH-TLV Data	OSHA (PEL) Data
SODIUM DICHLOROISOCYANURATE DIHYDRATE	Not Determined	Not Determined

Ventilation Requirements: Use local exhaust ventilation to minimize dust and chlorine levels where industrial use occurs. Otherwise ensure good general ventilation.

Personal Protective Equipment:

Respiratory Protection: A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. When dusty conditions are encountered, wear a NIOSH/OSHA full-face respirator with chlorine cartridges for protection against chlorine gas and dust/mist pre-filter.

Hand Protection: Chemical resistant gloves

Eye Protection: Use chemical safety glasses to avoid eye contact. Where industrial use occurs, chemical goggles may be required.

Skin and Body Protection: Impervious body covering clothes, boots and neoprene apron.

Hygiene Measures: Safety shower and eye bath should be provided. Do not eat, drink or smoke until after-work showering and changing clothes.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	White granules
Odor:	Mild chlorine-like
Boiling Point/Range:	Not Applicable
Melting Point/Range:	Not applicable
Flash Point:	Not applicable
Auto-Ignition Temperature:	Not self-ignitable
Vapour Pressure:	Not applicable under standard Conditions
Evaporation Rate (ether=1):	Not applicable under standard conditions
Vapor Density:	Not applicable under standard
Viscosity:	Not applicable
Specific Gravity:	2.0
pH Factor:	5-7
Solubility:	26.25g/100g (26°C)
Density:	Tap density = 0.974 g/mL Pour density = 1.083 g/mL kg/L
Decomposition Temperature:	Begins to lose 1 mole water at approx. 50°C; second mole water at 95°C; Decomposes at 240-250°C.

Section 10 STABILITY AND REACTIVITY

Stability: Stable under normal conditions. Do not package in paper or cardboard. Begins to lose one mole of water at approximately 50°C.

Materials To Avoid: Organic materials, reducing agents, nitrogen containing materials, other oxidizers, acids, bases, oils, grease, sawdust, dry fire extinguishers containing monoammonium compounds.

Conditions To Avoid: Heating above decomposition temperature.

Hazardous Decomposition Products: Nitrogen trichloride, chlorine, carbon monoxide

Hazardous Polymerization: Will not occur.

Summary of Reactivity: Organic Peroxide: No
Pyroforic: No
Water Reactive: No

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity:	
Rat oral LD50	1823 mg/kg
Rat dermal LD50	>2000 mg/kg
Eye irritation (rabbit)	Severe irritant
Dermal irritation (rabbit)	Severe irritant
Dermal sensitization:	Not a sensitizer

Immediately Dangerous To Life or Health (IDLH): No level has been established for the components or the product itself.

Chronic Toxicity: Chronic inhalation exposure may cause impairment of lung function and permanent lung damage.

Mutagenicity: Not mutagenic in five Salmonella strains with or without metabolic activation.

Carcinogenicity: Not classified by IARC, OSHA, EPA. Not included in NTP 11th Report on Carcinogens

Reproductive Toxicity: Sodium dichloroisocyanuric acid when given orally to pregnant mice from day 6 to day 15 of gestation, did not induce any significant teratogenic effects.



SECTION 12 **ECOLOGICAL INFORMATION**

Aquatic toxicity

- 96 Hour-LC50, Fish 0.22 mg/l (rainbow trout)
0.28 mg/l (bluegill sunfish)
- 48 Hour-LC50, Daphnia magna 0.2 mg/l

Avian toxicity:

- Oral LD50, Bobwhite quail 730 mg/kg
- Oral LD50, Mallard duck 3300 mg/kg
- Dietary LC50, Mallard duck >10,000 ppm
- Dietary LC50, Bobwhite quail >10,000 ppm

SECTION 13 **DISPOSAL CONSIDERATIONS**

Waste Disposal: Care must be taken to prevent environmental contamination from the use of this material. Observe all federal, state and local environmental regulations when disposing of this material.

