



SAFETY DATA SHEET

This SDS complies with REACH 1907/2006 and 2001/58/EC, GHS, OSHA 29CFR 1910.1200

Section 1: Chemical Product and Company Identification

PRODUCT NAME: **Shaw Pure Liquid Unreacted Pouch**
FORMULA: Preparation/Mixture
PRODUCT USE: Disinfectant/ Sanitizer/ Tuberculocide/ Virucide*/ Fungicide/
Algaecide/Slimicide/ Deodorizer
*See product label for detail.

MANUFACTURER'S NAME: SP Holdings LLC
ADDRESS: 5013 E. Washington Street, Suite 130
Phoenix, AZ 85034
Safety Data Sheet Competent Person: bernie.lorenz@prokure1.com

SUPPLIER'S NAME: Shaw Industries, Inc.
ADDRESS: 616 East Walnut Avenue
Dalton, GA 30721
TELEPHONE NUMBER: 800-441-7429

EMERGENCY TELEPHONE NUMBER: Chemtrec 24 hrs: 1-800-424-9300

DATE PREPARED: November 9, 2020

Section 2: Hazards Identification

GHS Hazard Class: Combustible dust
Acute toxicity, oral (Category 4), H302
Acute toxicity, dermal (Category 3), H311
Acute toxicity, inhalation (Category 3), H331
Skin corrosive (Category 1B), H314
Serious eye damage/eye irritation (Category 1), H318
Specific Target Organ Toxicity (repeated exposure), (Category 2), H373
Aquatic acute toxicity (Category 1), H400
Aquatic chronic toxicity (Category 3), H412

GHS Label elements, including precautionary statements:

Pictograms:



Signal word: Danger

Hazard Statement(s):
May form combustible dust concentrations in air.
H302 Harmful if swallowed.
H311+H331 Toxic in contact with skin or if inhaled.
H314 Causes severe skin burns and eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statement(s):

| | |
|----------------|---|
| P260 | Do not breathe dust, mist. |
| P264 | Wash hands, forearms, and exposed areas thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P273 | Avoid release to the environment. |
| P280 | Wear eye protection, face protection, protective clothing, protective gloves. |
| P301+P312 | If swallowed: Call a poison center or doctor if you feel unwell. |
| P301+P330+P331 | If swallowed: Rinse mouth, DO NOT induce vomiting. |
| P303+P361+P353 | If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P304+P340 | If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing. |
| P305+P351+P338 | If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a poison center or doctor. |
| P311 | Call a poison center or doctor. |
| P314 | Get medical advice if you feel unwell. |
| P321 | Specific treatment (see Section 4 on this SDS). |
| P330 | Rinse mouth. |
| P361 | Take off immediately all contaminated clothing. |
| P363 | Wash contaminated clothing before reuse. |
| P391 | Collect spillage. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations. |

Note: This product, in contact with air or moisture, evolves chlorine dioxide gas. The product is designed to generate chlorine dioxide solution when the pouch is placed in specified amount of water. The product design limits both the amount of gas generated and the rate of release. High amount of chlorine dioxide gas is fatal if inhaled and causes severe skin burns and eye damage.

Unknown Acute Toxicity (GHS-US): Not available

Section 3: Composition / Information on Ingredients

| Product Composition | CAS NO. | Approx. W% | Classification (GHS) |
|---------------------|-----------|------------|--|
| Citric Acid | 77-92-9 | 60-80 | Combustible Dust Serious eye damage/eye irritation, Cat. 2A, H319 |
| Sodium chlorite | 7758-19-2 | 15-35 | Oxidizing solids, Cat. 1, H271 Acute toxicity (oral), Cat. 3, H301 Acute toxicity (dermal), Cat. 2, H310 Acute toxicity (Inhalation: dust, mist), Cat. 2, H330 Skin corrosion/irritation, Cat. 1B, H314 Serious eye damage/eye irritation, Cat. 1, H318 Single target organ toxicity (repeated exposure), Cat. 2, H373 Hazardous to the aquatic environment – acute hazard, Cat. 1, H400 Hazardous to the aquatic environment – chronic hazard, Cat. 3, H412 |

Note: This product, in contact with air or moisture, evolves chlorine dioxide gas. The product is designed to generate chlorine dioxide solution when the pouch is placed in specified amount of water. The product design limits both the amount of gas generated and the rate of release. In the event of an emergency or if the pouch is accidentally wetted, the composition for the reacted chlorine dioxide is below. Please see the attached "Shaw Pure Liquid Ready to Use Solution" SDS for full hazards of the reacted pouch solution.

| Chemical | CAS NO. | Approx. W% | Classification (GHS) |
|------------------|------------|------------|--|
| Chlorine dioxide | 10049-04-4 | 100 | Oxidizing gas, Cat. 1, H270 Compressed gas, H280 Acute toxicity (Inhalation: gas), H330 Skin corrosion/irritation, Cat. 1B, H314 Hazardous to the aquatic environment – acute hazard, Cat. 1, H400 |

The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200]. A range of concentration as prescribed by Controlled Products Regulations has been used where necessary, due to varying composition.

