Safety Data Sheet

Product Name: FROG® @ease® Mineral Cartridge
Revision Date: October 1, 2016 **Revision:** 1
Supersedes: Rev 0, 05/21/2015

1. Identification

Product Identifier: FROG® @ease® Mineral Cartridge

Other Means of Identification: Calcium carbonate with silver chloride

Recommended Use: Spa water conditioner

Supplier: King Technology, Inc
530 11th Ave S, Hopkins, MN 55343, USA
Phone (952) 933-6118

EPA Registration Number: 53735-11

Emergency Telephone: Chemtrec (800) 424-9300

2. Hazards Identification

GHS Classification: Not classified

GHS Label Elements:
– Signal Word: None

– Pictograms: None

– Hazard Statements: None

– Precautionary Statements: None

Unclassified Hazards: None

Percentage of Ingredients with Unknown Toxicity: Zero

3. Composition / Information on Ingredients

Components CAS	Weight %	ACGIH-TLV Data	OSHA (PEL) Data
Silver chloride 7783-90-6	< 1%	N/A	N/A
Calcium carbonate 471-34-1	>98%	10mg/m3	15mg/m3

The specific percentages of composition have been withheld as trade secrets.

4. First-aid Measures

Eye contact: Hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If irritation occurs, call a doctor for treatment advice.

Skin contact: Flush thoroughly with water.

Inhalation:	Move person to fresh air. If irritation occurs, call a doctor for treatment advice.
Ingestion:	Ingestion of significant amounts is unlikely. If irritation occurs, call a doctor for treatment advice.
Most Important Symptoms, Acute and Delayed:	No known symptoms.
Immediate Medical Attention Required:	None required.

5. Fire-fighting Measures

Suitable Extinguishing Media:	There are no unusual fire or explosion hazards with this material. This material is stable, non-hazardous.
Unsuitable Extinguishing Media:	None known.
Special Protective Equipment and Precautions for Fire-fighters:	There are no unusual fire or explosion hazards with this material. This material is stable, non-hazardous.
Specific Hazards Arising From the Chemical:	None known.

6. Accidental Release Measures

Personal Precautions:	Using appropriate equipment, contain spilled material.
Methods for Cleaning Up:	Product is a non-hazardous solid. Sweep up material and dispose of as normal household waste.

7. Handling and Storage

Handling:	Product is non-hazardous. There are no specific handling requirements.
Storage:	Keep this product in original closed container when not in use. Store in cool, dry, well ventilated area away from open flame.

8. Exposure Controls / Personal Protection

Exposure Limits:	See Section 3.
Appropriate Engineering Controls:	None required.
Personal protective equipment: – Respiratory protection:	None required.

– Hand protection: None required.

– Eye protection: None required.

– Skin and body protection: None required.

Hygiene measures: None required.

Other Precautions: None required.

9. Physical and Chemical Properties

Appearance:	White granular material
Odor:	Not available
Odor threshold:	Not available
Melting point / range:	Not available
Boiling point / range:	Not available
Flash point:	Not available
Evaporation rate:	Not available
Flammability:	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Bulk density:	Not available
Solubility in water:	Not available
Specific gravity:	Not available
pH:	Not available
Flammability limits:	Not available
Partition coefficient:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available

10. Stability and Reactivity

Reactivity: Not reactive under normal conditions.

Stability: This product is stable under normal conditions

Incompatible materials: None known.

Conditions to avoid: None known.

Hazardous decomposition products: None known.

Possibility of hazardous reactions: Hazardous polymerization will not occur under normal conditions.

Product Name: **FROG® @ease® Mineral Cartridge**
Revision Date: **October 1, 2016** **Revision: 1**
Supersedes: **Rev 0, 05/21/2015**

11. Toxicological Information

Acute toxicity: No data available
Carcinogenicity: This product is not listed as a carcinogen by IARC.
This product is not listed as a carcinogen by NTP.
This product is not listed as a carcinogen by OSHA

12. Ecological Information

No data available

13. Disposal Considerations

Waste disposal: Product is a non-hazardous solid. Sweep up material and dispose of as normal household waste.