SECTION 14 **TRANSPORTATION INFORMATION**

Non-Bulk Packaging (less than 400kg): Not Regulated under DOT unless transported by Vessel

- DOT: UN Number: NOT REGULATED
- UN Proper Shipping Name: NOT REGULATED
- Transport Hazard Class: NOT REGULATED
- Packing Group: NOT REGULATED

Bulk Packaging (more than 400kg) or Shipment by Vessel: Regulated

- DOT: UN Number: 3077
- UN Proper Shipping Name: Environmentally hazardous substances, solid, n.o.s. (Sodium dichloro-s-triazinetrione dihydrate)
- Transport Hazard Class: 9
- Packing Group: III

- IMDG: UN Number: 3077
- UN Proper Shipping Name: Environmentally hazardous substances, solid, n.o.s. (Sodium dichloro-s-triazinetrione dihydrate)
- Transport Hazard Class: 9
- Packing Group: III
- EmS Number 1: F-A
- EmS Number 2: S-F

- IATA: UN Number: 3077
- UN Proper Shipping Name: Environmentally hazardous substances, solid, n.o.s. (Sodium dichloro-s-triazinetrione dihydrate)
- Transport Hazard Class: 9
- Packing Group: III



SECTION 15 **REGULATORY INFORMATION**

USA

All the components of this substance are listed on or are exempt from the inventory.

- **SARA (311, 312):** This product is categorized as an immediate health hazard, and fire and reactivity physical hazard
- **Massachusetts Right-to-Know Hazardous Substances** - Listed
- **Pennsylvania Right-to-Know Hazardous Substances** – Listed
- **California Proposition 65** – None of the ingredients is listed
- **Waste Classifications:** If this product becomes a waste, it does not meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.
- **Workplace Classification:** This product is considered hazardous under the OSHA Hazard.

SECTION 16 **OTHER INFORMATION**

No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers.

Date: 2/22/2019
Phoenix Products Company



Product Name: Lift
Date: 7/25/2018

SECTION 1 IDENTIFICATION

Supplier: Phoenix Products Company
55 Container Drive
Terryville, CT 06786
(860) 589-7502
Distributor: Essentials
5070 Wallace Drive
Cumming, GA 30041
(626) 305-1182
U.S. Emergency Telephone: 1-800-222-1222
Product Name: Lift
Synonyms: Baking Soda, Sodium Acid Carbonate, Sodium Hydrogen Carbonate, Bicarbonate of Soda
Chemical Name: Sodium Bicarbonate
Chemical Formula: NaHCO₃
CAS Number: 144-55-8
Product Use: Raises total alkalinity level safely in pool water.

SECTION 2 HAZARDS IDENTIFICATION

Emergency Overview

OSHA Regulatory Status: This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122). Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

Potential Health Effects

Routes of Exposure: Ingestion. Eye contact.

Eyes: Dust or powder may irritate eye tissue. If irritation should occur, it is expected to be transient.

Skin: Health injuries are not known or expected under normal use.

Inhalation: Health injuries are not known or expected under normal use.

Ingestion: Expected to be a low ingestion hazard. May cause temporary irritation of the throat, stomach, and gastrointestinal tract.

Target Organs: Eyes.

Chronic Effects: None known.

Potential Environmental Effects: The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

SECTION 3 COMPOSITION, INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS Number</u>	<u>Percent</u>
Sodium Bicarbonate	144-55-8	100%

SECTION 4 **FIRST-AID MEASURES**

Eye Contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if irritation develops or persists.

Skin Contact: Wash off with soap and water. Get medical attention if irritation develops or persists.

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Ingestion: Seek medical advice. If ingestion of a large amount does occur, call a poison control center immediately.

Notes To Physician: Treat symptomatically

SECTION 5 **FIRE FIGHTING MEASURES**

Flammable Properties: This product is not flammable.

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media: None known.

Protection of Firefighters

Protective Equipment and Precautions For Firefighters: Firefighters should wear full protective gear. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Special Protective Equipment For Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6 **ACCIDENTAL RELEASE MEASURES**

Personal Precautions: Keep unnecessary personnel away. Ventilate the area. Wear appropriate protective equipment and clothing during clean-up.

Environmental Precautions: Prevent further leakage or spillage if safe to do so.

Methods For Containment: If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Prevent entry into waterways, sewer, basements or confined areas.

Methods For Cleaning Up: Avoid dust formation.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Large Spills: Collect dust or particulates using a vacuum cleaner with a HEPA filter. Reduce airborne dust and prevent scattering by moistening with water.

Never return spills in original containers for re-use. Clean contaminated surface thoroughly. Clean up in accordance with all applicable regulations.

SECTION 7 HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. See Section 8 of the MSDS for Personal Protective Equipment.

