

SAFETY DATA SHEET

Date Issued : 07/24/2009
MSDS No : Blue Wave Halt 50
Date Revised : 06/27/2012
Revision No : 3

Blue Wave Halt 50

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Blue Wave Halt 50
GENERAL USE: Algacide

MANUFACTURER

Lonza, Inc.
90 Boroline Road
Allendale, NJ 07401

DISTRIBUTOR

Blue Wave Products
1745 Wallace Ave # B
St Charles, IL 60174
Product Stewardship: (800) 759-0977

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: CORROSIVE. FLAMMABLE. Harmful in contact with skin. Causes burns. Irritating to eyes.

POTENTIAL HEALTH EFFECTS

EYES: Causes eye irritation.

SKIN: Causes skin burns.

INGESTION: Harmful if swallowed.

INHALATION: May be harmful if inhaled.

ROUTES OF ENTRY: Eyes, Skin, Inhalation, Ingestion

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Name | Wt.% | CAS | EINECS |
|------------------------------------|------|-----------|-----------|
| Didecyl Dimethyl Ammonium Chloride | 50 | 7173-51-5 | -- |
| Ethanol | 10 | 64-17-5 | 200-578-6 |
| Water | 40 | 7732-18-5 | 231-791-2 |

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN: Immediately wash skin with plenty of soap and water for 15 minutes while removing contaminated clothing and shoes. Get immediate medical attention. Launder clothing before re-use and discard shoes that cannot be thoroughly cleaned.

INGESTION: Call a physician immediately. Clean mouth with water. Drink plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

INHALATION: Move to fresh air. Call a physician immediately. If breathing is irregular or stopped, administer artificial respiration.

SAFETY DATA SHEET

Date Issued : 07/24/2009
 MSDS No : Blue Wave Halt 50
 Date Revised : 06/27/2012
 Revision No : 3

Blue Wave Halt 50

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: (109°F) SETA Flash Tester CC

FLAMMABLE LIMITS: Not known to Not known

AUTOIGNITION TEMPERATURE: Not Known

EXTINGUISHING MEDIA: Dry powder, water spray, foam.

HAZARDOUS COMBUSTION PRODUCTS: Heating or fire can release toxic gas.

FIRE FIGHTING PROCEDURES: Use water to cool containers exposed to fire.

FIRE FIGHTING EQUIPMENT: Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Avoid runoff to waterways and sewers.

GENERAL PROCEDURES: Contain and/or absorb spill with clay, soil or commercially available absorbents. Block any potential routes to water systems (e.g., sewers, streams, lakes, etc.)

SPECIAL PROTECTIVE EQUIPMENT: Use respirator when performing operations involving potential exposure to vapor or mist.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid contact with eyes, skin, and clothing. Provide sufficient air exchange and/or exhaust in work rooms.

HANDLING: Highly flammable. Keep away from sources of ignition. No smoking. Take precautions against static discharges.

STORAGE: Store containers in compliance with the most recent NFPA code (NFPA 30). Ground all containers prior to pouring. Keep containers closed when not in use. Do not contaminate drinking water, food or feed by storage or disposal.

STORAGE TEMPERATURE: Less than 140.0 degrees F (less than 60.0 C)

COMMENTS: Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

| OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200) | | | | | | | |
|---|------|-----------------|------------------------|-----------|------------------------|-------------|-------------------|
| | | EXPOSURE LIMITS | | | | | |
| | | OSHA PEL | | ACGIH TLV | | SupplierOEL | |
| Chemical Name | | ppm | mg/m ³ | ppm | mg/m ³ | ppm | mg/m ³ |
| Ethanol | TWA | 1000 ppm | 1900 mg/m ³ | 1000 ppm | 1884 mg/m ³ | NL | NL |
| | STEL | ppm | mg/m ³ | ppm | mg/m ³ | NL | NL |

SAFETY DATA SHEET

Date Issued : 07/24/2009
MSDS No : Blue Wave Halt 50
Date Revised : 06/27/2012
Revision No : 3

Blue Wave Halt 50

ENGINEERING CONTROLS: In processes where mists or vapors may be generated, proper ventilation must be provided in accordance with good ventilation practices.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear tightly fitting safety goggles and face shield.