14. Transportation Information

Not applicable

15. Regulatory Information

EPA FIFRA Information: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

16. Other Information

Date of preparation: October 1, 2016

Details of change from previous version:

- Updated Corporate Logo

This information is given without a warranty or guarantee. No suggestions for use are intended or shall be construed as a recommendation to infringe any existing patents or violate any Federal, State, or local laws. Safe handling and use is the responsibility of the customer. Read the label before using this product. This information is true and accurate to the best of our knowledge.

Prepared by:
King Technology, Inc.
530 11th Ave S
Hopkins, MN 55343 USA
Phone (952) 933-6118

End of safety data sheet

Product Name: FROG® @ease® SmartChlor® Cartridge
Revision Date: October 1, 2016 **Revision:** 1
Supersedes: Rev 0, 05/21/2015

1. Identification

Product Identifier: FROG® @ease® SmartChlor® Cartridge

Other Means of Identification: 1,3-dichloro-5,5-dimethylhydantoin

Recommended Use: Spa and hot tub sanitizer

Supplier: King Technology, Inc.
530 11th Ave S, Hopkins, MN USA
Phone (952) 933-6118

EPA Registration Number: 53735-14

Emergency Telephone: Chemtrec (800) 424-9300

2. Hazards identification

GHS Classification:
Eye Damage: Category 1
Skin Irritation: Category 1
Oxidizing Solids: Category 2
Specific Target Organ Toxicity (Single Exposure): Category 3
Acute Toxicity (Inhalation): Category 4
Acute Toxicity (Oral): Category 4
Acute Toxicity (Dermal): Category 4

GHS Label Elements:
– Signal Word: DANGER

– Pictograms:

– Hazard Statements:
Causes severe skin burns and eye damage
May intensify fire; oxidizer
May cause respiratory irritation
Harmful if inhaled
Harmful if swallowed
Harmful in contact with skin

– Precautionary Statements:
Keep away from heat.
Keep away from clothing or other combustible materials.
Take any precaution to avoid mixing with combustibles.
In case of fire: Use large amounts of water to extinguish.
Do not breathe dusts or mists.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing, and eye and face protection.
Wash exposed areas thoroughly after handling.
Do not eat, drink or smoke when using this product.
In in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
Immediately call a poison center or doctor.
Specific treatment (see First-aid Measures on this safety data sheet).
Take off contaminated clothing and wash it before reuse.
Store locked up in a well-ventilated place. Keep container tightly closed.
Dispose of contents and container in accordance with local/regional/national/international regulations.

Unclassified Hazards: None

Percentage of Ingredients with Unknown Toxicity: Zero

3. Composition / Information on Ingredients

Components CAS	Weight %	ACGIH-TLV Data	OSHA (PEL) Data
1,3-dichloro-5,5-dimethylhydantoin 118-52-5	81.1	0.2 mg/m^3	0.2 mg/m^3
1,3-dichloro-5-ethyl-5-methylhydantoin 89415-87-2	16.1	NE	NE

4. First-aid Measures

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

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Immediately call a doctor for treatment advice.

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

Ingestion: Call poison control center or doctor immediately for treatment advice. Drink plenty of water in small gulps. 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.

Most Important Symptoms, Acute and Delayed: Causes severe skin burns and eye damage. May cause respiratory irritation. Harmful if inhaled, swallowed, or in contact with skin.

Immediate Medical Attention Required: If in eyes, immediately call a poison center or doctor. Otherwise, get medical attention if you feel unwell.

5. Fire-fighting Measures

General hazard: In large fires fueled by other materials, this product may smolder for prolonged periods emitting a dense black smoke. Any spilled material should be considered contaminated. Neutralize to a non-oxidizing material for safe disposal. Material which appears undamaged except for being damp on the outside should be opened and inspected immediately. If the material is damp, it should be neutralized to a non-oxidizing material for safe disposal.