Section 4: First Aid Measures

Description of First Aid Measures

| | |
|----------------------|--|
| General: | Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). |
| Inhalation: | Using proper respiratory protection, move the exposed person to fresh air at once. Encourage exposed person to cough, spit out, and blow nose to remove dust. Immediately call a poison center, physician, or emergency medical service. |
| Skin Contact: | Remove contaminated clothing. Immediately flush skin with plenty of water for at least 60 minutes. Get immediate medical advice/attention. Wash contaminated clothing before reuse. |
| Eye Contact: | Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention. |
| Ingestion: | Rinse mouth. Do NOT induce vomiting. Obtain medical attention. |

Most important symptoms and effects, both acute and delayed

| | |
|--|--|
| General: | Harmful if swallowed. Toxic in contact with skin. Toxic if inhaled. Causes severe skin burns and eye damage. Causes serious eye damage. May cause damage to organs through prolonged or repeated exposure. |
| Symptoms/Injuries After Inhalation: | Inhalation of this material can cause serious health effects in small amounts, leading to unconsciousness and death. May be corrosive to the respiratory tract. Dust may be harmful or cause irritation. |
| Symptoms/Injuries After Skin Contact: | This material is toxic in small amounts through skin contact, and can cause adverse health effects or death. This material may be absorbed through the skin and eyes. Causes severe irritation which will progress to chemical burns |
| Symptoms/Injuries After Eye Contact: | Causes serious eye damage. Causes permanent damage to the cornea, iris, or conjunctiva |
| Symptoms/Injuries After Ingestion: | This material is harmful orally and can cause adverse health effects or death in significant amounts. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Ingestion may cause methemoglobinemia. Initial manifestation of methemoglobinemia is cyanosis, characterized by navy lips, tongue and mucous membranes, with skin color being slate grey. Further manifestation is characterized by headache, weakness, dyspnea, dizziness, stupor, respiratory distress and death due to anoxia. Signs and symptoms of nitrite poisoning include methemoglobinemia, nausea, dizziness, increased heart rate, hypotension, fainting and, possibly shock |
| Chronic Symptoms: | May cause damage to organs (spleen) through prolonged or repeated exposure. |

Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

Section 5: Fire-fighting Measures

Extinguishing Media

| | |
|---------------------------------------|---|
| Suitable extinguishing media: | Use extinguishing media appropriate for surrounding fire. |
| Unsuitable extinguishing media | Do not use a heavy water stream. Use of heavy stream of water may spread fire |

Special hazards arising from the substance or mixture

| | |
|--------------------------|--|
| Fire Hazard: | Product is not flammable. Combustible Dust. |
| Explosion Hazard: | Dust explosion hazard in air. |
| Reactivity: | Sodium chlorite reacts with acids to form spontaneously explosive chlorine dioxide gas (ClO ₂). Ammonia with chlorites produces ammonium chlorite, which is a shock-sensitive compound. Finely divided metallic or organic substances, if mixed with chlorites, are highly flammable and may be ignited on friction. A mixture of organic matter and sodium chlorite can be extremely sensitive to heat, impact, or friction. Sodium chlorite reacts very violently with |

organic materials containing divalent sulfur or with free sulfur (may ignite).

Advice for Firefighter

Precautionary Measures Fire: Firefighter Instructions:

Exercise caution when fighting any chemical fire.

Use water spray or fog for cooling exposed containers. Remove containers from fire area if this can be done without risk. Do not breathe fumes from fires or vapors from decomposition.

Protective actions fire-fighters

Do not enter fire area without proper protective equipment, including respiratory protection

Hazard Combustion Products: Further information

Sodium oxides, chlorine, chlorine oxides, corrosive vapors, sulfur compounds.

Do not allow run-off from firefighting to enter drains or water courses. Risk of dust explosion.