SKIN: Nitrile rubber gloves with break through time greater than 480 min

RESPIRATORY: In misty conditions, use a respirator with approved filter.

PROTECTIVE CLOTHING: Rubber or plastic apron and boots.

WORK HYGIENIC PRACTICES: Avoid contact with skin, eyes and clothing. Wash after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Ethanol-like

pH: 6.5 to 9.0 10% active solution

VAPOR PRESSURE: Not Known

VAPOR DENSITY: 0.93 g/cm³

Notes: at 77 degrees F (25 C)

BOILING POINT: Not Known

FREEZING POINT: -20°C

FLASHPOINT AND METHOD: (109°F) SETA Flash Tester CC

SOLUBILITY IN WATER: Soluble

EVAPORATION RATE: Not Known

VISCOSITY #1: < 100 mPa. s. at 25°C (77°F)

10. STABILITY AND REACTIVITY

STABILITY: Stable.

POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Nitrogen oxides (NOX); hydrochloric acid; carbon oxides.

INCOMPATIBLE MATERIALS: Strong oxidizing or reducing agents.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD₅₀: 4300 mg/kg (rabbit)

ORAL LD₅₀: 450 mg/kg (rat)

EYE EFFECTS: Severely irritating (rabbit).

SKIN EFFECTS: Corrosive (rabbit) 4 hr, Method:OECD Test Guideline 404

SENSITIZATION: (guinea pig) Not a sensitizer.

SAFETY DATA SHEET

Date Issued : 07/24/2009
 MSDS No : Blue Wave Halt 50
 Date Revised : 06/27/2012
 Revision No : 3

Blue Wave Halt 50

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY (ACUTE)

48-HOUR EC₅₀: .94 mg/L (Daphnia Magna)

CHEMICAL FATE INFORMATION: Biodegradability:

OECD Confirmatory Test: 91%; exposure time 24-70 days; Method OECD 303A

Modified Sturm Test: Concentration 10 mg/l; exposure time 28 days; Readily biodegradeable 72%; Method: OECD 301B

Die-Away Test: concentration: 0.06 mg/l; Exposure time 28 days; 93.3%

COMMENTS: Data is based on Didecyldimethylammonium chloride (CAS No. 7173-51-5)

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of in accordance with applicable local, state, and federal regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Disinfectants, Liquid, Corrosive, N.O.S (Didecyl dimethylammonium chloride)

PRIMARY HAZARD CLASS/DIVISION: 8

UN/NA NUMBER: 1903

PACKING GROUP: II

OTHER SHIPPING INFORMATION: DOT exception 173.154 - this product qualifies as a Limited Quantity when inner packaging does not exceed 0.3 gallons.

15. REGULATORY INFORMATION

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION



Corrosive

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: This act requires reporting under the Community Right-To-Know provisions due to the inclusion of the following components:

N,N-Didecyl-N,N-dimethylammonium chloride - (CAS 7273-51-5) Hazard Category A

SAFETY DATA SHEET

Date Issued : 07/24/2009
MSDS No : Blue Wave Halt 50
Date Revised : 06/27/2012
Revision No : 3

Blue Wave Halt 50

Ethanol (CAS 64-17-5) Hazard Category F

FIRE: Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** No

313 REPORTABLE INGREDIENTS: None.

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: None known.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA RQ: 1000 lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

| Chemical Name | CAS |
|------------------------------------|-----------|
| Didecyl Dimethyl Ammonium Chloride | 7173-51-5 |
| Water | 7732-18-5 |

TSCA STATUS: All ingredients in this mixture are in compliance with TSCA.