Suitable Extinguishing Media: In case of fire or smoke, call the fire department. Do not attempt to extinguish the fire without a self-contained breathing apparatus (SCBA). Do not let the fire burn. Flood with copious amounts of water.

Unsuitable Extinguishing Media: DO NOT use ABC or other dry chemical extinguishers since there is the potential for a violent reaction.

Special Protective Equipment and Precautions for Fire-fighters: Fires fueled by other materials may release hydrogen bromide, bromine, hydrogen chloride or chlorine. Wear self-contained breathing apparatus. Ammonium phosphate (ABC) fire extinguishers should not be used.

6. Accidental Release Measures

Personal Precautions: Using appropriate protective clothing and safety equipment, contain spilled material.
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Methods for Cleaning Up: Do not add water to spilled material. Using clean dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place into clean dry containers for disposal. Do not use floor sweeping compounds to clean up spills. Do not close containers containing wet or damp material. They should be left open to disperse any hazardous gases that may form. Do not transport wet or damp material. Keep product out of sewers, watersheds and water systems. Do not contaminate water, food, or feed by storage, disposal or cleaning of equipment. Dispose of according to local, state and federal regulations.

7. Handling and Storage

Handling: STRONG OXIDIZING AGENT: Do not mix with other chemicals. Mix only with water. Never add water to product. Always add product to large quantities of water. Use clean dry utensils. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Contamination with moisture, organic matter or other chemicals will start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open air or well ventilated area. Flood area with large volumes of water.

Storage: Keep this product in original closed container when not in use. Store in a cool, dry, well ventilated area away from heat or open flame. Do not contaminate water, food or feed by storage or disposal or cleaning of equipment. Do not store above 125 F (52 C).

8. Exposure Controls / Personal Protection

Exposure Limits: See Section 3.

Appropriate Engineering Controls: General room ventilation plus local exhaust should be used to minimize exposure to dust/vapors.

Personal protective equipment:

– Respiratory protection: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

– Hand protection: Wear rubber gloves when handling this product. Avoid contact with skin.

– Eye protection: Wear goggles or safety glasses with side shields when handling this product.

– Skin and body protection: Wear rubber gloves when handling this product. Avoid contact with skin.

Hygiene measures: Remove and wash contaminated clothing before reuse.

Other Precautions: Facilities using or storing this material should be equipped with an eyewash and safety shower.

9. Physical and Chemical Properties

Appearance:	White granules
Odor:	Not available
Odor threshold:	Not available
Melting point / range:	Not available
Boiling point / range:	Not available
Flash point:	Not available
Evaporation rate:	Not available
Flammability:	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Bulk density:	Not available
Solubility in water:	Not available
Specific gravity:	Not available
pH:	Not available
Flammability limits:	Not available
Partition coefficient:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available

10. Stability and Reactivity

Reactivity: Not reactive under normal conditions.

Stability: This product is stable under normal conditions

Incompatible materials:	Avoid contact with water on concentrated material in the container. Avoid contact with easily oxidizable material; ammonia, urea, or similar nitrogen containing compounds; inorganic reducing compounds; floor sweeping compounds; calcium hypochlorite; other swimming pool/spa chemicals in their concentrated form; alkalis. Avoid contact with all other chemicals.
Conditions to avoid:	High temperature. Poor ventilation. Contamination. Moisture / high humidity.
Hazardous decomposition products:	Hydrogen bromide, bromine, hydrogen chloride, chlorine.
Possibility of hazardous reactions:	Hazardous polymerization will not occur under normal conditions.

11. Toxicological Information

Acute toxicity:	No data available
Carcinogenicity:	This product is not listed as a carcinogen by IARC. This product is not listed as a carcinogen by NTP. This product is not listed as a carcinogen by OSHA

12. Ecological Information

Ecotoxicological Information:	This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or their waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

13. Disposal Considerations

Waste disposal:	Use or reuse if possible. Pesticide wastes are toxic. Improper disposal of excess pesticide or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, Contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment. Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. Contact with incompatible materials could cause a reaction or fire. The user of the material has the responsibility to dispose of unused material, residues, and containers in compliance with all relevant local, state, and federal laws and regulations regarding treatment, storage, and disposal of hazardous waste.
Empty container:	Do not reuse container. Rinse thoroughly before discarding in trash.

