amerse™ SPA CARE

SAFETY DATA SHEET
Brominating Tabs - 0090

Product Name: Brominating Tabs
Date: 3/5/2019

SECTION 1 *IDENTIFICATION*

Supplier:
Clearon Corp.
95 MacCorkle Avenue
South Charleston, WV 25303
(304) 720-3671

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

U.S. Emergency Telephone: 1-800-222-1222
Product Name: **Brominating Tabs**
Synonyms: BCDMH; Bromochloro-5,5-dimethylimidazolidine-2,4-dione; 1-Bromo-3-chloro-5,5-dimethyl-2,4-imidazolidinedione; Agribrom; Halobrom; Halogene; Dibromohydantoin; 2,4-Imidazolidinedione
Chemical Name: Bromochloro-5,5-dimethylhydantoin
Chemical Formula: $C_5H_6BrClN_2O_2$
CAS Number: 32718-18-6
Product Use: Sanitizer for pools and spas.

SECTION 2 *HAZARDS IDENTIFICATION*

Emergency Overview
Danger
Corrosive

Hazard Statement(s)

H314: Causes severe skin burns and eye damage
H335: May cause respiratory irritation
H302: Harmful if swallowed
H410: Very toxic to aquatic life with long lasting effects

Precautionary Statement(s)

P260: Do not breathe dust/fume/gas/mist/vapors/spray
P264: Wash hands thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P280: Wear Protective gloves/protective clothing/ eye protection/face protection.
P301+P330+P331: IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340: IF INALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove lenses; if present and easy to do so. Continue Rinsing.
P363: Wash contaminated clothing before reuse
P310: Immediately call a POISON CENTER or doctor/physician
P391: Collect spillage
P405: Store locked up
P403+P233: Store in a well-ventilated place. Keep container tightly closed
P501: Dispose of contents/container in accordance with national and international regulations

SECTION 2 ***HAZARDS IDENTIFICATION - Continued***

Potential Health Effects

Eye Contact: Corrosive. May cause temporary or permanent eye damage.

Skin Contact: Exposure to wet skin may cause burns. May cause sensitization by skin contact

Inhalation: Irritant to upper respiratory tract. Shortness of breath, headache and nausea.

NFPA Ratings (Scale 0-4): Health = 3, Fire = 0, Reactivity = 1.
Special Hazard Warning: OXIDIZER

HMIS Ratings (Scale 0-4): Health = 3, Fire = 0, Reactivity = 1.

SECTION 3 ***COMPOSITION / INFORMATION ON INGREDIENTS***

Component	**CAS Number**	**Percent**
Bromochloro-5,5-dimethylhydantoin	32718-18-6	98%

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 the first 5 minutes, then continue rinsing eye. 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. Call a poison control center or 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 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.

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

SECTION 5 ***FIRE FIGHTING MEASURES***

Suitable Extinguishing Media: Dry powder, carbon dioxide or water spray. In case of exothermic decomposition and appearance of smoke, water should be used to suppress it.

Fire Fighting Procedure: Cool containers with water spray. In closed stores, provide fire-fighters with self-contained breathing apparatus in positive pressure mode.

Unusual Fire and Explosion Hazards: Oxidizing agent. Forms explosive mixtures with combustible, organic or other easily oxidizable materials. When heated to decomposition, may release poisonous and corrosive fumes. Dust may form a weak explosive mixture with air (class St1), but is not sensitive to ignition from electrostatic discharges.

SECTION 6 *ACCIDENTAL RELEASE MEASURES*

Personal Precautions: Evacuate area. Use dust respirator, rubber gloves and chemical safety goggles

Methods For Cleaning Up: Sweep up, place in a suitable container and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete. Avoid access to streams, lakes or ponds.

SECTION 7 *HANDLING AND STORAGE*

Handling: Keep containers tightly closed.

