



# Safety Data Sheet

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

## 1. Identification

**Product Identifier:** @ ease<sup>™</sup> Mineral Cartridge  
**Other Means of Identification:** Calcium carbonate with silver chloride  
**Recommended Use:** Spa water conditioner  
**Supplier:** King Technology, Inc  
530 11<sup>th</sup> 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.

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**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.

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– **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.



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## 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 11<sup>th</sup> Ave S  
Hopkins, MN 55343 USA  
Phone (952) 933-6118

**End of safety data sheet**

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## 1. Identification

**Product Identifier:** @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 11<sup>th</sup> 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

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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 <sup>3</sup>	0.2 mg/m <sup>3</sup>
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.

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## 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.
- Specific Hazards Arising From the Chemical:** A dust explosion severity determination was performed using the Hartmann Dust Explosibility Bomb designed at the U.S. Bureau of Mines. The product was determined not to be ignitable.

## 6. Accidental Release Measures

- Personal Precautions:** Using appropriate protective clothing and safety equipment, contain spilled material.
- 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.

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**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



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### 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

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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



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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 11<sup>th</sup> Ave S  
Hopkins, MN 55343 USA  
Phone (952) 933-6118

**End of safety data sheet**

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

**Revision:** 3

## 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 11<sup>th</sup> 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.

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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.

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**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<sup>3</sup>

LIMITS FOR AIR CONTAMINANTS (OSHA)

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Particulates not otherwise regulated – Respirable fraction – TWA 5 mg/m<sup>3</sup>

LIMITS FOR AIR CONTAMINANTS (ACGIH)

Particulates (insoluble or poorly soluble) respirable particles – TWA 3 mg/m<sup>3</sup>

LIMITS FOR AIR CONTAMINANTS (ACGIH)

Particulates (insoluble or poorly soluble inhalable particles) – TWA 10 mg/m<sup>3</sup>

**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,

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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



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

**Revision:** 3

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.



## Safety Data Sheet

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

**Revision: 3**

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

**End of safety data sheet**

# mineral buddies

## SAFETY DATA SHEET

Specifically Designed for Mineral Treated Spas

**Product name** **Mineral Buddies™ Shock Treatment**

**Revision date** **10-10-16**

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

**Product ID:** Shock Treatment  
**Chemical Name and Synonyms:** Potassium Monopersulfate Compound  
**Chemical Formula:** Proprietary  
**Chemical Family:** Peroxygen Salt  
**Product Use:** Safe, Effective, Shock Oxidizer Treatment

**Supplier:** Oreq Corporation  
42306 Remington Ave.  
Temecula, CA 92532  
951-296-5076

**Distributor:** Carefree Stuff  
5220 4<sup>th</sup> Street, Ste 2  
Irwindale, CA 91706  
626-337-0611

**Emergency Telephone#** **CHEMTREC 800-424-9300**

### Product hazard category

Acute toxicity (Oral)	Category 4
Skin corrosion	Category 1B
Serious eye damage/eye irritation	Category 1

**SIGNAL WORD:** **DANGER**

### HAZARD PICTOGRAMS:



### Hazardous prevention: measures

P260- Do not breathe dust or mist.  
P264- Wash skin thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.  
P301+330+331- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+361+353- IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P304+312- IF INHALED: Remove victim to fresh air and keep comfortable for breathing.  
P305+351+338- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P307+311- Immediately call a POISON CENTER or doctor/ physician.  
P362+364- Take off contaminated clothing and wash it before reuse.  
P405- Store locked up.  
P501- Dispose of contents/ container to an approved waste disposal plant.

**Product name** Mineral Buddies™ Shock Treatment

**Revision date** 10-10-16

COMPONENT	%	CAS#
Potassium Monopersulfate	32.18%	70693-62-8
Inert ingredients	67.82%	Proprietary

The exact formulation is being withheld as a trade secret.

While some substances are claimed as trade secret in accordance with the provision of OSHA 29 CFR 1910.12009i), all known hazards are clearly communicated within this document.

- General advice :** When symptoms persist or in all cases of doubt seek medical advice.
- Inhalation :** Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth to mouth, if possible. Call a poison control center or doctor for further 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. immediately. Wash contaminated clothing before re-use.
- 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.
- Ingestion :** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do NOT induce vomiting. Do not give anything by mouth to an unconscious person.
- Most important: symptoms/effects, acute and delayed** No applicable data available.
- Protection of first-aiders:** No applicable data available.
- Notes to physician :** No applicable data available.
- Suitable extinguishing media :** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media:** Carbon dioxide (CO2)
- Specific hazards :** The product itself does not burn.  
Hazardous decomposition products Oxygen, Sulphur dioxide, Sulfur trioxide
- Special protective equipment for firefighters:** Wear self-contained breathing apparatus and protective suit.
- Further information :** No applicable data available.

**Product name** Mineral Buddies™ Shock Treatment

**Revision date** 10-10-16

**NOTE:** Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

**Safeguards (Personnel):** Evacuate personnel to safe areas. Use personal protective equipment.

**Environmental precautions :** Try to prevent the material from entering drains or water courses.

**Spill Cleanup:** Sweep up and shovel into suitable containers for disposal. Avoid dust formation. After cleaning, flush away traces with water.

**Accidental Release Measures:** Try to prevent the material from entering drains or water courses. Dispose of in accordance with local regulations.