14. Transportation Information

DOT:
– Proper shipping name: Oxidizing Solid, N.O.S. (1,3-dichloro-5,5-dimethylhydantoin)
– Primary hazard class: 5.1
– UN/NA Number: 1479
– Packing group II

15. Regulatory Information

EPA FIFRA Information: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER
Corrosive. Causes irreversible eye and skin damage. May be fatal if swallowed. Irritating to nose and throat. Avoid breathing dust and fumes. Do not get in eyes, on skin or on clothing. Wear goggles or safety glasses and rubber gloves when handling product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

USA:
– Sara (311, 312) hazard class: This product or its components are not listed.
– CERCLA: This product or its components are not listed.
– TSCA Regulatory: This product or its components are not subject to export notification.
– TSCA Status: This product or its components are listed on the TSCA Inventory.
– OSHA Hazard Comm. Rule: Product is hazardous by definition of the Hazardous Communication Standard.
– Clean Water Act: Not listed
– FIFRA: This product is a registered pesticide.
– SDWA: Not listed
– Clean Air Act: 40 CFR Part 68 – Not listed

State Regulations: Proposition 65 statement: This product or its components are not listed on any Proposition 65 lists of carcinogens or reproductive toxicants.

16. Other information

Date of preparation: October 1, 2016

Details of change from previous version:
- Updated Corporate Logo

Factors pertaining to certain conditions of storage, handling, and/or use of this product may involve other or additional safety considerations. This information is given without a warranty or guarantee. No suggestions for use are intended or shall be construed as a recommendation to infringe any existing patents or violate any Federal, State or local laws. Safe handling and use is the responsibility of the customer. Read the label before using this

product. This information is true and accurate to the best of our knowledge.

Prepared by:

King Technology, Inc.
530 11th Ave S
Hopkins, MN 55343 USA
Phone (952) 933-6118

End of safety data sheet

Safety Data Sheet

Product Name: FROG® Jump Start
Revision Date: October 1, 2016 **Revision:** 3
Supersedes: Rev 2, 05/20/2015

1. Identification

Product Identifier: FROG® Jump Start

Other Means of Identification: Sodium dichloroisocyanurate ; NaDCCA Dichlor; Sodium dichloro-s-triazinetrione; Chloroisocyanurate

Recommended Use: Swimming pools, spas, hot tubs disinfectant; spa and hot tub shock

Supplier: King Technology, Inc
530 11th Ave S, Hopkins, MN 55343, USA
Phone (952) 933-6118

EPA Registration Number: 53735-12

Emergency Telephone: Chemtrec (800) 424-9300

2. Hazards Identification

GHS Classification:
Eye Damage: Category 1
Skin Irritation: Category 2
Oxidizing Solids: Category 2
Specific Target Organ Toxicity (Single Exposure): Category 3
Acute Toxicity (Inhalation): Category 4
Acute Toxicity (Oral): Category 4
Acute Toxicity (Dermal): Category 4

GHS Label Elements:
– Signal Word: DANGER

– Pictograms:

– Hazard Statements:
Causes serious eye damage
Causes skin irritation
May intensify fire; oxidizer
May cause respiratory irritation
Harmful if inhaled
Harmful if swallowed
Harmful in contact with skin

– Precautionary Statements:
Keep away from heat.
Keep away from clothing or other combustible materials.
Take any precaution to avoid mixing with combustibles.
In case of fire: Use large amounts of water to extinguish.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing, and eye and face protection.
Wash exposed areas thoroughly after handling.
Do not eat, drink or smoke when using this product.
In in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center or doctor.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center or doctor if you feel unwell.
If swallowed: Call a poison center or doctor if you feel unwell.
Rinse mouth.
If on skin: Wash with plenty of water.
If skin irritation occurs: Get medical attention.
Call a poison center or doctor if you feel unwell.
Specific treatment (see First-aid Measures on this safety data sheet).
Take off contaminated clothing and wash it before reuse.
Store locked up in a well-ventilated place. Keep container tightly closed.
Dispose of contents and container in accordance with local/regional/national/international regulations.