Reference to Other Sections

Reference to Section 9 for flammability properties.

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Do not get in eyes, on skin, or on clothing. Do not breathe dust. Avoid generating dust. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Remove ignition sources.

For Non-Emergency Personnel

Protective Equipment:

Use appropriate personal protection equipment (PPE).

Emergency Procedures:

Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment:

Use appropriate personal protection equipment (PPE).

Emergency Procedures:

Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental Precautions

Prevent entry to storm drains and public waters. Avoid release to the environment. Collect spillage.

Methods and materials for containment and cleaning up

For containment:

Contain solid spills with appropriate barriers and prevent migration and entry into storm drains or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Avoid generation of dust during clean-up of spills. Ventilate area.

Methods for Cleaning Up:

Clean up spills immediately and dispose of waste safely. Cautiously neutralize spill if necessary. Use explosion proof vacuum during clean-up, with appropriate filter. Do not mix with other materials. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant. Use only non-sparking tools. Contact competent authorities after a spill

Reference to other Sections

See Section 8, Exposure controls and personal protection. See Section 13, Disposal Considerations.

Section 7: Handling and Storage

Precautions for safe handling:

Additional Hazards when Proceed:

May release corrosive vapors. Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.

Precautions for Safe Handling:

Do not get in eyes, on skin, or on clothing. Do not breathe dust. Use only outdoors or in a well-ventilated area. Keep away from heat, sparks, open flames, hot surfaces. No smoking. Handle empty containers with care because they may still present a hazard.

Hygiene Measures:

Handle in accordance with good industrial hygiene and safety procedures. Wash

hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Use only outdoors or in a well-ventilated area. Keep away from heat, sparks, open flames, hot surfaces. No smoking.

Conditions for safe storage, including any incompatibilities

Technical Measures: Comply with applicable regulations. Avoid creating or spreading dust. Use explosion-proof electrical, ventilating, lighting equipment. Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool and well-ventilated place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up. Store in original container or corrosive resistant and/or lined container

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Combustible materials. May react with moisture. Flammable materials. Organic compounds. Wood. Oils and lubricants. Sulfur compounds

Storage Temperature: < 175 °C; Sodium chlorite decomposes at 175°C

Specific Uses: Disinfectant/Sanitizer/Tuberculocide/Virucide/Fungicide/Algaecide/Slimicide/Deodorizer

Section 8: Exposure Controls/Personal Protection

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government

Chlorine dioxide (CAS#10049-04-4)

| | | |
|-------------------------|---------------------------------------|------------------------|
| Mexico | OEL TWA (mg/m ³) | 0.3 mg/m ³ |
| Mexico | OEL TWA (ppm) | 0.1 ppm |
| Mexico | OEL STEL (mg/m ³) | 0.9 mg/m ³ |
| Mexico | OEL STEL (ppm) | 0.3 ppm |
| USA ACGIH | ACGIH TWA (ppm) | 0.1 ppm |
| USA ACGIH | ACGIH STEL (ppm) | 0.3 pp |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 0.3 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (ppm) | 0.1 ppm |
| USA NIOSH | NIOSH REL (TWA) (mg/m ³) | 0.3 mg/m ³ |
| USA NIOSH | NIOSH REL (TWA) (ppm) | 0.1 ppm |
| USA NIOSH | NIOSH REL (STEL) (mg/m ³) | 0.9 mg/m ³ |
| USA NIOSH | NIOSH REL (STEL) (ppm) | 0.3 ppm |
| USA IDLH | US IDLH (ppm) | 5 ppm |
| Alberta | OEL STEL (mg/m ³) | 0.8 mg/m ³ |
| Alberta | OEL STEL (ppm) | 0.3 ppm |
| Alberta | OEL TWA (mg/m ³) | 0.3 mg/m ³ |
| Alberta | OEL TWA (ppm) | 0.1 ppm |
| British Columbia | OEL STEL (ppm) | 0.3 ppm |
| British Columbia | OEL TWA (ppm) | 0.1 ppm |
| Manitoba | OEL STEL (ppm) | 0.3 ppm |
| Manitoba | OEL TWA (ppm) | 0.1 ppm |
| New Brunswick | OEL STEL (mg/m ³) | 0.83 mg/m ³ |
| New Brunswick | OEL STEL (ppm) | 0.3 ppm |
| New Brunswick | OEL TWA (mg/m ³) | 0.28 mg/m ³ |
| New Brunswick | OEL TWA (ppm) | 0.1 ppm |
| Newfoundland & Labrador | OEL STEL (ppm) | 0.3 ppm |