Storage: Keep away from all sources of ignition. Recommended storage temperature below 30°C. For transportation purposes it is possible to store at temperatures up to 50°C. Store in a dry, well-ventilated area. Store away from incompatible materials (see "materials to avoid").

SECTION 8 *EXPOSURE CONTROLS/PERSONAL PROTECTION*

Exposure Limits:

Components	ACGIH-TLV Data	OSHA (PEL) Data
Bromochloro-5,5-dimethylhydantoin 32718-18-6	Not determined	Not determined

Manufacturer's TLV-TWA Recommendation: 0.1 mg/m³

Ventilation Requirements: Use local exhaust as necessary, especially under dusty conditions. Ventilation must be sufficient to maintain atmospheric concentration below recommended exposure limit.

Personal Protective Equipment:

- **Respiratory Protection:** Respirator with combined filter (inorganic gas and dust).
- **Hand Protection:** PVC gloves
- **Eye Protection:** Chemical safety goggles
- **Skin and Body Protection:** Body covering clothes and boots

Hygiene Measures: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Safety shower and eye bath should be provided.

SECTION 9 *PHYSICAL AND CHEMICAL PROPERTIES*

Appearance:	White to off-white tablet with faint halogenous odour
Boiling Point/Range:	Not applicable
Melting Point/Range:	Not applicable (decomposes)
Flash Point:	Not applicable
Flammable/Explosion Limits:	Not available
Auto-Ignition Temperature:	Not available
Vapour Pressure:	9.35x10(-3) Pa (25°C)
Evaporation Rate (ether=1):	Not applicable under standard conditions
Vapor Density:	Not applicable under standard conditions
Solubility (in water):	0.22 g/100ml at 25°C
Specific Gravity:	1.8-2.0
Decomposition Temperature:	> 160°C
Partition Coefficient (n-octanol/water):	Kow = <1 (pH 5-9)
Explosive Properties:	Dust may form a weak explosive mixture with air (class St1), but is not sensitive to ignition from electrostatic discharges.
Oxidizing Properties:	Oxidizer
Particle Size:	Not available

SECTION 10 *STABILITY AND REACTIVITY*

Stability: Stable under normal conditions

Materials To Avoid:
-Oxidizing agents
-Bases
-COMBUSTIBLE ORGANIC MATERIALS

Conditions To Avoid:
-Exposure to moisture
-Contact with combustible materials may initiate decomposition of the material and emission of smoke.
-Heating above decomposition temperature

Hazardous Decomposition Products: CO, HBr, Cl2, NOx, HCl, CO2

Hazardous Polymerization: Will not occur

SECTION 11 *TOXICOLOGICAL INFORMATION*

Acute Toxicity:

- Rat Oral LD50:	929 mg/kg
- Rat Inhalation LC50:	1.1 mg/l/4 hour (powder)
- Dermal Irritation (rabbit):	Corrosive

Dermal Sensitization: Sensitizer.

Chronic Toxicity: Not available

Mutagenicity:
Mutagenic by the Ames Test
Mutagenic in the mouse lymphoma L5178Y test system
Non genotoxic in an in-vivo micronucleus test in mice
Non genotoxic in an in-vivo liver unscheduled DNA synthesis (USD) assay

Carcinogenicity: Not classified by IARC

Not included in NTP 12th Report on Carcinogens

SECTION 12 *ECOLOGICAL INFORMATION*

Aquatic Toxicity:

- 96 Hour-LC50, Fish	1.2 mg/l (Eastern oyster, Acute flow through) 1.9 mg/l (Mysid shrimp, Acute flow through) 0.4 mg/l (Rainbow trout, Static) 0.46 mg/l (Bluegill sunfish, Static) 1.6 mg/l (Sheepshead minnow, Acute flow through)
- 48 Hour-LC50, Daphnia magna	0.75 mg/l (Static)

Avian Toxicity:

- Oral LD50, Bobwhite quail	1839 mg/kg
- Dietary LC50, Mallard duck	>5620 ppm
- Dietary LC50, Bobwhite quail	>5620 ppm

Bioaccumulative Potential: Based on low Kow values, i.e. less than 1, BCDMH would not be predicted to significantly accumulate in aquatic organisms.