STATES WITH SPECIAL REQUIREMENTS

| Chemical Name | Requirements |
|---------------|--|
| Ethanol | Ethyl Alcohol: New Jersey Workplace Hazard New Jersey Special Hazard Pennsylvania Workplace Hazard CA Proposition 65 Massachusetts Hazardous Substance New York City Hazardous Substance |

CALIFORNIA PROPOSITION 65: This product contains substances which are known to the State of California to cause cancer and/or birth effects or reproductive harm.

16. OTHER INFORMATION

REVISION SUMMARY: This MSDS replaces the 08/30/2011 MSDS. Revised: **Section 2:** CARCINOGENICITY, EMERGENCY OVERVIEW - IMMEDIATE CONCERNS POTENTIAL HEALTH EFFECTS (SKIN, INHALATION, INGESTION), ROUTES OF ENTRY. **Section 4:** EYES, INGESTION, INHALATION, NOTES TO PHYSICIAN. **Section 5:** EXPLOSION HAZARDS, EXTINGUISHING MEDIA, HAZARDOUS COMBUSTION PRODUCTS. **Section 6:** COMMENTS, GENERAL PROCEDURES, SPECIAL PROTECTIVE EQUIPMENT, WATER SPILL. **Section 7:** GENERAL PROCEDURES, HANDLING, STORAGE TEMPERATURE. **Section 8:** PERSONAL PROTECTIVE EQUIPMENT (EYES AND FACE, RESPIRATORY, PROTECTIVE CLOTHING), WORK HYGIENIC PRACTICES. **Section 9:** APPEARANCE, SPECIFIC GRAVITY, VAPOR DENSITY, VISCOSITY #1, (VOC). **Section 10:** HAZARDOUS DECOMPOSITION PRODUCTS. **Section 11:** ACUTE (ORAL LD₅₀ (rat)), EYE EFFECTS, MUTAGENICITY, REPRODUCTIVE EFFECTS, SKIN EFFECTS, CORROSIVITY. **Section 12:** CHEMICAL FATE INFORMATION, COMMENTS, AQUATIC TOXICITY (ACUTE) (96-HOUR LC₅₀, Notes). **Section 15:** CERCLA REGULATORY, CERCLA RQ, REPORTABLE SPILL QUANTITY, CALIFORNIA PROPOSITION 65.

SAFETY DATA SHEET

Date Issued : 07/24/2009

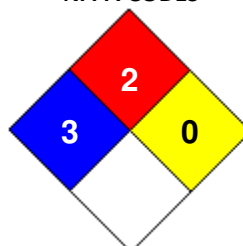
MSDS No : Blue Wave Halt 50

Date Revised : 06/27/2012

Revision No : 3

Blue Wave Halt 50

NFPA CODES



MANUFACTURER DISCLAIMER: Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

MATERIAL SAFETY DATA SHEET

Date Issued: 04/07/2011

MSDS No: BW Super Rust & Scale

Blue Wave Super Rust & Scale

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Blue Wave Super Rust & Scale

GENERAL USE: Metal Control for swimming pools.

DISTRIBUTOR

Blue Wave Products
1745 Wallace Ave # B
St Charles, IL 60174

Product Stewardship: (800) 579-0977

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: Causes eye, skin and digestive tract burns. Mist may cause respiratory tract burns.

POTENTIAL HEALTH EFFECTS

EYES: Corrosive. Causes eye burns and permanent tissue damage.

SKIN: Corrosive. Causes permanent skin damage.

INGESTION: Corrosive to mouth, esophagus and stomach.

INHALATION: Mist may be severely irritating to nose, throat and lungs depending upon concentration and duration of exposure.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

CARCINOGENICITY: Not listed by NTP, IARC or OSHA.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Name | CAS | EINECS |
|--|-----------|-----------|
| Phosphonic Acid, (1-hydroxyethylidene)bis- | 2809-21-4 | 220-552-8 |

COMMENTS: Proprietary blend. Ingredients in this section have been determined to be hazardous as defined by 29CFR 1910.1200.