Unclassified Hazards: None

Percentage of Ingredients with Unknown Toxicity: Zero

3. Composition / Information on Ingredients

Components CAS	Weight %	ACGIH-TLV Data	OSHA (PEL) Data
Sodium dichloroisocyanurate 2893-78-9	33.3	Not Established	Not Established
Citric acid 77-92-9	35.5	10 mg/m3 total dust	15 mg/m3 total dust
Inerts	31.2		

The specific chemical identities have been withheld as trade secrets.

4. First-aid Measures

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

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. If irritation persists, call a doctor for treatment advice.

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

Ingestion: Call poison control center or doctor immediately for treatment advice. Drink plenty of water in small gulps. 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.

Most Important Symptoms, Acute and Delayed: Causes serious eye damage. Causes skin irritation. May cause respiratory irritation. Harmful if inhaled, swallowed, or in contact with skin.

Immediate Medical Attention Required:	If in eyes, immediately call a poison center or doctor. Otherwise, get medical attention if you feel unwell.

5. Fire-fighting Measures

Flash point:	Not applicable
Auto-ignition temperature:	Not applicable
Suitable Extinguishing Media:	Extinguish with large amounts of water.
Unsuitable Extinguishing Media:	For safety reasons DO NOT use dry chemical extinguisher containing ammonia compounds, dry chemicals, carbon dioxide, halogenated agents.
Special Protective Equipment and Precautions for Fire-fighters:	As in any fire, wear self-contained breathing apparatus with pressure demand (MSHA/NIOSH approved or equivalent) and full protection clothing. Use water spray to cool fire exposed containers.
Specific Hazards Arising From the Chemical:	When heated to decomposition, may release poisonous and corrosive fumes of nitrogen trichloride, chlorine, and carbon monoxide.

6. Accidental Release Measures

Personal Precautions:	For small spills in well ventilated areas wear respiratory protection and wear clothing, chemical resistant gloves, chemical resistant footwear, and chemical resistant headgear for overhead exposure. For cleanup 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 the entire body to prevent personal contact with the material.
Methods for Cleaning Up:	If spill material is still dry, do not put water directly on this product as a gas evolution may occur. 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. CAUTION: Do not use floor sweeping compounds.

7. Handling and Storage

Handling:	Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.
Storage:	Prevent formation of dust. Keep container tightly closed when not in use. Protect from atmospheric moisture and water. Store in a cool, dry, well-ventilated area from heat sources.

8. Exposure Controls and Personal Protection

Exposure Limits – DUST	LIMITS FOR AIR CONTAMINANTS (OSHA) Particulates not otherwise regulated – total dust – TWA 15 mg/m^3 LIMITS FOR AIR CONTAMINANTS (OSHA)

Particulates not otherwise regulated – Respirable fraction – TWA 5 mg/m^3

LIMITS FOR AIR CONTAMINANTS (ACGIH)
Particulates (insoluble or poorly soluble) respirable particles – TWA 3 mg/m^3

LIMITS FOR AIR CONTAMINANTS (ACGIH)
Particulates (insoluble or poorly soluble inhalable particles– TWA 10 mg/m^3

Appropriate Engineering Controls: Set up ventilation to effectively remove and prevent buildup of any dust generated from the handling of this product.

Personal protective equipment:
– Respiratory protection: If ventilation is not sufficient to effectively prevent build up of dust, appropriate NIOSH/OSHA respiratory protection must be provided.

– Hand protection: Wear chemical resistant gloves, such as rubber, neoprene, or nitrile.

– Eye protection: Use chemical safety glasses and face shield to avoid eye contact.

– Skin and body protection: Prevent contact with skin & clothing by using protective garments.

Hygiene measures: Flowing water source should be available. Avoid contact with skin, eyes, and clothing. Do not inhale dust. Remove soiled or soaked clothing immediately.