Storage: Keep containers tightly closed.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines: No exposure standards allocated.

Engineering Controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment:

Eye/Face Protection: Use tight fitting goggles if dust is generated.

Skin Protection: Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory Protection: Wear respirator if there is dust formation.

General Hygiene Considerations: Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Crystalline
Form:	Powder
Color:	White
Odor:	Odorless
Odor Threshold:	Not Available
Solubility:	7.8g/100g water @ 18°C (64°F)
Density:	2.2
pH:	8.3 (0.1 molar @ 25°C (77F))
% Volatiles by volume @ 21°C (70°F):	0
Boiling Point:	Not Applicable
Melting Point:	122°F (50°C)
Flash Point:	Not Available
Flammability Limits in Air, Upper, % By Volume:	Not Available
Flammability Limits in Air, Lower, % By Volume:	Not Available
Vapor Density (Air=1):	Not Available
Vapor Pressure (mm Hg):	Not Available
Evaporation Rate (BuAc=1):	Not Available
Specific Gravity:	2.159
Relative Density:	Not Available
Partition Coefficient (n-octanol/water):	Not Available
Auto-ignition Temperature:	Not Available
Molecular Weight:	84.01 g/mol

SECTION 10 **STABILITY AND REACTIVITY**

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Gaseous carbon dioxide.

Hazardous Polymerization: Will not occur.

Incompatibilities: Reacts with acids to form carbon dioxide. Dangerous reaction with monoammonium phosphate or a sodium-potassium alloy.

Conditions to Avoid: Heat, moisture, incompatibles.

SECTION 11 **TOXICOLOGICAL INFORMATION**

Sensitization: Not a skin sensitizer.

Acute Effects: May be harmful if swallowed.

Local Effects: May cause eye irritation.

Chronic Effects: None known.

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Skin Corrosion/Irritation: Not applicable.

Epidemiology: No epidemiological data is available for this product.

Mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproductive Effects: Contains no ingredient listed as toxic to reproduction

SECTION 12 **ECOLOGICAL INFORMATION**

Ecotoxicity: The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Environmental Effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence and Degradability: No data is available on the degradability of this product.

Partition Coefficient (n-octanol/water): Not available

SECTION 13 **DISPOSAL CONSIDERATIONS**

Disposal Instructions: Dispose of contents/container in accordance with local/regional/national/international regulations. Incinerate the material under controlled conditions in an approved incinerator.

Contaminated Packaging: Offer rinsed packaging material to local recycling facilities. Since emptied containers retain product residue, follow label warnings even after container is emptied.

SECTION 14	TRANSPORTATION DATA
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DOT: Not Regulated
TDG: Not Regulated
MEX: Not Regulated
IMDG: Not Regulated
IATA: Not Regulated

SECTION 15	REGULATORY INFORMATION
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US Federal Regulations: This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances: Not applicable.

CERCLA (Superfund) Reportable Quantity: None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
 Delayed Hazard - No
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard – No

Section 311 Hazardous Chemical: No

Food and Drug Administration (FDA):

Total food additive
 Direct food additive
 GRAS food additive

Inventory Status

Country(s) or Region	Inventory Name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State Regulations: This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 15 **REGULATORY INFORMATION - Continued**

Saf-T-Data:

Health: 1 - Slight

Flammability: 0 - None

Reactivity: 1 - Slight

Contact: 1 - Slight

Lab Protective Equip: C - GOGGLES; LAB COAT; PROPER GLOVES

Storage Color Code: G - Green (General Storage)

SECTION 16 **ADDITIONAL INFORMATION**

NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 0

No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers.

Date: 7/25/2018
Phoenix Products Company



Product Name: Lower
Date: 2/15/2019

SECTION 1 **IDENTIFICATION**

Supplier:	Phoenix Products Company 55 Container Drive Terryville, CT 06786 (860) 589-7502	Distributor: Essentials. 5070 Wallace Drive Cumming, GA 30041 (626) 305-1182
U.S. Emergency Telephone:	1-800-222-1222	
Product Name:	Lower	
Synonyms:	Sodium Acid Sulfate; Sodium Hydrogen Sulfate; Nitre Cake; GBS	
Chemical Name:	Sodium Bisulfate	
Chemical Formula:	NaHSO ₄	
CAS Number:	7681-38-1	
Product Use:	Reduces pH in swimming pools and spas.	