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN: Immediately wash with large amounts of water; use soap, if available. Remove contaminated clothing, including shoes, after washing has begun. Get immediate medical attention.

INGESTION: Do not induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. Keep warm and quiet. Get prompt medical attention. Do not attempt to give anything to an unconscious person.

If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty.

MATERIAL SAFETY DATA SHEET

Date Issued: 04/07/2011

MSDS No: BW Super Rust & Scale

Blue Wave Super Rust & Scale

INHALATION: Immediately move the victim from exposure and get immediate medical attention. If breathing is difficult, give oxygen. If breathing stops, give artificial respiration.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: > 100°C (212°F) TAG CC

FLAMMABLE LIMITS: Non-flammable.

EXTINGUISHING MEDIA: Use extinguishing media appropriate for surrounding fire.

FIRE FIGHTING PROCEDURES: Material will not burn. Containers can build up pressure if exposed to heat (fire). Use water spray to cool fire-exposed surfaces and to protect personnel.

FIRE FIGHTING EQUIPMENT: Firefighters should wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Contain spilled material with sand or earth. Recover by pumping or with suitable absorbent.

LARGE SPILL: Prevent additional discharge of material if able to do so without hazard. Warn downwind areas of corrosive release hazard. Advise authorities.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Prevent spill rinsate from contamination of storm drains, sewers, soil or groundwater.

GENERAL PROCEDURES: Material is water soluble/dispersible and may not be recoverable.

7. HANDLING AND STORAGE

HANDLING: Keep container closed. Both open and handle container with care. Store in a cool, well ventilated place away from incompatible materials.

Do not pressurize, cut or heat container. Empty product containers may contain product residue. Do not reuse empty containers.

STORAGE: Corrosive to most metals, including carbon steel, aluminum/aluminum alloys and copper /copper alloys.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Local exhaust.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Chemical splash goggles and face shield.

SKIN: Chemical-resistant gloves.

RESPIRATORY: Where overexposure by inhalation may occur; or other means of exposure reduction are not adequate, approved respirators may be necessary.

WORK HYGIENIC PRACTICES: Provide safety shower and eyewash station in the work area.

MATERIAL SAFETY DATA SHEET

Date Issued: 04/07/2011

MSDS No: BW Super Rust & Scale

Blue Wave Super Rust & Scale

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid**ODOR:** Faint.**pH:** < 1.1 to 1.6**BOILING POINT:** > 100°C**FREEZING POINT:** < 0°C**FLASHPOINT AND METHOD:** > 100°C (212°F) TAG CC**SOLUBILITY IN WATER:** Soluble**SPECIFIC GRAVITY:** 1.056

10. STABILITY AND REACTIVITY

STABLE: Yes**HAZARDOUS POLYMERIZATION:** No**POLYMERIZATION:** Will not occur.**CONDITIONS TO AVOID:** Contact with common metals might produce flammable hydrogen gas.**HAZARDOUS DECOMPOSITION PRODUCTS:** Oxides of phosphorous and carbon; acids of phosphorous, phosphine, oxides of carbon, oxides of nitrogen.**INCOMPATIBLE MATERIALS:** Strong oxidizers and strong alkalis.

11. TOXICOLOGICAL INFORMATION

ACUTE

ORAL LD₅₀: 1800 mg/kg (mice)**NOTES:** Listed amounts are for neat product.**TARGET ORGANS:** Neat product may cause damage to the following organs: blood, gastrointestinal tract, upper respiratory tract, skin, eyes, bones.

12. ECOLOGICAL INFORMATION

GENERAL COMMENTS: Listed information is for neat product.**COMMENTS:** LC50 = 527 mg/l 48 hours Daphnia magna

LC50 = 368 mg/l 96 hours Rainbow Trout

LC50 = 868 mg/l 96 hours Bluegill sunfish

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of in accordance with applicable local, state, and federal regulations.