9. Physical and Chemical Properties

Appearance:	White granular solid
Odor:	Chlorine like bleach
Odor threshold:	Not available
Melting point / range:	Not available
Boiling point / range:	Not available
Flash point:	Not available
Evaporation rate:	Not available
Flammability:	Not available
Vapor pressure:	Not available
Vapor density:	Granular (tap) 1.05 g/ml (pour)0.958 g/ml
Solubility in water:	Not available
Specific gravity:	>1
pH:	4.75 (25°C)
Flammability limits:	Not available
Partition coefficient:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available

10. Stability and Reactivity

Reactivity: Not reactive under normal conditions.

Chemical stability: Stable under normal conditions.

Incompatible materials: Organic materials; combustible materials; ammonia; ammonium compounds; Alkali. Oxidizing agents; reducing agents; acids. Strong bases, alkali metals,

metallic nitrates, oxides of sulfur and potassium tartrate.

Conditions to avoid: Avoid conditions that favor the formation of excessive dust. Avoid excessive heat and sources of ignition. Avoid conditions of moisture.

Hazardous decomposition products: Nitrogen. HCl gas. Chlorine gas. Isocyanic acid. Metal oxide. Nitrogen trichloride. Carbon oxides.

Possibility of hazardous reactions: Will not occur

11. Toxicological Information

No information available.

12. Ecological Information

Adverse effects: Toxic to fish and aquatic life forms. Do not dispose by drainage or into lakes, ponds or public water.

13. Disposal Considerations

Waste disposal: Observe all federal, state, and local regulations. The responsibility for proper waste disposal is with the owner of the waste.

14. Transportation Information

US DOT:
Class: 5.1 – Oxidizing substances
Packing Group: II
Label: OXIDIZER (5.1)
UN/NA number: UN2465
Proper shipping name: Dichloroisocyanurate acid, dry, mixture

Transport IMDG:
Class: 5.1 – Oxidizing substances
Packing Group: II
UN number: UN2465
Proper shipping name: Dichloroisocyanurate acid, dry, mixture
EmS: F-A+S-Q
Label: OXIDIZING AGENT (5.1)
Marine pollutant mark: Symbol “fish and tree”

Transport ICAO/IATA:
Class: 5.1
Packing Group: II
UN number: UN2465
Proper shipping name: Dichloroisocyanurate acid, dry, mixture
Label: OXIDIZER (5.1)

15. Regulatory Information

US Federal Regulations:

EPA FIFRA Information: This chemical is a pesticide product registered by the Environmental

Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER
Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through skin. May be fatal if inhaled. Do not breathe dust or vapors. Irritating to nose and throat. Do not get in eyes, on skin or on clothing. Wear goggles or face shield, protective clothing and rubber gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the restroom. Remove and wash contaminated clothing before reuse.

–Toxic Substances Control Act (TSCA): Hazardous Component(s) subject to reporting on the TSCA List.

–HMIS Classification:
Health = 3
Flammability = 1
Reactivity = 0
PPE = F

–NFPA Rating:
Health = 3
Fire Hazard = 1
Reactivity = 0

– WHMIS hazard class: Hazardous Components(s) subject to WHMIS Ingredient Disclosure

16. Other information

Date of preparation: October 1, 2016

Details of change from previous version:

- Updated Corporate Logo

The information in this Safety Data Sheet should be provided to all who use, handle, store, transport, or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering, operations and management, and for persons working with or handling this product. Additionally, if this Material Safety Data Sheet is more than three years old you should contact King Technology to make certain that this sheet is current.

Although the information and recommendations set forth herein (hereinafter “information”) are presented in good faith and believed to be correct as of the date hereof, King Technology makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its safety and suitability for their purposes prior to use.