| | | |
|-------------------------|-------------------------------|------------------------|
| Newfoundland & Labrador | OEL TWA (ppm) | 0.1 ppm |
| Nova Scotia | OEL STEL (ppm) | 0.3 ppm |
| Nova Scotia | OEL TWA (ppm) | 0.1 ppm |
| Nunavut | OEL STEL (mg/m ³) | 0.82 mg/m ³ |
| Nunavut | OEL STEL (ppm) | 0.3 ppm |
| Nunavut | OEL TWA (mg/m ³) | 0.27 mg/m ³ |
| Nunavut | OEL TWA (ppm) | 0.1 ppm |
| Northwest Territories | OEL STEL (ppm) | 0.3 ppm |
| Northwest Territories | OEL TWA (ppm) | 0.1 ppm |
| Ontario | OEL STEL (ppm) | 0.3 ppm |
| Ontario | OEL TWA (ppm) | 0.1 ppm |
| Prince Edward Island | OEL STEL (ppm) | 0.3 ppm |
| Prince Edward Island | OEL TWA (ppm) | 0.1 ppm |
| Québec | VECD (mg/m ³) | 0.83 mg/m ³ |
| Québec | VECD (ppm) | 0.3 ppm |
| Québec | VEMP (mg/m ³) | 0.28 mg/m ³ |
| Québec | VEMP (ppm) | 0.1 ppm |
| Saskatchewan | OEL STEL (ppm) | 0.3 ppm |
| Saskatchewan | OEL TWA (ppm) | 0.1 ppm |
| Yukon | OEL STEL (mg/m ³) | 0.9 mg/m ³ |
| Yukon | OEL STEL (ppm) | 0.3 ppm |
| Yukon | OEL TWA (mg/m ³) | 0.3 mg/m ³ |
| Yukon | OEL TWA (ppm) | 0.1 ppm |

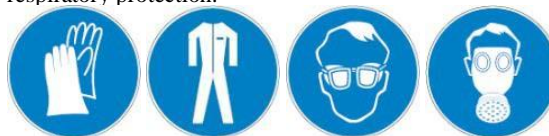
Exposure Controls

Appropriate Engineering Controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Gas detectors should be used when toxic gases may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure all national/local regulations are observed.

Personal Protective Equipment:

Gloves, protective clothing, protective goggles. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing:

Chemically resistant materials and fabrics.

Hand Protection:

Wear protective gloves.

Eye Protection:

Chemical safety goggles.

Skin and Body Protection:

Wear suitable protective clothing.

Respiratory Protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental Exposure Controls:

Do not allow the product to be released to the environment.

Other Information:

When using, do not eat, drink or smoke.

Section 9: Physical and Chemical Properties

Appearance – Color:

White powder

Physical State:

Solid

Odor:

Chlorine

pH:

Not available

| | |
|---|---|
| Melting Point/Freezing Point: | Not available |
| Initial Boiling Point and Boiling Range: | Not available |
| Flash Point: | Not available |
| Evaporation Rate: | Not available |
| Flammability (Solid, gas): | Not available |
| Upper/Lower Flammability or Explosive Limits: | Not available |
| Vapor Pressure: | Not available |
| Vapor Density | Not available |
| Relative Density (@ 25C) | Not available |
| Solubility | Soluble in water |
| Oxidizing Properties | Not available |
| Partition Coefficient: n-octanol/water: | Not available |
| Auto Ignition Temperature: | Not available |
| Decomposition Temperature: | Not available |
| Viscosity: | Not available |
| Explosion Data – Sensitivity to Mechanical Impact: | Not expected to present an explosion hazard due to mechanical impact. |
| Explosion Data – Sensitivity to Static Discharge: | Not expected to present an explosion hazard due to static discharge. |