MATERIAL SAFETY DATA SHEET

Date Issued: 04/07/2011

MSDS No: BW Super Rust & Scale

Blue Wave Super Rust & Scale

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Corrosive Liquid, Acidic, Organic, N.O.S. (Phosphonic acid)

PRIMARY HAZARD CLASS/DIVISION: 8

UN/NA NUMBER: UN 3265

PACKING GROUP: III

REPORTABLE QUANTITY (RQ) UNDER CERCLA: None

OTHER SHIPPING INFORMATION: DOT exception 173.154 - this product qualifies as a Limited Quantity when inner packaging does not exceed 1 gallons.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Hazard Categories: Health: Immediate (Acute) Health Hazard

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: No components of this product are present above the de minimus levels.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All components are listed on the TSCA Inventory.

RCRA STATUS: When disposed of, this product may be regulated as a RCRA Hazardous Waste with the characteristic of corrosivity due the pH of the neat material.

16. OTHER INFORMATION

REVISION SUMMARY: New MSDS

HMIS RATING

| | | |
|-----------------------------|--------------------------|----------|
| HEALTH: | <input type="checkbox"/> | 3 |
| FLAMMABILITY: | <input type="checkbox"/> | 0 |
| PHYSICAL HAZARD: | <input type="checkbox"/> | 1 |
| PERSONAL PROTECTION: | <input type="checkbox"/> | |

MANUFACTURER DISCLAIMER: Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

MATERIAL SAFETY DATA SHEET

Date Issued: 07/01/2008
MSDS No: Blue Wave Blitz Oxidizing Shock
Date Revised: 08/30/2011
Revision No: 6

Blue Wave Blitz Oxidizing Shock

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Blue Wave Blitz Oxidizing Shock
GENERAL USE: Oxidizer
PRODUCT DESCRIPTION: Potassium Monopersulfate Compound (Peroxygen Salt)

DISTRIBUTOR

Blue Wave Products
1745 Wallace Ave # B
St Charles, IL 60174
Product Stewardship: (800) 759-0977

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: White granular product

IMMEDIATE CONCERNS: This product is a skin and eye corrosive, and a nose and throat irritant. May cause allergic skin reactions in sensitive individuals. Ingestion may cause inflammation and damage to the lining of the stomach, resulting in bleeding.

POTENTIAL HEALTH EFFECTS

EYES: May cause eye corrosion or ulceration. Severe eye damage may result if not immediately treated.

SKIN: Corrosive to skin. Skin contact with aqueous solutions or the dry powder upon contact with moisture or perspiration may cause skin burns or ulceration. Temporary body hair loss may occur in contacted areas. Skin contact with the product may cause allergic skin reactions in sensitive individuals.

INGESTION: May cause gastritis, possibly progressing to necrosis or hemorrhage.

INHALATION: May cause nose bleeds and irritation of the upper respiratory passages with coughing and discomfort.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

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

MEDICAL CONDITIONS AGGRAVATED: Individuals with pre-existing conditions of the skin or gastrointestinal tract may have increased susceptibility to the toxicity of excessive exposures.

3. COMPOSITION / INFORMATION ON INGREDIENTS

MATERIAL SAFETY DATA SHEET

Date Issued: 07/01/2008
MSDS No: Blue Wave Blitz Oxidizing Shock
Date Revised: 08/30/2011
Revision No: 6

Blue Wave Blitz Oxidizing Shock

| Chemical Name | Wt.% | CAS | EINECS |
|-----------------------------|------|------------|-----------|
| Magnesium Carbonate | 2 | 546-93-0 | 208-915-9 |
| Potassium Bisulfate | 23 | 7646-93-7 | 231-594-1 |
| Potassium Peroxydisulfate | 3 | 7727-21-1 | 231-781-8 |
| Potassium Peroxymonosulfate | 43 | 10058-23-8 | 233-187-7 |
| Potassium Sulfate | 29 | 7778-80-5 | 231-915-5 |

4. FIRST AID MEASURES

EYES: Hold eyelids apart and immediately flush with plenty of water for at least 15 minutes. Call a physician immediately.