In no event will King Technology be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. Factors pertaining to certain conditions of storage, handling, and/or use of this product may involve other or additional safety considerations.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANT ABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY OTHER NATURE, ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

Product Name: **FROG® Jump Start**
Revision Date: **October 1, 2016** **Revision: 3**
Supersedes: **Rev 2, 05/20/2015**

Prepared by:
King Technology, Inc.
530 11th Ave S
Hopkins, MN 55343 USA
Phone (952) 933-6118

End of safety data sheet

Mineral Harmony™

SAFETY DATA SHEET BOOST - 0155

Product Name: Boost
Date: 2/26/2019

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: **Boost**
Synonyms: Not Available
Chemical Name: Calcium Chloride
Chemical Formula: $CaCl_2$
CAS Number: 10043-52-4
Product Use: Increases water hardness and helps prevent corrosion due to soft water.

SECTION 2 *HAZARDS IDENTIFICATION*

EMERGENCY OVERVIEW

May cause skin and eye irritation. May be harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear safety glasses and rubber gloves when handling this product. If product gets on clothing, remove and wash before reuse. Do not mix with other chemicals.

Potential Health Effects

Eyes: May cause eye irritation. Avoid contact with eyes.
Skin: May cause skin irritation. Avoid contact with skin.
Ingestion: Single does oral toxicity is considered wo be low, however, ingestion may cause gastrointestinal irritation or ulceration.
Inhalation: This product is not expected to present an inhalation hazard.
Chronic: There are no known chronic hazards.

Routes of Entry: Skin Contact, Ingestion, Eye Contact.

SECTION 3 *COMPOSITION, INFORMATION ON INGREDIENTS*

Component	CAS Number	Percent
Calcium Chloride	10043-52-4	20%-30%
Sodium Chloride	7647-14-5	<1%
Potassium Chloride	7447-40-7	<1%
Strontium Chloride	10476-85-4	<1%

SECTION 4 *FIRST-AID MEASURES*

Eye Contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.

Skin Contact: Wash with plenty of soap and water. Get medical attention if irritation persists.

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

Inhalation: Not an expected route of overexposure.

SECTION 5 *FIRE FIGHTING MEASURES*

Flashpoint and Method: Not applicable.
General Hazard: This product is not flammable or combustible

Extinguishing Media: This material does not burn. If exposed to fire from another source, use suitable extinguishing agent for that fire.

Fire Fighting Equipment: Firefighters should wear full protective clothing and self-contained breathing apparatus (SCBA). Thoroughly decontaminate fire-fighting equipment including all fire fighting wearing apparel after the incident.

SECTION 6 *ACCIDENTAL RELEASE MEASURES*

General Procedures: Utilizing appropriate clothing and safety equipment, contain spill material. Cover the liquid with an inert absorbent. Using clean, dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place into clean dry plastic containers for disposal. Dispose of according to local, state and federal regulations.

SECTION 7 *HANDLING AND STORAGE*

General Procedures: Avoid contact with eyes, skin or clothing. Avoid breathing dust.
Handling: Mix only with water. Do not mix with other chemicals.

Storage: Keep this product in original tightly closed container when not in use. Do not reuse container, but place in trash collection.

SECTION 8 *EXPOSURE CONTROLS/PERSONAL PROTECTION*

Exposure Guidelines

Exposure Limits

		OSHA PEL		**ACGIH TLV**		**Supplier OEL**	
Calcium Chloride		ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
	TWA	-	-	-	-	10	-
Strontium Chloride	TWA	-	-	-	-	15	-
	STEL	-	-	-	-	15	-

Engineering Controls: General room ventilation plus local exhaust should be used to minimize exposure to dust/vapors.

Personal Protective Equipment

Eyes & Face: Wear goggles or safety glasses with side shields when handling this product.
Skin: Wear rubber gloves when handling this product. Avoid contact with skin.
Respiratory: None required for normal use.

Work Hygienic Practices: Remove and wash contaminated clothing before reuse.

Other Use Precautions: Facilities storing or utilizing this material should be equipped with an eyewash and safety shower.