**Handling:** Use only in well-ventilated areas. Do not breathe dust. Avoid dust formation in confined areas. Avoid contact with skin and eyes. Keep away from heat and flame. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice

**Handling (Physical Aspects):** No applicable data available.

**Dust explosion class:** No applicable data available.

**Storage:** Keep in a dry, cool and well-ventilated place. Protect from contamination. Store in original container. Keep away from: Combustible material Never allow product to get in contact with water during storage. Stable under recommended storage conditions.

**Storage period:** No applicable data available.

**Storage temperature:** No applicable data available

**Engineering controls:** Ensure adequate ventilation.

### Personal protective equipment

**Respiratory protection:** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Hand protection:** Material: Impervious gloves

**Eye protection :** Wear safety glasses or coverall chemical splash goggles.

**Skin and body protection:** Where there is potential for skin contact, have available and wear as appropriate, impervious gloves, apron, pants, jacket, hood and boots. Remove and wash contaminated clothing before re-use.

**Protective measures:** When using do not eat or drink. Do not breathe dust.

### Exposure Guidelines

#### Exposure Limit Values

Potassium Monopersulfate-

Pentapotassium bis(peroxymonosulphate) bis(sulphate)

AEL \* (DUPONT) 1 mg/m<sup>3</sup> 15 minute TWA

**Product name** Mineral Buddies™ Shock Treatment

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Dipotassium peroxodisulphate  
TLV (ACGIH) 0.1 mg/m<sup>3</sup> TWA as persulfate

Potassium sulfate  
AEL \* (DUPONT) 10 mg/m<sup>3</sup> 8 hr. TWA

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

### Appearance (Physical state, form, colour, etc.)

**Form** : Solid form, granular  
**Color** : white  
**Odor** : none  
**Odor threshold** : No applicable data available.  
**pH** : 2.1 at 30 g/l 20 °C (68 °F)  
**Melting point/freezing point** : Melting point  
Decomposes before melting.  
**Boiling point/boiling range** : Boiling point  
Not applicable  
**Flash point** : does not flash  
**Evaporation rate** : No applicable data available.  
**Flammability (solid, gas)** : The product itself does not burn, but it is slightly oxidising (active oxygen content ca. 2%).  
The product is not flammable.  
**Upper explosion limit** : No applicable data available.  
**Lower explosion limit** : No applicable data available.  
**Vapor pressure** : < 0.0000017 hPa  
**Vapour density** : No applicable data available.  
**Density** : No applicable data available.  
**Specific gravity (Relative density)** : 2.35 at 20 °C (68 °F)  
**Bulk density** : 1,100 - 1,400 kg/m<sup>3</sup>  
**Water solubility** : 297 - 357 g/l at 22 °C (72 °F)  
**Solubility(ies)** : No applicable data available.  
**Partition coefficient: n-octanol/water** : No applicable data available.  
**Ignition temperature** : no data available  
**Auto-ignition temperature** : No applicable data available.  
**Decomposition temperature** : No applicable data available.  
**Viscosity** : No applicable data available.  
**Oxidizing Substance** : The substance or mixture is not classified as oxidizing.

**Reactivity:** Stable under recommended storage conditions.

**Stability:** Stable under normal conditions.

**Possibility of hazardous reactions** No applicable data available.

**Product name** Mineral Buddies™ Shock Treatment

**Revision date** 10-10-16

**Conditions to avoid:** Temperature > 50 °C (> 122 °F) Avoid extreme heat.

**Incompatibility:** Halogenated compounds Cyanides, Heavy metal salts

**Hazardous decomposition products:** Oxygen , Sulfur dioxide, Sulfur trioxide products

### Potassium Monopersulfate

Monopersulfate compound

**Inhalation 4 h LC50:** > 5 mg/l, rat  
**Skin irritation:** Species: rabbit, Causes burns.  
**Eye irritation:** Species: rabbit, Severe eye irritation  
**Sensitisation:** Species: guinea pig, Did not cause sensitization on laboratory animals.

May cause sensitization of susceptible persons by skin contact or by inhalation of dust.

Pentapotassium bis(peroxymonosulphate) bis(sulphate)

**Dermal LD50:** > 11,000 mg/kg, rabbit  
**Oral LD50:** 200 - 2,000 mg/kg, rat Gastrointestinal ulceration Internal bleeding  
**Repeated dose toxicity:** Inhalation  
Eyes, corneal damage, Reversible  
Oral  
Stomach, Pathologic changes

**Mutagenicity:** Did not cause genetic damage in cultured bacterial cells., Tests on mammalian cell cultures showed mutagenic effects., Evidence suggests this substance does not cause genetic damage in animals.

**Teratogenicity:** Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

Dipotassium peroxodisulphate

**Dermal LD50:** > 10,000 mg/kg , Rabbit  
**Oral LD50:** 1,130 mg/kg , Rat  
**Repeated dose toxicity:** Oral Rat-  
NOAEL: 131.5 mg/kg Method: OECD Test Guideline 407  
No toxicologically significant effects were found.

**Carcinogenicity:** Not classifiable as a human carcinogen.  
Animal testing did not show any carcinogenic effects. Information given is based on data obtained from similar substances.

**Mutagenicity:** Animal testing did not show any mutagenic effects. Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Information given is based on data obtained from similar substances.