SKIN: Immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reuse.

INGESTION: DO NOT INDUCE VOMITING. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: Will not burn.

FLAMMABLE LIMITS: 0 to 0

EXTINGUISHING MEDIA: Water. Do not use carbon dioxide or other gas-filled fire extinguishers. They will have no effect on decomposing persulfates.

EXPLOSION HAZARDS: Improper storage of large masses of this product can trap heat and lead to ignition of combustibles. Grinding or intensive mixing may cause decomposition with liberation of heat and oxygen; ignition of oxidizing material, if present, may occur.

FIRE FIGHTING PROCEDURES: Will release oxygen when heated, intensifying a fire. Acidic mist may be present. Self contained breathing apparatus should be used.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Sweep up thoroughly. Flush area with low pressure water.

7. HANDLING AND STORAGE

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

STORAGE: Store in a cool, dry, well-ventilated area away from heat sources.

LOADING TEMPERATURE: Replace the lid on plastic pails when they are not in use to prevent contamination and extend

MATERIAL SAFETY DATA SHEET

Date Issued: 07/01/2008
MSDS No: Blue Wave Blitz Oxidizing Shock
Date Revised: 08/30/2011
Revision No: 6

Blue Wave Blitz Oxidizing Shock

shelf life.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

| OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200) | | | | | |
|---|-----|-----------------|-------------------|-----------|-------------------|
| | | EXPOSURE LIMITS | | | |
| | | OSHA PEL | | ACGIH TLV | |
| Chemical Name | | ppm | mg/m ³ | ppm | mg/m ³ |
| Magnesium Carbonate | TWA | | 15T, 5 | NIC | (10) |
| Potassium Peroxydisulfate | TWA | | | | 0.1 |

ENGINEERING CONTROLS: Local exhaust.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields.

SKIN: Where there is potential for skin contact, wear impervious gloves, apron, pants and jacket.

RESPIRATORY: A NIOSH-approved air purifying respirator with an appropriate particulate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential of an uncontrolled release, if exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

COMMENTS: NOTE: EXPOSURE LIMIT OF MONPERSULFATE COMPOUND

PEL = Particulates (Not Otherwise Regulated) 15 mg/m³, 8 Hr. TWA, total dust

TLV = None established.

AEL (Manufacturer's recommended exposure limit) Oxone Monopersulfate Compound - 1 mg/m³; Total Dust, 8 & 12 hr TWA.
 Potassium Sulfate - 10 mg/m³, 8 hr. TWA.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid

ODOR: Mild chlorine.

APPEARANCE: White granular.

pH: 2.3 (1% solution)

VAPOR PRESSURE: None

VAPOR DENSITY: Not volatile.

BOILING POINT: @ 760 mm Hg - decomposes

MELTING POINT: Decomposes

FLASHPOINT AND METHOD: Will not burn.

MATERIAL SAFETY DATA SHEET

Date Issued: 07/01/2008
MSDS No: Blue Wave Blitz Oxidizing Shock
Date Revised: 08/30/2011
Revision No: 6

Blue Wave Blitz Oxidizing Shock

EVAPORATION RATE: Not volatile.
SPECIFIC GRAVITY: 1.000 to 1.400
(VOC): 100.000

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: No

STABILITY: Stable when handled and stored as indicated.

CONDITIONS TO AVOID: May be unstable at temperatures above 170 deg C (338 deg F). Avoid storage at temperatures above 52 deg C (125 deg F). Prevent ingress of humidity and moisture into container or package. Always close the lid.

POSSIBILITY OF HAZARDOUS REACTIONS: Decomposes when heated or dampened, releasing oxygen and heat of decomposition.