SECTION 9 *PHYSICAL AND CHEMICAL PROPERTIES*

Appearance:	Hazy Milky White
Odor:	Odorless
pH:	7.5-8.5
Vapor Pressure:	Not Applicable.
Vapor Density:	Not Applicable.
Boiling Point:	~(212°F)
Freezing Point:	Not Established.
Solubility in Water:	Soluble
Specific Gravity:	2.2 g/cc at 25°C

SECTION 10 *STABILITY AND REACTIVITY*

Conditions to Avoid: High temperature. Poor ventilation. Contamination.
Stability: This product is stable under normal conditions.
Polymerization: Hazardous polymerization will not occur under normal conditions.

Hazardous Decomposition Products: Thermal decomposition products may include toxic and corrosive halogen fumes.

Incompatible Materials: Avoid contact of concentrated material with metals. Other swimming pool/spa chemicals in their concentrated forms.

SECTION 11 *TOXICOLOGICAL INFORMATION*

Acute

Skin: >5000 mg/kg in rabbits
Toxicological information given is for the active ingredient.

Oral LD_{50}: 967-1668 mg/kg of body weight in rats.
Toxicological information given is for the active ingredient.

Eye Effects: This product may be irritating to eyes.
Skin Effects: This product may be irritating to skin.

Carcinogenicity

This product is not listed as a carcinogen by IARC.
This product is not listed as a carcinogen by NTP.
This product is not listed as a carcinogen by OSHA.

Mutagenicity: This product is not mutagenic in several in vitro tests.

SECTION 12 *ECOLOGICAL INFORMATION*

Ecotoxicological Information: Based largely on data for the major component, this material is practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100 mg/L in most sensitive species). Using best practices, keep product from entering waterways and watersheds.

SECTION 13 *DISPOSAL CONSIDERATIONS*

Disposal Method: Dispose of product in an approved chemical incinerator or in an approved chemical landfill in accordance with current federal, state and local regulations.

Product Disposal: Disposal of unused, uncontaminated product is regulated according to local, state and federal regulations.

Empty Container: Do not reuse container. Rinse thoroughly before discarding in trash.

SECTION 14 *TRANSPORTATION DATA*

DOT: Not Regulated
TDG: Not Regulated
MEX: Not Regulated
IATA: Not Regulated

SECTION 15 *REGULATORY INFORMATION*

United States

Sara Title III (Superfund Amendments and Reauthorization Act)

313 Reportable Ingredients: This product or its components are not listed.

CERCLA (Comprehensive Response, Compensation, and Liability Act)

CERCLA Regulatory: This product or its components are not listed.

TSCA (Toxic Substance Control Act)

TSCA Regulatory: This product or its components are not subject to export notification.
TSCA Status: This product or its components are listed on the TSCA Inventory.

OSHA Hazard Comm. Rule: Product is hazardous by definition of the Hazardous Communication Standard.
FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act): This product is not a registered pesticide.
California Proposition 65: None of the ingredients is listed

SECTION 16 *ADDITIONAL INFORMATION*

HMIS Classification	
Health	1
Fire	0
Reactivity	0
Protection	B

NFPA Classification	
Health	1
Fire	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: 2/26/2019
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: $NaHCO_3$
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*

Component	CAS Number	Percent
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 @ 18ºC (64ºF)
Density:	2.2
pH:	8.3 (0.1 molar @ 25ºC (77F)
% Volatiles by volume @ 21ºC (70ºF):	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*

DOT: Not Regulated
TDG: Not Regulated
MEX: Not Regulated
IMDG: Not Regulated
IATA: Not Regulated

SECTION 15 *REGULATORY INFORMATION*

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*

Component	CAS Number	Percent
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*

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: $HKO_5S \cdot 0.5HKO_4S \cdot 0.5K_2O_4S$
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/cm3
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

Mineral Harmony™

SAFETY DATA SHEET GUARD - 0251

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: $C_2H_8O_7P_2$
CAS Number: 2809-21-4
Product Use: Prevents and removes mineral stains in pools and spas.

SECTION 2 *HAZARDS IDENTIFICATION*

EMERGENCY OVERVIEW
Danger

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***

Component	CAS Number	Percent
(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*

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.

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SECTION 14 *TRANSPORTATION DATA*

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*

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*

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