Section 10: Stability and Reactivity

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|--|---|
| Reactivity: | Sodium chlorite reacts with acids to form spontaneously explosive chlorine dioxide gas (ClO ₂). Ammonia with chlorites produces ammonium chlorite, which is a shock-sensitive compound. Finely divided metallic or organic substances, if mixed with chlorites, are highly flammable and may be ignited on friction. A mixture of organic matter and sodium chlorite can be extremely sensitive to heat, impact, or friction. Sodium chlorite reacts very violently with organic materials containing divalent sulfur or with free sulfur (may ignite). |
| Chemical Stability: | Stable under recommended handling and storage conditions (see section 7). |
| Conditions to Avoid: | Direct sunlight, extremely high or low temperatures, and incompatible materials. Sparks, heat, open flame and other sources of ignition. |
| Incompatibility (Materials to avoid): | Strong acids. Strong bases. Strong oxidizers. Combustible materials. May react with moisture. Flammable materials. Organic compounds. Wood. Oils and lubricants. |
| Hazardous Decomposition Products: | Thermal decomposition generates: corrosive vapors. Sodium oxides. Chlorine gas. Chlorine oxides. Chlorine dioxide. |

Section 11: Toxicological Information

| GHS Required Criteria | Toxicity Criteria | Data | Comments | Chemical Constituent |
|-------------------------------------|----------------------------------|---------------------------------------|---------------------------|----------------------------|
| Acute Toxicity | ATE _{mix} (oral) | 540.98mg/kg | Harmful if swallowed | Product |
| | ATE _{mix} (dermal) | 351.48mg/kg | | Toxic in contact with skin |
| | ATE _{mix} (dust, mist) | 0.75mg/1/4hr | Toxic if inhaled | Product |
| | LD ₅₀ Oral, rat | 5400mg/kg | | Citric acid |
| | LD ₅₀ Dermal, rat | >2000mg/kg | | Citric acid |
| | LD ₅₀ Oral, rat | 165mg/kg | | Sodium chlorite |
| | LD ₅₀ Dermal, rabbit | 107.2mg/kg | | Sodium chlorite |
| | LC ₅₀ Inhalation, rat | 0.23mg/1,4hr | | Sodium chlorite |
| | LD ₅₀ Oral, rat | 93.86mg/kg (0.2% in H ₂ O) | | Chlorine dioxide |
| | LC ₅₀ Inhalation, rat | 32ppm/4hr | | Chlorine dioxide |
| Skin Corrosion/Irritation | | Not available | Causes severe skin burns | Product |
| Serious Eye Damage / Eye Irritation | | Not available | Causes serious eye damage | Product |
| Respiratory or Skin Sensitization | | Not available | Not classified | Product |
| Germ Cell Mutagenicity | | Not available | Not classified | Product |
| Teratogenicity | | Not available | | Product |
| Carcinogenicity | | Group 3 | IARC | Sodium chlorite |
| Reproductive Toxicity | | Not available | Not classified | Product |
| STOST -- Single Exposure | | Not available | Not classified | Product |
| STOST – Repeated Exposure | | Not available | Not classified | Product |
| Aspiration Hazard | | Not available | Not classified | Product |

ATE_{mix} – Acute Toxicity Estimation of mixture
 IARC – International Agency for Research on Cancer
 STOST – Specific Target Organ Systemic Toxicity

OTHER INFORMATION:

Symptoms/Injuries After Inhalation: Inhalation of this material can cause serious health effects in small amounts, leading to unconsciousness and death. May be corrosive to the respiratory tract. Dust may be harmful or cause irritation.

Symptoms/Injuries After Skin Contact: This material is toxic in small amounts through skin contact, and can cause adverse health effects or death. This material may be absorbed through the skin and eyes. Causes severe irritation which will progress to chemical burns.

Symptoms/Injuries After Eye Contact: Causes serious eye damage. Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: This material is harmful orally and can cause adverse health effects or death in significant amounts. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Ingestion may cause methemoglobinemia. Initial manifestation of methemoglobinemia is cyanosis, characterized by navy lips, tongue and mucous membranes, with skin color being slate grey. Further manifestation is characterized by headache, weakness, dyspnea, dizziness, stupor, respiratory distress and death due to anoxia. Signs and symptoms of nitrite poisoning include methemoglobinemia, nausea, dizziness, increased heart rate, hypotension, fainting and, possibly shock.

Chronic Symptoms: May cause damage to organs (spleen) through prolonged or repeated exposure.