SECTION 2 **HAZARDS IDENTIFICATION**

Emergency Overview

Danger



GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Serious eye damage (Category 1), H318

Hazard Statement(s)

- H318: Causes serious eye damage
- H335: May cause respiratory irritation
- H303: May be harmful if swallowed

Precautionary Statement(s)

- P233: Keep container tightly closed.
- P280: Wear protective gloves/eye protection/face protection.
- P262: Do not get in eyes, on skin, or on clothing.
- P271: Use only outdoors or in a well-ventilated area.
- P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
- P310: Immediately call a POISON CENTER or doctor/physician.

Potential Acute Health Effects

Inhalation: Inhalation of dust may irritate nose, throat and/or lungs.

Ingestion: Small amounts (tablespoonful) swallowed are not likely to cause injury; however swallowing large amounts may irritate or burn digestive tract.

Skin Contact: Prolonged exposure may cause skin irritation.

Eye Contact: Causes serious eye irritation.

SECTION 2 **HAZARDS IDENTIFICATION**

Potential Chronic Health Effects

Chronic Effects: Contains material that may cause target organ damage, based on animal data.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental Effects: No known significant effects or critical hazards.

Fertility Effects: No known significant effects or critical hazards.

Target Organs: Contains material which may cause damage to the following organs: mucous membranes, skin, eyes.

SECTION 3 **COMPOSITION, INFORMATION ON INGREDIENTS**

<u>Component</u>	<u>CAS Number</u>	<u>Percent</u>
Sodium Bisulfate	7681-38-1	95%

SECTION 4 **FIRST-AID MEASURES**

Eye Contact: Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. If redness or irritation persists, get prompt medical attention.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 20 minutes. If skin irritation occurs, seek medical attention.

Inhalation: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If irritation or discomfort persists, seek medical attention.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call medical doctor or poison control center immediately.

Protection of First-Aiders: If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Notes to Physician: Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**SECTION 5 FIRE FIGHTING MEASURES**

Flammability of the Product: Non-flammable.

Extinguishing Media

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

Not Suitable: None known.

Special hazards arising from the substance or mixture: Sulfur oxides, Sodium oxides

Special Protective Equipment for Fire-Fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods For Cleaning Up

Small Spill: Stop leak if without risk. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large Spill: Stop leak if without risk. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

SECTION 7 HANDLING AND STORAGE

Handling: Put on appropriate personal protective equipment (see Section 8). Avoid breathing dusts. Wash thoroughly after handling.

Storage: Material is hygroscopic and will readily absorb moisture. DO NOT store dry product where exposed to moist conditions. Keep container tightly closed.

SECTION 8	EXPOSURE CONTROLS/PERSONAL PROTECTION
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Components With Workplace Control Parameters: Contains no substances with occupational exposure limit values.

Recommended Monitoring Procedures: Personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering Measures: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene Measures: Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Personal Protective Equipment

Eye/Face Protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: 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. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental Exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Do not let product enter drains.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Crystalline White Granular
Odor:	Odorless
Odor Threshold:	Not Available
Solubility:	Easily soluble in hot water. Soluble in cold water.
pH:	<1 [Conc. (% w/w): 5%]
Melting/Freezing Point:	177°C (350.6°F)
Boiling Point:	Not Applicable
Flash Point:	Not Available
Specific Gravity:	1.28 g/cm ³
Vapor Density (Air=1):	Not Available
Vapor Pressure (mm Hg):	Not Available
Evaporation Rate (BuAc=1):	Not Available
Partition Coefficient (n-octanol/water):	Not Available
Auto-ignition Temperature:	Not Available
Molecular Weight:	120.6 g/mole

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: The product is stable.

Conditions to Avoid: DO NOT store dry product where exposed to moist conditions.

Incompatible Materials: Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis. DO NOT MIX dry or concentrated solutions of this product with concentrated solutions of chlorine bleach, ammonia cleansers or similar products.