**Reproductive toxicity:** No toxicity to reproduction Animal testing showed no reproductive toxicity. Information given is based on data obtained from similar substances.

**Teratogenicity:** Animal testing showed no developmental toxicity. Information given is based on data obtained from similar substances.

Tetra[carbonato(2-)]dihydroxypentamagnesium

**Oral LD50:** > 2,000 mg/kg , Rat

**Product name** Mineral Buddies™ Shock Treatment  
**Revision date** 10-10-16

**Repeated dose toxicity:** Information given is based on data obtained from similar substances.  
Oral, Rat  
- 90 d  
NOAEL: 1,531 mg/kg Method: OECD Test Guideline 408  
No toxicologically significant effects were found., Information given is based on data obtained from similar substances.

**Carcinogenicity:** Not classifiable as a human carcinogen. Information given is based on data obtained from similar substances. Animal testing did not show any carcinogenic effects.

**Mutagenicity:** Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Evidence suggests this substance does not cause genetic damage in animals. Information given is based on data obtained from similar substances.

**Reproductive toxicity:** No toxicity to reproduction Information given is based on data obtained from similar substances. Animal testing showed no reproductive toxicity.

**Teratogenicity:** Information given is based on data obtained from similar substances. Animal testing showed no developmental toxicity.

### Carcinogenicity

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

### Potassium Monopersulfate

#### Aquatic Toxicity

Pentapotassium bis(peroxymonosulphate) bis(sulphate)

**96 h LC50:** Cyprinodon variegatus (sheepshead minnow) 1.09 mg/l Directive 67/548/EEC, Annex V, C.1.  
**96 h ErC50:** Selenastrum capricornutum (green algae) > 1 mg/l OECD Test Guideline 201  
**72 h NOEC:** Selenastrum capricornutum (green algae) 0.5 mg/l  
**48 h EC50:** Daphnia magna (Water flea) 3.5 mg/l OECD Test Guideline 202  
**37 d:** NOEC Cyprinodon variegatus (sheepshead minnow) 0.222 mg/l  
**28 d:** NOEC Americamysis bahia (mysid shrimp) 0.267 mg/l

Dipotassium peroxodisulphate

**96 h LC50:** Oncorhynchus mykiss (rainbow trout) 76.3 mg/l US EPA Test Guideline OPP 72-1  
Information given is based on data obtained from similar substances.  
**72 h EbC50:** Pseudokirchneriella subcapitata (green algae) 83.7 mg/l OECD Test Guideline 201  
Information given is based on data obtained from similar substances.  
**72 h NOEC:** Pseudokirchneriella subcapitata (green algae) 39.2 mg/l OECD Test Guideline 201  
Information given is based on data obtained from similar substances.  
**48 h EC50:** Daphnia magna (Water flea) 120 mg/l US EPA Test Guideline OPP 72-2  
Information given is based on data obtained from similar substances.

Tetra[carbonato(2-)]dihydropentamagnesium

**96 h LC50:** Pimephales promelas (fathead minnow) 2,120 mg/l



**Product name** Mineral Buddies™ Shock Treatment

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**72 h EC50:**

Information given is based on data obtained from similar substances.  
Desmodesmus subspicatus (green algae) > 100 mg/l OECD Test Guideline 201

**72 h NOEC:**

Information given is based on data obtained from similar substances.  
Desmodesmus subspicatus (green algae) 100 mg/l OECD Test Guideline 201

**48 h EC50:**

Information given is based on data obtained from similar substances.  
Daphnia magna (Water flea) 140 mg/l  
Information given is based on data obtained from similar substances.

**Physico-chemical  
removability:**

hydrolyses

**Environmental Fate**

Dipotassium peroxodisulphate

**Biodegradability:** Readily biodegradable.

Tetra[carbonato(2-)]dihydroxypentamagnesium

**Biodegradability:** The methods for determining biodegradability are not applicable to inorganic substances.

**Waste Disposal Methods:**

Dispose of in accordance with local regulations.

**Contaminated Packaging:**

If recycling is not practicable, dispose of in compliance with local regulations.

**DOT**

**UN-Number:** 3260

**Proper shipping name:** Corrosive solid, acidic, inorganic, n.o.s.  
(Monopersulfate Compound)

**Class:** 8

**Packaging group:** II

**Labeling No.:** 8

**IATA\_C**

**UN number:** 3260

**Proper shipping name:** Corrosive solid, acidic, inorganic, n.o.s.  
(Monopersulfate Compound, )

**Class:** 8

**Packaging group:** II

**Labeling No.:** 8

**IMDG**

**UN number:** 3260

**Proper shipping name:** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.  
(Monopersulfate Compound, )

**Class:** 8

**Packaging group:** II

**Labeling No.:** 8

**Product name** Mineral Buddies™ Shock Treatment  
**Revision date** 10-10-16

**TSCA** : On the inventory, or in compliance with the inventory  
**Other regulations** : Active Ingredient in this composition is POTASSIUMPEROXYMONOSULFATE, CAS. No. 10058-23-8, Concentration: 43-47% (Typical 45%) Active ingredient may also be described by the synonym POTASSIUM MONOPERSULFATE.