Section 12: Ecological Information

Toxicity

Ecology – General: Not classified.

| | Environmental Impacts | Chemical Constituents |
|--------------------------------|---|---|
| Toxicity | LC ₅₀ Fish 1: 1516mg/l, 96hr, Lepomis macrochirus [static] LC ₅₀ Fish 1: 100 - 500 mg/l, 96 h - Brachydanio rerio [static] LC ₅₀ Fish 2: >100mg/l, 96 h - Lepomis macrochirus [static] EC ₅₀ Daphnia 1: 0.026 mg/l, 48 h , Daphnia magna EC ₅₀ Daphnia 2: 0.25-0.33 mg/l, 48 h , Daphnia magna, flow though. | Citric acid Sodium chlorite Sodium chlorite Sodium chlorite Sodium chlorite |
| Bioaccumulative potential | LC ₅₀ Fish 1: 0.021Brachydanio rerio Not available | Chlorine dioxide Product |
| Persistence and degradability: | Log P _{ow} = -1.75 (at 20°C) | Citric acid |
| Mobility in soil: | May cause long-term adverse effects in the environment | Product |
| PBT and vPvB assessment: | Not available | Product |
| Other adverse effects: | Not available | Product |
| | Avoid release to the environment | Product |

Section 13: Disposal Considerations

Sewage Disposal Recommendations:

The material is hazardous to the aquatic environment, Keep out of storm drains and waterways.

Waste Disposal Recommendations:

Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations

Additional Information:

Container may remain hazardous when empty. Continue to observe all precautions.

Ecology – waste materials:

Avoid release to the environment. The material is hazardous to the aquatic environment, Keep out of storm drains and waterways.

Section 14: Transport Information

In accordance with ICAO/IATA/DOT/TDG/IMDG

UN Number

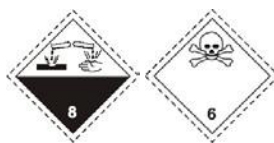
| | |
|-------------------|--------|
| UN Number (DOT): | UN2923 |
| DOT NA no.: | UN2923 |
| UN Number (TDG): | UN2923 |
| UN Number (IMDG): | UN2923 |
| UN Number (IATA): | UN2923 |

UN Proper Shipping Name

| | |
|--|---|
| Proper Shipping Name (DOT): | CORROSIVE SOLIDS, TOXIC, N.O.S., (SODIUM CHLORITE), 8; 6.1, II, Marine Pollutant. |
| Proper Shipping Name (TDG): | CORROSIVE SOLIDS, TOXIC, N.O.S., (SODIUM CHLORITE), 8; 6.1, II, Marine Pollutant. |
| Proper Shipping Name (IATA): | CORROSIVE SOLIDS, TOXIC, N.O.S., (SODIUM CHLORITE), 8; 6.1, II, Marine Pollutant. |
| Proper Shipping Name (IMDG): | CORROSIVE SOLIDS, TOXIC, N.O.S., (SODIUM CHLORITE), 8; 6.1, II, Marine Pollutant. |
| Transport Document Description (DOT): | CORROSIVE SOLIDS, TOXIC, N.O.S., (SODIUM CHLORITE), 8; 6.1, II, Marine Pollutant. |
| Transport Document Description (TDG): | CORROSIVE SOLIDS, TOXIC, N.O.S., (SODIUM CHLORITE), 8; 6.1, II, Marine Pollutant. |
| Transport Document Description (Adr)(IMDG/IATA): | CORROSIVE SOLIDS, TOXIC, N.O.S., (SODIUM CHLORITE), 8; 6.1, II, Marine Pollutant. |

Transport Hazard Class(es)

| | |
|-----------------------|--|
| Hazard Classes (DOT): | 8 – Class 8 – Corrosive Material, 49CFR173.136 |
| Hazard Labels (DOT): | 8 – Corrosive 6.1 – Poison |



| | |
|--|--|
| DOT Symbols: | G – Identifies PSN requiring a technical name. |
| Packing Group (DOT): | II – Medium Danger |
| DOT Special Provisions (49CFR172.102): | IB8 – Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). IP2 – When IBCs other than metal or rigid plastics IBCs are used, they must be offered for transportation in a closed freight container or a closed transport vehicle. IP4 – Flexible, fiberboard or wooden IBCs must be sift-proof and water-resistant or be fitted with a sift-proof and water-resistant liner. T3 – 2.65 178.274(d)(2) Normal..... 178.275(d)(2) |

TP33 – The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure- relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.

DOT Packaging Exceptions (49CFR173.XXX):
DOT Packaging Non Bulk (49CFR173.XXX):
DOT Packaging Bulk (49CFR173.XXX):

154
212
240

TDG Primary Hazard Classes:
TDG Subsidiary Classes:
Hazard Labels (TDG):

8 – Corrosives
6.1 – Toxic
8 – Corrosive substances
6.1 – Toxic substances



Packing Group(TDG):
TDG Special Provisions:

II – Medium Danger
16 - 1). The technical name of the most dangerous substance related to the primary class must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(i)(A) of Part 3, Documentation. The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4, Dangerous Goods Safety Marks.
2). subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical: a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S.; b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S.; c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S.; d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S.; or e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the “Food and Drugs Act”.