Hazardous Decomposition Products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Possibility of Hazardous Reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

SECTION 11 **TOXICOLOGICAL INFORMATION****Acute Toxicity**

Product/Ingredient Name	Result	Species	Dose	Exposure
Sodium Bisulfate	LD50 Oral	Rat	2800 mg/kg	

Skin Corrosion/Irritation

Skin – rabbit

Result: No skin irritation – 4h (OECD Test Guideline 404)

Serious Eye Damage/Eye Irritation

Eyes – rabbit

Result: Risk of serious damage to eyes. (OECD Test Guideline 405)

Mutagenicity: Not Available**Carcinogenicity:** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.**Reproductive Toxicity:** Not Available**Specific target organ toxicity - single exposure:** Not Available**Specific target organ toxicity - repeated exposure:** Not Available**Aspiration Hazard:** Not Available**Additional Information:** RTECS: VZ1860000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12 **ECOLOGICAL INFORMATION**

Environmental Effects: This product readily dissolves in water to form a weak acid solution. A 0.05 percent or greater (by weight) solution of this product will likely be acutely harmful to aquatic life.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Other Adverse Effects: No known significant effects or critical hazards.

SECTION 13 **DISPOSAL CONSIDERATIONS**

Waste Disposal: The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Empty containers or liners may retain some product residues. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Contaminated Packaging: Dispose of as unused product.

SECTION 14 **TRANSPORTATION DATA**

DOT: **UN Number:** NOT REGULATED
UN Proper Shipping Name: NOT REGULATED
Transport Hazard Class: NOT REGULATED
Packing Group: NOT REGULATED

SECTION 15 **REGULATORY INFORMATION**

United States

HCS Classification : Irritating material
U.S. Federal regulations : United States inventory (TSCA 8b): All components are listed or exempted.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Sodium bisulfate
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium bisulfate:
Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs): Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals): Not listed
DEA List II Chemicals (Essential Chemicals): Not listed

State Regulations

Massachusetts : None of the components are listed.
New York : None of the components are listed.
New Jersey : None of the components are listed.
Pennsylvania : None of the components are listed.
California Prop. 65: No products were found.

Canada

WHMIS (Canada): Class D-2B: Material causing other toxic effects (Toxic).

Canadian Lists

Canadian NPRI: None of the components are listed.
CEPA Toxic substances: None of the components are listed.
Canada inventory: All components are listed or exempted.

International Lists

Australia inventory (AICS): All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.



SECTION 16 ***ADDITIONAL INFORMATION***

NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 0
HMIS Ratings: Health: 1 Chronic Health: - Flammability: 0 Physical: 0

No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers.

Date: 2/15/2019
Phoenix Products Company

Product Name: Refresh
Date: 2/26/19

SECTION 1 **IDENTIFICATION**

Supplier: Phoenix Products Company
55 Container Drive
Terryville, CT 06786
(860) 589-7502

Distributor: Essentials
5070 Wallace Drive
Cumming, GA 30041
(626) 305-1182

U.S. Emergency Telephone: 1-800-222-1222

Product Name: Refresh

Synonyms: Potassium Peroxymonosulfate; Potassium Hydrogen Sulfate; Potassium Monopersulfate Sulfate; Pentapotassium bis(peroxymonosulfate)bis(sulfate); Potassium Peroxysulfate

Chemical Name: Potassium Monopersulfate

Chemical Formula: $\text{HKO}_5\text{S} \cdot 0.5\text{HKO}_4\text{S} \cdot 0.5\text{K}_2\text{O}_4\text{S}$

CAS Number: 70693-62-8

Product Use: Non-Chlorine Water Shock

SECTION 2 **HAZARDS IDENTIFICATION**

EMERGENCY OVERVIEW

Danger



GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing solids (Category 3)
Skin corrosion (Category 1A)
Serious eye damage (Category 1)
Respiratory sensitization (Category 1)
Skin sensitization (Category 1)
Specific target organ toxicity - single exposure (Category 3), Respiratory system

Hazard Statement(s)

H272: May intensify fire; oxidizer.
H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335: May cause respiratory irritation.

Precautionary statement(s)

P210: Keep away from heat.
P220: Keep/Store away from clothing/combustible materials.
P221: Take any precaution to avoid mixing with combustibles.
P260: Do not breathe dust or mist.
P264: Wash skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

SECTION 2 HAZARDS IDENTIFICATION - Continued

P285: In case of inadequate ventilation wear respiratory protection.
P321: Specific treatment (see First Aid Measures on this label).
P363: Wash contaminated clothing before reuse.
P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P501: Dispose of contents/ container to an approved waste disposal plant.