**SARA 313 Regulated Chemical(s)** : 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.

**PA Right to Know Regulated Chemical(s)** : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Dipotassium peroxodisulphate

**NJ Right to Know Regulated Chemical(s)** : Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Dipotassium peroxodisulphate,

**Title III hazard Classification** Potassium hydrogensulphate  
: Acute Health Hazard: Yes  
Chronic Health Hazard: No  
Fire: No  
Reactivity/Physical hazard: No  
Pressure: No

**California Prop. 65 :** Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

**DATE OF PREPARATION**  
**10-10-2016**

THE INFORMATION SUPPLIED ABOVE IS PRESENTED IN GOOD FAITH AND HAS BEEN DERIVED FROM SOURCES BELIEVED TO BE RELIABLE, HOWEVER, NO WARRANTY EXPRESSED OR IMPLIED IS EXTENDED REGARDING ITS ACCURACY OR THE RESULTS TO BE OBTAINED FROM ITS USE SINCE CONDITIONS OF USE ARE BEYOND OUR CONTROL. ALL RISKS ARE ASSUMED BY THE USER.

**Product name** Mineral Buddies™ pH & Alk Up  
**Revision date** 10-10-16

### Section 1 Identification

**Product ID:** pH Plus  
**Chemical Name:** Sodium Carbonate, Anhydrous  
**Synonyms:** Sodium carbonate; Carbonic acid, disodium salt; Disodium carbonate  
**Chemical Formula:**  $\text{Na}_2\text{CO}_3$   
**CAS Number:** 497-19-8  
**Product Use:** Raises pH, Prevents Corrosion

**Supplier:** Oreq Corporation  
42306 Remington Ave.  
Temecula, CA 92590  
951-296-5076

**Distributor:** Carefree Stuff  
5220 4<sup>th</sup> Street, Ste 2  
Irwindale, CA 91702  
626-337-0611

**Emergency Telephone#** Chemtrec: 1-800-424-9300

### Section 2 Hazards identification

#### OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 FR 1910.1200)

**GHS CLASSIFICATION:** Serious eye damage/eye irritation- Category 2

**GHS SIGNAL WORD:**

**WARNING**



**HAZARD PICTOGRAMS:**

**HAZARD STATEMENT(S):**

H319 – Causes serious eye irritation

**PRECAUTIONARY STATEMENT(S)- Prevention:**

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear eye protection/ face protection

**PRECAUTIONARY STATEMENT(S)- Response:**

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/ attention

#### Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

#### Other Information

May be harmful if swallowed

### Section 3 Composition / Information on ingredients

#### Ingredients

Chemical Name	CAS-No	Weight %
Sodium carbonate	497-19-8	100

**Formula**  $\text{Na}_2\text{CO}_3$   
**Chemical Family** Alkali salt

**Product name** Mineral Buddies™ pH & Alk Up  
**Revision date** 10-10-16

### Section 4 First - aid measures

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Skin contact** Wash off with warm water and soap. Get medical attention if irritation develops and persists. Remove and wash contaminated clothing before re-use.

**Inhalation** Remove person to fresh air. If signs/symptoms continue, get medical attention.

**Ingestion** Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

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

Causes serious eye damage / eye irritation.

#### Indication of immediate medical attention and special treatment needed, if necessary:

Treat symptomatically

### Section 5 Fire - fighting measures

**Suitable extinguishing media** Use extinguishing agent suitable for type of surrounding fire.

**Specific Hazards Arising from the Chemical** Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

**Hazardous combustion products** Fumes of sodium oxide. Carbon oxides (COx)

**Explosion Data**

Sensitivity to Mechanical Impact Not sensitive.  
Sensitivity to Static Discharge Not sensitive.

**Protective equipment and precautions 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** Avoid dust formation. Sweep up to prevent slipping hazard.

**Other** For further clean-up instructions, call Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

**Environmental Precautions** Do not flush into surface water or sanitary sewer system.

**Methods for containment** Prevent large quantities of this product from contacting vegetation or waterways. Cover with plastic sheet to prevent spreading. Pick up and transfer to properly labeled containers. Keep in suitable and closed containers for disposal.

**Methods for cleaning up** Pick up and transfer to properly labeled containers. Keep in suitable and closed containers for disposal. Dispose of waste as indicated in Section 13.

### Section 7 Handling and storage

**Handling** Use air conveying/mechanical systems for bulk transfer to storage. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment if release of airborne dust is expected.

**Storage** Store in original container. Keep in properly labeled containers. Keep containers tightly closed.

**Incompatible products** Aluminum. Powdered aluminum. Acids

**Product name** Mineral Buddies™ pH & Alk Up  
**Revision date** 10-10-16

### Section 8 Exposure controls / personal protection

#### Control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies Local nuisance dust standards apply.

#### Appropriate engineering controls

**Engineering measures** Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

#### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Tightly fitting safety goggles.  
**Skin and Body Protection** Wear suitable protective clothing. Protective shoes or boots.  
**Hand Protection** Nitrile rubber, Neoprene gloves  
**Respiratory Protection** In case of inadequate ventilation wear respiratory protection.  
**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.  
**General information** These recommendations apply to the product as supplied