Explosive Limit And Limited Quantity Index:
Passenger Carrying Road Vehicle or Passenger:
Carrying Railway Vehicle Index

1
15

Class (IMDG):
Subsidiary Risks (IMDG):
Danger Labels (IMDG):

8 – Corrosive substances
6.1
8 – Corrosive substances, 6.1 – Toxic substances



Packing Group (IMDG):

Class (IATA):

Subsidiary Risks (IATA):

Hazard Labels (IATA):

II – Medium Danger

8 – Corrosive substances

6.1

8 – Corrosive substances, 6.1 – Toxic substances



Packing Group (IATA):

Marine Pollutant:

II – Medium Danger

P



Additional Information

Emergency Response Guide (ERG) Number:

Additional Information:

138

This Product meets the limited quantities as follows: DOT – Not regulated as dangerous goods when shipped in inner packagings equal to or less than 1 kg. Otherwise, the above descriptions apply.

Transport by Sea

DOT Vessel Stowage Location:

B – (i). The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) “On deck only” on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

40 – Stow “clear of living quarters”

DOT Vessel Stowage Other:

Subsidiary Risks (IMDG):

Limited Quantities (IMDG):

Special Provisions (IMDG):

Excepted Quantities (IMDG):

IBC Packing Instructions (IMDG):

IBC Special Provisions (IMDG):

Packing Instructions (IMDG):

Tank Instructions (IMDG):

Tank Special Provisions (IMDG):

Stowage Category (IMDG):

EMS-NO. (Fire):

MFAG-NO:

EMS-NO. (Spillage):

6.1

1kg

274

E2

IBC08

B2, B4

P002

T3

TP33

B

F-A

154

S-B

Air Transport

DOT Quantity Limitations Passenger Aircraft/Rail (49 CFR 173.27):

15kg

DOT Quantity Limitations Cargo Aircraft Only (49 CFR 175.75):

50kg

Subsidiary Risks (IATA):

6.1

CAO Packing Instruction (IATA):

863

CAO Max Net Quantity (IATA):

50kg

PCA Packing Instruction (IATA):

859

PCA Limited Quantities (IATA):

Y844

PCA Limited Quantity Max Net Quantity (IATA):

5kg

PCA Max Net Quantities (IATA):

15kg

PCA Excepted Quantities (IATA):

E2

Special Provision (IATA):

A3, A803

Section 15: Regulatory Information

US Federal Regulations

TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS:

Citric acid, sodium chlorite, and chlorine dioxide are listed on TSCA.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) Section 311/312

Product – Immediate (acute) health hazard, Delayed (chronic) health hazard.

Citric acid – Immediate (acute) health hazard.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) Section 313

Chlorine dioxide is subject to Emission Reporting at 1.0%

US State Regulations:

Citric acid (CAS#77-92-9)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

Sodium chlorite (7758-19-2)

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2

U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2

RTK - U.S. - Massachusetts - Right To Know List

U.S. - Minnesota - Chemicals of High Concern

U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups.

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

Chlorine dioxide (CAS#10049-04-4)

U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic

U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)

U.S. - Colorado - Primary Drinking Water Regulations - Maximum Residual Disinfectant Level Goals (MRDLGs)

U.S. - Colorado - Primary Drinking Water Regulations - Maximum Residual Disinfectant Levels (MRDLs)

U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30min)

U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8hr)

U.S. - Delaware - Accidental Release Prevention Regulations - Sufficient Quantities

U.S. - Delaware - Accidental Release Prevention Regulations - Threshold Quantities

U.S. - Delaware - Accidental Release Prevention Regulations - Toxic Endpoints

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities

U.S. - Georgia - Drinking Water - Maximum Residual Disinfectant Levels (MRDLs)

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)

U.S. - Idaho - Occupational Exposure Limits - TWAs

U.S. - Louisiana - Reportable Quantity List for Pollutants

U.S. - Maine - Air Pollutants - Hazardous Air Pollutants

U.S. - Massachusetts - Drinking Water - Maximum Contaminant Levels (MCLs)

U.S. - Massachusetts - Drinking Water - Maximum Residual Disinfectant Levels (MRDLs)