SECTION 3 COMPOSITION, INFORMATION ON INGREDIENTS

Component	CAS Number	Percent
Potassium Monopersulfate	70693-62-8	32.18%
Sodium Carbonate	497-19-8	30.00%
Potassium Sulfate	7778-80-5	20.30%
Potassium Bisulfate	7646-93-7	16.10%
Magnesium Carbonate	546-93-0	1.42%

SECTION 4 FIRST-AID MEASURES

General Advice: Consult a physician. Move out of dangerous area. Show this safety data sheet to the doctor in attendance.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5 FIRE FIGHTING MEASURES**Extinguishing Media**

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

Special hazards arising from the substance or mixture: Carbon oxides, Sulphur oxides, Potassium oxides, Magnesium oxide.

Hazardous Combustion Products: Grinding or intensive mixing may cause decomposition with liberation of heat and oxygen; ignition of oxidizable material if present may occur.

Advice for Firefighters: Wear self contained breathing apparatus for firefighting if necessary.

Further Information: Use water spray to cool unopened containers. Contact with combustible materials may cause fire. Improper storage of large masses of "oxone" can trap heat and lead to ignition of combustibles (see "SECTION 7: **HANDLING AND STORAGE**").

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental Precautions: Do not let product enter drains.

Methods and materials for containment and cleaning up: Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. 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. Keep away from sources of ignition – No smoking. Keep away from heat and sources of ignition.

Special Handling Requirements: Do not inhale. Do not get in eyes, on skin or clothing. Wash thoroughly after handling. Wash clothing after use.

Conditions for Safe Storage: Keep container tightly closed in a dry and well-ventilated place away from heat sources.

Incompatible Materials: The mixture of this product with compounds containing halides or active halogens can cause release of the respective halogen if moisture is present. For example, mixture with chloride can cause release of chlorine gas; mixture with cyanides can cause release of hydrogen cyanide gas; and heavy metal salts such as those of cobalt, nickel, copper, or manganese cause the evolution of oxygen.

Specific End Use(s): Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Components with workplace control parameters: Contains no substances with occupational exposure limit values.

Exposure Controls

Appropriate Engineering Controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 8 **EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued**

Personal Protective Equipment:

Eye/Face Protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: 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. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of Environmental Exposure: Do not let product enter drains.

SECTION 9 **PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	White Granular
Odor:	Odorless
Odor Threshold:	Not Available
pH:	2 at 30 g/l at 77°C (171°F)
Melting Point/Freezing Point:	Not Available
Initial Boiling Point and Boiling Range:	@ 760 mm Hg Decomposes
Flash Point:	Not Available
Evaporation Rate:	Not Available
Flammability (solid, gas):	Not Available
Upper/Lower Flammability or Explosive Limits:	Not Available
Vapor Pressure:	Not Available
Vapor Density:	Not Available
Relative Density:	1.100 - 1.400 g/cm ³
Water Solubility:	25.6 wt% @ 20°C (68°F)
Partition Coefficient (n-octanol/water):	Not Available
Auto-ignition Temperature:	Not Available
Decomposition Temperature:	kJ/kg 251 and Btu/lb 108
Viscosity:	Not Available
Explosive Properties:	Not Available
Oxidizing Properties:	The substance or mixture is classified as oxidizing with the category 3.

SECTION 10 **STABILITY AND REACTIVITY**

Reactivity: Not Available

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Not Available

Conditions to Avoid: Excess heat.

Incompatible Materials: Strong bases, Acids, Bases, Powdered metals, Strong oxidizing agents, Organic materials, Alcohols, acids, phosphorous, Halogens, Anhydrides, Phosphorus, Strong reducing agents

Hazardous Decomposition Products: Decomposes when heated or dampened, releasing oxygen and heat of decomposition.

SECTION 11 **TOXICOLOGICAL INFORMATION**

Oral LD50 (rat): 2,000 mg/kg

Dermal LD50 (rabbit): > 11,000 mg/kg

Inhalation 4-hr LC50 (rat): >5 mg/L

Skin Irritation: Severe skin irritant.

Eye Irritation: Severe eye irritant.

Skin Sensitization: Not a skin sensitizer in animals.