### Section 9 Physical and chemical properties

**Appearance** Granules  
**Color** White  
**Physical state** Solid  
**Odor** odorless  
**Odor Threshold** not applicable  
**pH** 11.4 (as aqueous solution)  
**Melting Point/Range** 851 °C  
**Freezing point** No information available  
**Boiling Point/Range** not applicable  
**Flash Point** Not combustible  
**Evaporation rate** Not applicable  
**Flammable (solid, gas)** Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes  
**Flammability Limit in Air**  
**Upper flammability limit:** No information available  
**Lower flammability limit:** No information available  
**Vapor pressure** No information available  
**Vapor density** No information available  
**Density** No information available  
**Specific gravity** 2.52  
**Water solubility** 212.5 g/L @ 20 °C  
**Solubility in other solvents** No information available  
**Partition coefficient:** Not applicable  
**Autoignition Temperature** Not combustible  
**Decomposition Temperature** 400 °C

Specifically Designed for Mineral Treated Spas

**Product name** Mineral Buddies™ pH & Alk Up

**Revision date** 10-10-16

## Section 9 Physical and chemical properties (Continued)

Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	Not explosive
Oxidizing properties	Non-oxidizing
Molecular Weight	105.99
Bulk density	0.86 - 1.12 g/cm <sup>3</sup> (Dense grades) 0.70 - 0.90 g/cm <sup>3</sup> (Light Grades)
Kst	0 bar m/s

## Section 10 Stability and reactivity

Reactivity	None under normal use conditions.
Chemical Stability	Stable. Decomposes by reaction with strong acid.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Exposure to air or moisture over prolonged periods.
Incompatible materials	Aluminium. Powdered aluminum. Acids.
Hazardous Decomposition Products	Sodium oxides. Carbon oxides (CO <sub>x</sub> ).

## Section 11 Toxicological information

### Product Information

LD50 Oral	2,800 mg/kg (rat)
LD50 Dermal	> 2,000 mg/kg (rabbit)
LC50 Inhalation	2.3 mg/L (rat)
Eye Contact	Irritating to eyes.
Skin Contact	Non-irritating
Sensitization	Patch test on human volunteers did not demonstrate sensitization properties.

### Information on toxicological effects

Symptoms	No information available.
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### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity	No known effect.
Mutagenicity	No information available
Carcinogenicity	Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH).
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

**Product name** Mineral Buddies™ pH & Alk Up  
**Revision date** 10-10-16

### Section 12 Ecological information

#### Ecotoxicity

Sodium carbonate (497-19-8)				
Active Ingredient(s)	Duration	Species	Value	Units
Sodium Carbonate	96 h LC50	Bluegill sunfish	300	mg/L
Sodium Carbonate	48 h EC50	Ceriodaphnia	200-227	mg/L

**Persistence and degradability** Biodegradability does not pertain to inorganic substances. .  
**Bioaccumulation** Does not bioaccumulate.  
**Mobility** Dissociates into ions.  
**Other adverse effects** None known

### Section 13 Disposal considerations

**Waste disposal methods** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). Dispose of in accordance with local regulations.

**Contaminated Packaging** Dispose of in accordance with local regulations.

### Section 14 Transport information

**DOT** Not regulated

**IDG** Not regulated

**ICAO/IATA** Not regulated

**IMDG/IMO** Not regulated

### Section 15 Regulatory information

#### U.S. Federal Regulations

##### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

##### SARA 311/312 Hazard Categories

Acute Health Hazard	YES
Chronic Health Hazard	NO
Fire Hazard	NO
Sudden Release of Pressure Hazard	NO
Reactive Hazard	NO

##### Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**Product name** Mineral Buddies™ pH & Alk Up  
**Revision date** 10-10-16

### Section 15 Regulatory information (Continued)

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### **US State Regulations**

##### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

##### **U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated by state right-to-know regulations

#### **International Inventories**

COMPONENT	TSCA (United States)	DSL (Canada)	EINECS/ELI NCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Sodium Carbonate 497-19-8 (100)	X	X	X	X	X	X	X	X

#### **International Regulations**

**Mexico – Grade**

Moderate risk, Grade 2

**WHMIS Hazard Class**

D2B Toxic materials, Eye irritation

Class E: Corrosive to aluminum. Not corrosive to animal skin or carbon steel.

### Section 16 Other information

<b>NFPA</b>	<b>Health Hazard 2</b>	<b>Flammability 0</b>	<b>Stability 0</b>	<b>Special Hazards -</b>
<b>HMIS</b>	<b>Health Hazard 2</b>	<b>Flammability 0</b>	<b>Stability 0</b>	<b>Special Protection X</b>

**NFPA/HMIS Ratings Legend** Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

#### **DATE OF PREPARATION**

**5-15-15**

THE INFORMATION SUPPLIED ABOVE IS PRESENTED IN GOOD FAITH AND HAS BEEN DERIVED FROM SOURCES BELIEVED TO BE RELIABLE, HOWEVER, NO WARRANTY EXPRESSED OR IMPLIED IS EXTENDED REGARDING ITS ACCURACY OR THE RESULTS TO BE OBTAINED FROM ITS USE SINCE CONDITIONS OF USE ARE BEYOND OUR CONTROL. ALL RISKS ARE ASSUMED BY THE USER.