Germany, Water Endangering Classes (WGK) 2

SECTION 13 *DISPOSAL CONSIDERATIONS*

Waste Disposal: Dispose of in approved landfill sites or an approved incinerator. Avoid access to streams, lakes or ponds. Observe all federal, state and local environmental regulations when disposing of this material. This material is classified as a RCRA hazardous waste with the characteristic of ignitability, hazardous waste number:D001.

Disposal of Packaging: Crush and bury empty containers. Do NOT throw into public waste disposal site. Avoid contact with organic materials and moisture. See conditions to avoid (Section 10).

SECTION 14 *TRANSPORTATION DATA*

Inner packagings not over 1.0 kg (2.2 lb) net capacity each for solids, packed in a strong outer packaging:

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 agencies or instrumentalities for consumption by individuals for purposes of personal care or household use. Valid until December 31, 2020.

Inner packagings over 1.0 kg (2.2 lb) net capacity each for solids, packed in a strong outer packaging:

DOT:	**UN Number:**	1479
	Proper Shipping Name:	Oxidizing Solid, n.o.s. (Bromo-Chloro-5,5-DimethylHydantoin)
	Class:	5.1 - Oxidizing Substances
	Packing Group:	II
TDG:	**UN Number:**	1479
	Proper Shipping Name:	Oxidizing Solid, n.o.s. (Bromo-Chloro-5,5-DimethylHydantoin)
	Class:	5.1 - Oxidizing Substances
	Packing Group:	II
	Marine Pollutant:	Yes
MEX:	**UN Number:**	1479
	Proper Shipping Name:	Oxidizing Solid, n.o.s. (Bromo-Chloro-5,5-DimethylHydantoin)
	Class:	5.1 - Oxidizing Substances
	Packing Group:	II
	Marine Pollutant:	Yes

SECTION 15 ***REGULATORY INFORMATION***

USA: This product is registered under FIFRA.
TSCA: EPA Number P-94-34.
Subject to reporting under SNUR (Significant New Use Rule) -any use, 60 FR 11037

SARA 313: This product does not contain a chemical listed at or above de minimis concentrations.

SARA (311, 312): This product is a hazardous chemical under 29CFR 1910.1200, and categorized as an immediate and delayed health, and reactivity physical hazard.

Waste Classifications: Not listed under CERCLA. If this product becomes a waste it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number:D001.

EC No.: 251-171-5

Japanese METI:	ENCS No.:5-6368
China inventory:	Listed in IECSC
Philippines:	Listed in PICCS

California Proposition 65: None of the ingredients are listed

SECTION 16 ***ADDITIONAL 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.

amerse™ SPA CARE

SAFETY DATA SHEET
Shock Oxidizer - 0120

Product Name: Shock Oxidizer
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: **Shock Oxidizer**
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*

DOT:	**UN Number:**	NOT REGULATED
	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 are 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

amerse™ SPA CARE

SAFETY DATA SHEET
Metal & Stain Control- 0251

Product Name: Metal & Stain Control
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: **Metal & Stain Control**
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.

.

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: 2/26/2019
Phoenix Products Company

amerse™ SPA CARE

SAFETY DATA SHEET
pH & Alkalinity Up - 0160

Product Name: pH & Alkalinity Up
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: **pH & Alkalinity Up**
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)

California Proposition 65 – None of the ingredients are listed

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: 2/26/2019
Phoenix Products Company

amerse™ SPA CARE

SAFETY DATA SHEET
pH & Alkalinity Down - 0140

Product Name: pH & Alkalinity Down
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: **pH & Alkalinity Down**
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.

SECTION 8 *EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued*

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: 2/26/2019
Phoenix Products Company