INCOMPATIBLE MATERIALS: The mixture of this product with compounds containing halides or active halogens (bromine, chlorine, iodine) can cause the release of the respective halogen gas, if moisture is present. Avoid these gases (bromine and chlorine) because they are very irritating to eyes and lungs even at low concentrations. Never mix this product with dry or concentrate bromine-containing chemicals such as bromates, bromides, or any concentrated bromine pool chemicals. Mixing this product with dry chlorine chemicals such as hypochlorites, sodium dichloroisocyanurate (dichlor), sodium trichloroisocyanurate (trichlor) or with sodium chloride (salt), may cause the release of chlorine gas.

Mixing with cyanides can cause release of hydrogen cyanide gas. Mixing with heavy metal salts such as those of cobalt, nickel, copper, or manganese can cause decomposition with release of oxygen and heat.

11. TOXICOLOGICAL INFORMATION

ACUTE

SKIN ABSORPTION: > 11000 mg/kg (rabbits)

ORAL LD₅₀: 200-2000 mg/kg (rat)

INHALATION LC₅₀: > 5 mg/L (4 hour)

Notes: In rats.

EYE EFFECTS: This product is a severe eye irritant in animals.

SKIN EFFECTS: This product is a severe skin irritant in animals, but not a skin sensitizer.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY (ACUTE)

96-HOUR LC₅₀: 53 mg/L (Rainbow Trout)

48-HOUR EC₅₀: 3.5 mg/L (Daphnia Magna)

13. DISPOSAL CONSIDERATIONS

MATERIAL SAFETY DATA SHEET

Date Issued: 07/01/2008
MSDS No: Blue Wave Blitz Oxidizing Shock
Date Revised: 08/30/2011
Revision No: 6

Blue Wave Blitz Oxidizing Shock

DISPOSAL METHOD: Dispose of in accordance with applicable local, state, and federal regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Corrosive Solid, Acidic, Inorganic, N.O.S. (monopersulfate compound)

PRIMARY HAZARD CLASS/DIVISION: 8

UN/NA NUMBER: UN 3260

PACKING GROUP: II

LABEL: Corrosive

OTHER SHIPPING INFORMATION: DOT exception 173.154 - this product qualifies as a Limited Quantity when inner packaging does not exceed 2.2 lbs and outer packaging does not exceed 66 lbs.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Not listed.

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** No

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Not listed.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

| Chemical Name | CAS |
|-----------------------------|------------|
| Magnesium Carbonate | 546-93-0 |
| Potassium Bisulfate | 7646-93-7 |
| Potassium Peroxydisulfate | 7727-21-1 |
| Potassium Peroxymonosulfate | 10058-23-8 |
| Potassium Sulfate | 7778-80-5 |

16. OTHER INFORMATION

REVISION SUMMARY: This MSDS replaces the 10/15/2008 MSDS. Revised: **Section 14: DOT (DEPARTMENT OF TRANSPORTATION) - LABEL.**

MATERIAL SAFETY DATA SHEET

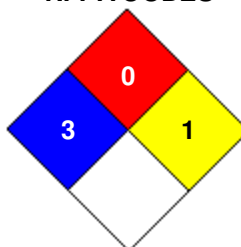
Date Issued: 07/01/2008
MSDS No: Blue Wave Blitz Oxidizing Shock
Date Revised: 08/30/2011
Revision No: 6

Blue Wave Blitz Oxidizing Shock

HMIS RATING

| | | |
|---------------------|--------------------------|---|
| HEALTH | <input type="checkbox"/> | 3 |
| FLAMMABILITY | <input type="checkbox"/> | 0 |
| PHYSICAL HAZARD | <input type="checkbox"/> | 1 |
| PERSONAL PROTECTION | <input type="checkbox"/> | |

NFPA CODES



MANUFACTURER DISCLAIMER: Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).