Germ Cell Mutagenicity: Not Available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity: Not Available

Specific Target Organ Toxicity - Single Exposure: Not Available

Specific Target Organ Toxicity - Repeated Exposure: Not Available

Aspiration Hazard: Not Available

SECTION 12 **ECOLOGICAL INFORMATION**

Aquatic Toxicity: 96 hour LC50 – rainbow trout: 53 mg/L
48 hour EC50 – daphnia magna: 3.5 mg/L

Ecotoxicity: Not Available.

Mobility in Soil: Not Available.

Products of Biodegradation: Possibly hazardous short-term degradation products are not likely. However, long-term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Results of PBT and vPvB Assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

SECTION 13 **DISPOSAL CONSIDERATIONS**

Waste Treatment Methods

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated Packaging: Dispose of as unused product.

SECTION 14 **TRANSPORTATION DATA**

Inner packagings not over 5.0 kg (11lbs) net capacity each for solids, packed in a strong outer packaging:

DOT: **UN Number:** N/A
 UN Proper Shipping Name: NOT REGULATED
 Transport Hazard Class: NOT REGULATED
 Packing Group: NOT REGULATED

SECTION 15 **REGULATORY INFORMATION**

California Proposition 65: None of the ingredients is listed

SECTION 16 **ADDITIONAL INFORMATION**

HMIS: Health - 3; Flammability - 0; Physical Hazard - 1

Representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers.

Date: 2/26/19
Phoenix Products Company



Product Name: Guard
Date: 7/25/2018

SECTION 1 IDENTIFICATION

Supplier: Phoenix Products Company
55 Container Drive
Terryville, CT 06786
(860) 589-7502

Distributor: Essentials
5070 Wallace Drive
Cumming, GA 30041
(626) 305-1182

U.S. Emergency Telephone: 1-800-222-1222
Product Name: Guard
Synonyms: Etidronic Acid; 1-Hydroxyethylidene-1,1-diphosphonic acid; HEDP
Chemical Name: (1-Hydroxyethylidene)diphosphonic acid
Chemical Formula: C₂H₈O₇P₂
CAS Number: 2809-21-4
Product Use: Prevents and removes mineral stains in pools and spas.

SECTION 2 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW



GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Corrosive to metals (Category 1)
Serious eye damage (Category 1)

OSHA Hazards: Irritant
Target Organs: Bone, Kidney

Hazard Statement(s)
H290: May be corrosive to metals
H318: Causes serious eye damage

Precautionary Statement(s)
P280: Wear protective gloves/eye protection/face protection.
P234: Keep only in original container.
P321: Specific treatment (see First Aid Measures on this label).
P310: Immediately call a POISON CENTER or doctor/physician
P390: Absorb spillage to prevent material damage.
P406: Store in corrosive resistant stainless steel container with a resistant inner liner.

HMIS Classification	
Health Hazard	2
Flammability	0
Physical Hazards	0

SECTION 2 **HAZARDS IDENTIFICATION - Continued**

NFPA Rating	
Health Hazard	2
Fire	0
Reactivity Hazard	0

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

SECTION 3 **COMPOSITION, INFORMATION ON INGREDIENTS**

<u>Component</u>	<u>CAS Number</u>	<u>Percent</u>
(1-Hydroxyethylidene)diphosphonic acid	2809-21-4	5%-25%

SECTION 4 **FIRST-AID MEASURES**

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact: Wash off with soap and plenty of water. Consult a physician.

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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

SECTION 5 **FIRE FIGHTING MEASURES****Extinguishing Media**

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

Special hazards arising from the substance or mixture: Carbon oxides, Oxides of phosphorus.

Advice for Firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6 **ACCIDENTAL RELEASE MEASURES**

Personal Precautions: Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SECTION 7 **HANDLING AND STORAGE**

Precautions for Safe Handling: Avoid inhalation of vapor or mist. Normal measures for preventive fire protection.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store at room temperature.

SECTION 8 **EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control Parameters

Components with workplace control parameters: Contains no substances with occupational exposure limit values.