**Product name** **Mineral Buddies™ pH & Alk Down**  
**Revision date** **10-10-16**

### Section 1 Identification

**Product ID:** pH & Alk Down  
**Synonyms:** Sodium bisulfate, anhydrous.  
Nitrate cake, GBS, Sodium hydrogen sulphate  
**Product Use:** **Lowers pH, Prevents Scaling**

**Supplier:** Oreg Corporation  
42306 Remington Ave.  
Temecula, CA 92590  
951-296-5076

**Distributor:** Carefree Stuff  
5220 4<sup>th</sup> Street, Ste 2  
Irwindale, CA 91702  
626-337-0611

**Emergency Phone#** **CHEMTREC, U.S.: 1-800-424-9300**

### Section 2 Hazards identification

**OSHA/HCS status :** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture:** SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

**GHS label elements**  
**Hazard pictograms:**



**Signal word :** Danger  
**Hazard statements :** H318 - Causes serious eye damage.

#### **Precautionary statements**

**Prevention :** P280 - Wear eye or face protection.  
P264 - Wash hands thoroughly after handling.  
**Response :** P305 + P351 + P338 + P310 - IF 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 physician.  
**Storage :** Not applicable.  
**Disposal :** Not applicable.  
**Hazards not otherwise Classified** : None known.

### Section 3 Composition / Information on ingredients

#### **United States - Mexico**

Name	%	CAS number
Sodium bisulfate	>90	7681-38-1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section

**Product name** Mineral Buddies™ pH & Alk Down  
**Revision date** 10-10-16

### Section 4 First - aid measures

#### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. If redness or irritation persists, get prompt 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.
- 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.
- 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.

#### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Inhalation of dust may irritate nose, throat and/or lungs.
- Skin contact** : Prolonged exposure may cause skin irritation.
- Ingestion** : Small amounts (tablespoonful) swallowed are not likely to cause injury; however, swallowing large amounts may irritate or burn digestive tract.

#### Over-exposure signs/symptoms

- Eye contact** : **Adverse symptoms may include the following:**  
pain  
watering  
redness
- Inhalation** : **No known significant effects or critical hazards.**
- Skin contact** : **Adverse symptoms may include the following:**  
pain or irritation  
redness  
blistering may occur if repeated exposure
- Ingestion** : **Adverse symptoms may include the following:**  
stomach pains

#### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

**Product name** Mineral Buddies™ pH & Alk Down  
**Revision date** 10-10-16

### Section 5 Fire - fighting measures

- Extinguishing media**  
**Suitable Extinguishing Media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable Extinguishing Media** : None known.
- Specific hazards arising from the chemical** : No specific fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
Sulfur oxides
- Special protective actions for fire-fighters** : No special measures are required.
- 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, protective equipment and emergency procedures

- For non-emergency personnel** : Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".
- 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 and materials for containment and cleaning up

- Small Spill** : Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large Spill** : 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. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

**Product name** Mineral Buddies™ pH & Alk Down  
**Revision date** 10-10-16

### Section 7 Handling and Storage

#### Precautions for safe handling

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

**Advice on general Occupational hygiene** :Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

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

#### Control parameters

##### Occupational exposure limits

None

Mexico

None

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

#### Individual protection measures

**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.

**Eye/face protection** : Safety eyewear should be used when there is a likelihood of exposure. Recommended: Safety glasses with side shields.

#### Skin protection

**Hand protection** : Use gloves appropriate for work or task being performed. Recommended: Rubber gloves.

**Body protection** : Cotton-blend coveralls

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : In dusty atmospheres (>10 mg/m<sup>3</sup>), use a NIOSH-approved dust respirator.

**Product name** Mineral Buddies™ pH & Alk Down  
**Revision date** 10-10-16

### Section 9 Physical and chemical properties

#### Appearance

**Physical state** : Dry (Anhydrous) crystalline solid spherical shape beads.  
**Color** : Off-white.  
**Odor** : Fresh to pungent.  
**Odor Threshold** : Not available  
**pH** : <1 [Conc. (% w/w): 5%]  
**Boiling point** : Not available.  
**Flash point** : Not available.  
**Evaporation rate** : Not available.  
**Flammability (solid, gas)** : Not available.  
**Lower and upper explosive (flammable) limits** : Not available.  
**Vapor pressure** : Not available.  
**Vapor density** : Not available.  
**Relative density** : 1.28  
**Solubility** : Partially soluble in the following materials: cold water and hot water.  
**Viscosity** : Not available.  
**Volatility** : Not available.

### Section 10 Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.  
**Chemical stability** : The product is stable.  
**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.  
**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.

### Section 11 Toxicological information

#### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Sodium bisulfate	LD50 Oral	Rat	2800 mg/kg	-

**Irritation/Corrosion -** There is no data available  
**Sensitization -** There is no data available  
**Carcinogenicity -** There is no data available

**Product name** Mineral Buddies™ pH & Alk Down  
**Revision date** 10-10-16

### Section 11 Toxicological information (Continued)

Specific target organ toxicity (single exposure) - There is no data available

Specific target organ toxicity (repeated exposure)- There is no data available

Aspiration hazard- There is no data available

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

**Eye contact** : Causes serious eye damage.

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

**Skin contact** : Prolonged exposure may cause skin irritation.

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

#### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur if repeated exposure

**Ingestion** : Adverse symptoms may include the following:  
stomach pains

#### Delayed and immediate effects and also chronic effects from short and long term exposure

##### Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

##### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards

##### Potential chronic health effects

**General** : No known significant effects or critical hazards.

**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.

**Product name** Mineral Buddies™ pH & Alk Down  
**Revision date** 10-10-16

### Section 11 Toxicological information (Continued)

#### Acute toxicity estimates

Route	ATE value
Oral	3080.3 mg/kg

### Section 12 Ecological information

**Toxicity** : There is no data available.  
**Persistence and degradability** : There is no data available.  
**Bioaccumulative potential** : There is no data available.

#### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : There is no data available.

**Other adverse 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.

### Section 13 Disposal considerations

**Disposal Methods** : 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.

### Section 14 Transport information

	DOT/MEX Classification	IMDG	IATA
UN number	Not regulated	Not regulated	Not regulated
UN proper Shipping name	-	-	-
Transport Hazard class	-	-	-
Packing group	-	-	-
Environmental hazards	No	No	No
Additional information	-	-	-

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

### Section 15 Regulatory information

**U.S. Federal regulations** : **TSCA 8 (a) CDR Exempt Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** All components are listed or exempted.

# mineral buddies

## SAFETY DATA SHEET

Specifically Designed for Mineral Treated Spas

**Product name** Mineral Buddies™ pH & Alk Down

**Revision date** 10-10-16

**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

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ:** :Not applicable

### SARA 311/312

**Classification** : Immediate (acute) health hazard

#### Composition/information on ingredients

Name	%	Fire Hazard	Sudden Release of Pressure	Reactive	Immediate (acute) Health hazard	Delayed (chronic) Health hazard
Sodium Bisulfate	>90	No.	No.	No.	Yes.	No.

### 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.

### Mexico

**Classification** : Health 1 Flammability 0 Reactivity 0

## Section 16 Other information

### DATE OF PREPARATION

5-15-2015

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**Product name** **Mineral Buddies™ Calcium Up**  
**Revision date** **10-10-16**

### Section 1 Identification

**Product ID:** Calcium Up

**Chemical Name:** Calcium Chloride  
**Synonyms:** Calcium Chloride Flake  
**CAS Number:** 10043-52-4

**Product Use:** Raises Calcium, Prevents Corrosion

**Supplier:** Oreq Corporation  
42306 Remington Ave.  
Temecula, CA 92590  
951-296-5076

**Distributor:** Carefree Stuff  
5220 4<sup>th</sup> Street, Ste 2  
Irwindale, CA 91702  
626-337-0611

**Emergency Phone# –** CHEMTREC: 800-424-9300

### Section 2 Hazards identification

**GHS CLASSIFICATION:** Acute Oral Toxicity Category 4  
Serious Eye Damage/Eye Irritation Category 2

**GHS SIGNAL WORD:** **WARNING**

**HAZARD PICTOGRAMS:**



**Appearance:** White **Physical State:** Flake **Odor:** Odorless

**Hazard Statement(s)**

H302 Harmful if swallowed  
H316 Causes mild skin irritation  
H319 Causes serious eye irritation

**Precautionary Statement(s):**

P264: Wash ... thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337 + P313 - If eye irritation persists: Get medical advice/attention.  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
P330 - Rinse mouth  
P280 - Wear protective gloves/protective clothing/eye protection/face protection

**Product name** Mineral Buddies™ Calcium Up

**Revision date** 10-10-16

### Section 3 Composition / Information on ingredients

Chemical Name	CAS-No	Weight %
Calcium Chloride	10043-52-4	74-100
Water	7732-18-5	0-26
Sodium Chloride	7647-14-5	< 3
Potassium Chloride	7447-40-7	< 3
Magnesium Chloride	7786-30-3	< 0.5

### Section 4 First - aid measures

**Eye Contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Obtain medical attention if irritation persists.

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

**Inhalation:** Move to fresh air. Get medical attention immediately if symptoms occur.

**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell Rinse mouth.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 Fire - fighting measures

#### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable Extinguishing Media

None

#### Specific Hazards Arising from the Chemical

Avoid generating dust, under certain conditions may cause respiratory irritation. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

#### Explosion Data

Sensitivity to Mechanical Impact None  
Sensitivity to Static Discharge None

#### Protective Equipment and Precautions 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:**

Avoid contact with the skin and the eyes. Use personal protective equipment. Avoid dust formation.

#### **Environmental Precautions:**

Prevent large spills from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12,

**Product name** Mineral Buddies™ Calcium Up

**Revision date** 10-10-16

### Section 6 Accidental release measures (Continued)

Ecological Information.

#### Methods and Materials for Containment and Cleaning Up:

Small and large spills: Contain spilled material if possible. Collect in suitable and properly labeled containers. Flush residue with plenty of water. See Section 13, Disposal considerations, for additional information.

### Section 7 Handling and storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale. Wash clothing before reuse. Always use cool water when dissolving Calcium Chloride. Heat evolved is significant.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture. Store below melting point.

**Incompatible Products:** Zinc, Bromine tri-fluoride, Methyl vinyl ether

### Section 8 Exposure controls / personal protection

#### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Calcium Chloride 10043-52-4	ACGIH - (TLV-TWA) Guidelne for nuisance particulate (inhalable particulate): 10 mg/m3	OSHA (PEL-TWA) - Z-3 Mineral Dusts, Inert or Nuisance dusts, (respirable fraction): 5 mg/m3	-

**Engineering Measures** Provide local exhaust ventilations system. When there is a potential for exposure, an emergency eyewash and safety shower should be provided within the immediate work area.

#### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Wear safety glasses with non-flexible side shields or chemical goggles

**Skin and Body Protection** **Hands and Feet:** Wear appropriate protective non-leather protective gloves and boots. Chemical protective gloves and boots such as PVC, Neoprene, or Heavy Nitrile are recommended. Leather products do not offer adequate protection and will dehydrate with resultant shrinkage and possible destruction.  
**Body:** Wear appropriate protective, impervious clothing.