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2

U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2

RTK - U.S. - Massachusetts - Right To Know List

U.S. - Massachusetts - Toxics Use Reduction Act

U.S. - Michigan - Occupational Exposure Limits - STELs

U.S. - Michigan - Occupational Exposure Limits - TWAs

U.S. - Michigan - Process Safety Management Highly Hazardous Chemicals

U.S. - Minnesota - Chemicals of High Concern

U.S. - Minnesota - Hazardous Substance List

U.S. - Minnesota - Permissible Exposure Limits - STELs

U.S. - Minnesota - Permissible Exposure Limits - TWAs

U.S. - Missouri - Drinking Water - Maximum Residual Disinfectant Levels (MRDLs)

U.S. - Nebraska - Drinking Water - Maximum Residual Disinfectant Levels (MRDLs)

U.S. - New Hampshire - Drinking Water - Maximum Residual Disinfectant Levels (MRDLs)

U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour

U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual

U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances

U.S. - New Jersey - Environmental Hazardous Substances List

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - New Jersey - Special Health Hazards Substances List

U.S. - New Jersey - TCPA - Extraordinarily Hazardous Substances (EHS)

U.S. - New York - Occupational Exposure Limits - TWAs

U.S. - Pennsylvania - Drinking Water - Maximum Residual Disinfectant Levels (MRDLs)

RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 24-Hour

U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual

U.S. - South Carolina - Maximum Residual Disinfectant Levels (MRDLs)

U.S. - Tennessee - Occupational Exposure Limits - STELs

U.S. - Tennessee - Occupational Exposure Limits - TWAs

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

U.S. - Utah - Drinking Water - Maximum Residual Disinfectant Levels (MRDLs)

U.S. - Vermont - Permissible Exposure Limits - STELs

U.S. - Vermont - Permissible Exposure Limits - TWAs

U.S. - Washington - Permissible Exposure Limits - STELs

U.S. - Washington - Permissible Exposure Limits - TWAs

U.S. - West Virginia - Water Quality - Groundwater Standards - Ceiling Concentrations

U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet

U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 75 Feet

U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater

U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet

U.S. - Wyoming - Process Safety Management - Highly Hazardous Chemicals

Canadian Regulations

Shaw Pure Liquid Unreacted Pouch

| | |
|----------------------|--|
| WHMIS Classification | Class D Division 1 Subdivision B – Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision B – Toxic material causing other toxic effects. Class E – Corrosive Material Class F – Dangerously Reactive Material |
|----------------------|--|



Citric acid (CAS#77-92-9)

| | |
|----------------------|--|
| DSL | Listed on the Canadian DSL (Domestic Substance List) |
| IDL | Listed on the Canadian IDL (Ingredient Disclosure List) – Concentration 1.0% |
| WHMIS Classification | Class D Division 2 Subdivision B – Toxic material causing other toxic effects. |

Sodium chlorite (CAS#7758-19-2)

| | |
|----------------------|---|
| DSL | Listed on the Canadian DSL (Domestic Substance List) |
| IDL | Listed on the Canadian IDL (Ingredient Disclosure List) – Concentration 1.0% |
| WHMIS Classification | Class C – Oxidizing Material Class D Division 1 Subdivision B – Toxic material causing immediate and serious effects Class E – Corrosive Material |

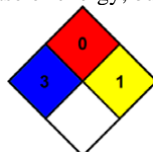
Chlorine dioxide (CAS#10049-04-4)

| | |
|----------------------|---|
| DSL | Listed on the Canadian DSL (Domestic Substance List) |
| IDL | Listed on the Canadian IDL (Ingredient Disclosure List) – Concentration 1.0% |
| WHMIS Classification | Class A – Compressed Gas Class C – Oxidizing Material Class D Division 1 Subdivision A – Very toxic material causing immediate and serious toxic effects Class E – Corrosive Material Class F – Dangerously Reactive Material |

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

Section 16: Other Information

| | |
|----------------------------|---|
| NFPA Health Hazard: | 3 – Short exposure could cause serious temporary or residual injury even though prompt attention was given. |
| NFPA Fire Hazard: | 0 – Materials that will not burn. |
| NFPA Reactivity: | 1 – Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently. |



| | |
|------------------------------|---|
| Other Information: | This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200. |
| Revision Number: | 7.0 |
| Revision explanation: | Replaced sewers with storm drains. Storm drain is more appropriate and descriptive. |
| Information Sources: | RTECS, ECHA, REACH, OSHA 29CFR 1910.1200 |

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