Exposure Controls

Appropriate Engineering Controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal Protective Equipment

Eye/Face Protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of Environmental Exposure: Do not let product enter drains.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless to pale yellow liquid.
Odor:	Mild. Vinegar like.
Odor Threshold:	Not Available
pH (1% solution):	<2.0
Melting Point	198-199°C
Boiling Point:	578.8°C at 760 mmHg
Flash Point:	303.8°C
Stability:	Stable under ordinary conditions.
Evaporation Rate:	Not Available
Flammability (solid, gas):	Not Available
Upper/Lower Flammability or Explosive Limits:	Not Available
Vapor Pressure (mm Hg):	8.34E-16mmHg at 25°C
Density @ 25°C:	1.45 g/mL
Specific Gravity:	1.43 – 1.46
Solubility in Water:	Completely miscible with water in all proportions.
Partition Coefficient (n-octanol/water):	log Pow: -3,49
Auto-ignition Temperature:	Not Available
Decomposition Temperature:	Not Available
Viscosity:	Not Available
Explosive Properties:	Not Available
Oxidizing Properties:	Not Available
Molecular Weight:	201.9987

SECTION 10 STABILITY AND REACTIVITY

Reactivity: Not Available.

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Corrosive in contact with metals.

Conditions to Avoid: Not Available

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions. – Carbon oxides, Oxides of phosphorus.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity: LD50 Oral – rat – 2610 mg/kg
LD50 Dermal – rabbit – 8630 mg/kg
Inhalation: Not Available

Skin Corrosion/Irritation: Skin – rabbit – no skin irritation – Draize Test

Serious Eye Damage/Eye Irritation: Eyes – rabbit – Severe eye irritation – OECD Test Guideline 405

Respiratory or Skin Sensitization: Not Available

Germ Cell Mutagenicity: Not Available

SECTION 11 **TOXICOLOGICAL INFORMATION - Continued**

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity: Not Available

Specific target organ toxicity - single exposure: Not Available

Specific target organ toxicity - repeated exposure: Not Available

Aspiration Hazard: Not Available

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion: May be harmful if swallowed.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12 **ECOLOGICAL INFORMATION**

Toxicity

-Toxicity to fish: mortality – *Salmo gairdneri* – 217 mg/l – 96h

-Toxicity to daphnia and other aquatic invertebrates: Immobilization EC50 – *Daphnia magna* (water flea) – 572 mg/l – 48h

-Toxicity to Algae: Growth inhibition – SELENASTRUM – 42 mg/l – 14 d

Persistence and Degradability: Not Available

Bioaccumulative Potential: Not Available

Mobility in Soil: Not Available

Results of PBT and vPvB Assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

Other Adverse Effects: And environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

SECTION 13	DISPOSAL CONSIDERATIONS
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Waste Treatment Methods

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

Contaminated Packaging: Dispose of as unused product.

SECTION 14	TRANSPORTATION DATA
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DOT: **UN Number:** ORM-D
 UN Proper Shipping Name: ORM-D
 Transport Hazard Class: ORM-D
 Packing Group: ORM-D

Consumer commodity (ORM-D) means a material that is packaged and distributed in a form intended or suitable for sale through retail sales agencies or instrumentalities for consumption by individuals for purposes of personal care or household use. Valid until December 31, 2020.



TDG: **UN Number:** 3265
 UN Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
 (1 Hydroxyethylidene)diphosphonic acid
 Transport Hazard Class: 8
 Packing Group: III
 Marine Pollutant: No

MEX: **UN Number:** 3265
 UN Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
 (1 Hydroxyethylidene)diphosphonic acid
 Transport Hazard Class: 8
 Packing Group: III
 Marine Pollutant: No

IMDG: **UN Number:** 3265
 UN Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
 (1 Hydroxyethylidene)diphosphonic acid
 Transport Hazard Class: 8
 Packing Group: III
 EMS-No: F-A, S-B
 Marine Pollutant: No

IATA: **UN Number:** 3265
 UN Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
 (1 Hydroxyethylidene)diphosphonic acid
 Transport Hazard Class: 8
 Packing Group: III

SECTION 15	REGULATORY INFORMATION
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OSHA Hazards: Irritant

DSL Status: All components of this product are on the Canadian DSL list.

SARA 302 Components: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Acute Health Hazard

Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components:	CAS-No.	Revision Date
Etidronic acid	2809-21-4	

New Jersey Right To Know Components:	CAS-No.	Revision Date
Etidronic acid	2809-21-4	

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16	ADDITIONAL INFORMATION
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HMIS Classification	
Health Hazard	2
Flammability	0
Physical Hazards	0

NFPA Rating	
Health Hazard	2
Fire	0
Reactivity Hazard	0

No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers.

Date: 7/25/2018
Phoenix Products Company