**Respiratory Protection** A respirator is not indicated under normal operating conditions. Use of a NIOSH - approved respirator (N95 or greater) should be based on the presence of nuisance dusts.

**Hygiene Measures** When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.

**Product name** Mineral Buddies™ Calcium Up

**Revision date** 10-10-16

### Section 9 Physical and chemical properties

**Physical State:** Flake

**Appearance:** white

**Odor:** odorless

**pH:** 8-10 100 g/l aq.sol.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** > 1600 deg C @ 760.0

**Freezing/Melting Point:** 782 deg C

**Decomposition Temperature:** Not available.

**Solubility:** 740 g/l water (20°C)

**Specific Gravity/Density:** Not available.

**Molecular Formula:** CaCl<sub>2</sub>

**Molecular Weight:** 110.99

### Section 10 Stability and reactivity

**Chemical Stability:** Stable.

**Conditions to Avoid:** Dust generation, excess heat, exposure to moist air or water.

**Incompatibilities with Other Materials:** Zinc, Bromine tri-fluoride, Methyl vinyl ether

**Hazardous Decomposition Products:** Hydrogen chloride, calcium oxide.

**Hazardous Polymerization:** Will not occur.

### Section 11 Toxicological information

#### Information on likely routes of exposure

**Inhalation** May cause irritation of respiratory tract.

**Eye Contact** Irritating to eyes.

**Skin Contact** May cause irritation.

**Ingestion** Harmful if swallowed.

#### Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium Chloride	= 1000 mg/kg ( Rat )	= 2630 mg/kg ( Rat )	-
Potassium Chloride	= 2600 mg/kg ( Rat )	-	-
Sodium chloride	= 3 g/kg ( Rat )	> 10 g/kg ( Rabbit )	> 42 g/m <sup>3</sup> ( Rat ) 1 h

#### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** May cause irritation to the respiratory system.

#### Delayed and immediate effects and also chronic effects from short and long term exposure

**Eye damage/irritation** Irritating to eyes.

**Sensitization** No information available.

**Mutagenic Effects** No information available.

**Carcinogenicity** Contains no ingredients above reportable quantities listed as a carcinogen.

**Reproductive Toxicity** No information available.

**STOT - single exposure** No information available.

**Product name** Mineral Buddies™ Calcium Up

**Revision date** 10-10-16

### Section 11 Toxicological information (Continued)

**STOT - repeated exposure** No information available.  
**Chronic Toxicity** Avoid repeated exposure.  
**Aspiration Hazard** No information available.

#### Numerical measures of toxicity - Product

**Acute Toxicity** 0% of the mixture consists of ingredient(s) of unknown toxicity.

*The following values are calculated based on chapter 3.1 of the GHS document:*

**LD50 Oral** 979 mg/kg; Acute toxicity estimate

**LD50 Dermal** 2630 mg/kg; Acute toxicity estimate

### Section 12 Ecological information

#### Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Calcium Chloride 10043-52-4		LC50 96 h: = 10650 mg/L static (Lepomis macrochirus)		LC50 48 h: = 2400 mg/L (Daphnia magna)
Potassium Chloride 7447-40-7	EC50 72 h: = 2500 mg/L (Desmodesmus subspicatus)	LC50 96 h: 750-1020 mg/L static (Pimephales promelas) LC50 96 h: = 1060 mg/L static (Lepomis macrochirus)		EC50 48 h: = 825 mg/L (Daphnia magna) EC50 48 h: = 83 mg/L Static (Daphnia magna)
Sodium chloride 7647-14-5		LC50 96 h: 5560 - 6080 mg/L flow-through (Lepomis macrochirus) LC50 96 h: = 12946 mg/L static (Lepomis macrochirus) LC50 96 h: 6020 - 7070 mg/L static (Pimephales promelas) LC50 96 h: = 7050 mg/L semi-static (Pimephales promelas) LC50 96 h: 6420 - 6700 mg/L static (Pimephales promelas) LC50 96 h: 4747 - 7824 mg/L flow-through (Oncorhynchus mykiss)		EC50 48 h: = 1000 mg/L (Daphnia magna) EC50 48 h: 340.7 - 469.2 mg/L Static (Daphnia magna)

### Section 13 Disposal considerations

**Waste Disposal Methods** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging** Do not re-use empty containers.

### Section 14 Transport information

**US DOT –** Not Regulated  
**TDG –** Not Regulated  
**MEX –** Not Regulated

**Product name** Mineral Buddies™ Calcium Up

**Revision date** 10-10-16

### Section 15 Regulatory information

#### International Inventories

TSCA Complies  
DSL Complies

#### Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

#### U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

Acute Health Hazard Yes  
Chronic Health Hazard No  
Fire Hazard No  
Sudden Release of Pressure Hazard No  
Reactive Hazard No

#### Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### U.S. State Regulations

##### California Proposition 65

This product does not contain any Proposition 65 chemicals.

##### U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations.

##### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

### Section 16 Other information

#### HMS Rating

Health hazard: 1  
Flammability: 0  
Physical Hazard 1

#### NEPA Rating

Health hazard: 1  
Fire Hazard: 0  
Reactivity Hazard: 1

#### **DATE OF PREPARATION**

**10-10-16**

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