25% SODIUM CHLORITE SOLUTION
MATERIAL DATA SAFETY SHEET

1. Chemical Product And Company Information
Chemical Name: Sodium Chlorite Solution 25%
Synonyms/Trade Names: Sodium Chlorite Solution, Chlorite Solution
Chemical Family:
Formula: NaClO2
Molecular Weight: 90.45
CAS No.: 7758-19-2
UN# 1908
Uses:
Generation of chlorine dioxide for use as a disinfectant or for use as a water purifier
Manufacturer & Supplier Transportation Emergency Telephone Numbers:
Sodium Chlorite manufactured by Aragonesas S.A. Madrid Spain
Solution manufactured and bottled by Keavys Corner, Sebring Florida
Emergency Telephone Numbers 888 751 4964 863-451-2175

2. Composition / Information On Ingredients
Name: Conc. % By Weight CAS No.
Sodium Chlorite 25 % 7758-19-2
Inert Ingredients 6.25%
Water Balance 7732-18-5

3. Hazard Identification
Emergency Overview:
Colourless, odourless solution with a slight greenish tint. Does not burn when wet. When dried it can decompose explosively under intense fire conditions forming oxygen and hydrogen chloride gas.
MODERATE to STRONG OXIDIZER
Promotes combustion when dried. Can be ignited readily by heat, shock or friction, and/or explode when contaminated by combustible or flammable materials (dry organic materials). Reacts violently with sulfur and sulfur-containing materials, red phosphorus and strong reducing agents.
At low pH, reacts releasing corrosive and dangerously reactive chlorine dioxide.
Routes of Entry:
Inhalation, Skin Contact/absorption, Eye Contact or Ingestion
Symptoms of Exposure:
Inhalation: Inhalation of vapors or mists may cause irritation of the muscus membranes and respiratory tract. Symptoms may include coughing, bloody nose, and sneezing. Severe exposure may cause lung damage.
Skin Contact/absorption: Direct contact may cause irritation and or burns with symptoms of redness, itching, swelling and possible destruction of tissue.
**Eye Contact:** Direct contact may cause irritation and or burns with symptoms of redness, itching, swelling and possible destruction of tissue.

**Ingestion:** Ingestion may cause gastroenteritis with any or all of the following symptoms: nausea, vomiting, lethargy, diarrhea, bleeding, or ulceration. Acute ingestion of large quantities may also cause anemia due to the oxidizing affects of the chemical.

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**4. First Aid Measures**

**Skin:** Remove contaminated clothing and keep it wet until washed. Wash the affected area with soap and water. If irritation develops, get medical attention.

**Eyes:** Flush with water for a minimum of 15 minutes. Get medical attention.

**Inhalation:** If irritation or other symptoms are experienced, remove victim to fresh air. If symptoms persist, get medical attention.

**Ingestion:** DO NOT INDUCE VOMITING. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Otherwise rinse mouth with water and give 8 to 10 ounces (or 250 to 300 ml) of milk, egg whites or gelatin solution. Get medical attention immediately.

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**5. Fire-Fighting Measures**

**Conditions Of Flammability:**

Does not burn, but combustibles wetted with this solution and subsequently dried are easily ignited and burn vigorously.

**Means To Extinguish:** Water is the only effective extinguisher.

**Hazardous Combustion Products:** None, does not burn.

**Flash Point & Method:** Not applicable

**Upper Flammability Limit:** Not applicable

**Lower Flammability Limit:** Not applicable

**Auto-Ignition Temperature:** Not applicable

**Mechanical Impact Sensitivity:** Not applicable (water solution)

**Static Discharge Sensitivity:** Not applicable (water solution)

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**6. Accidental Release Measures**

**Leak Or Spill Procedures:** Contain spills. Collect into clean compatible metal or high density polyethylene containers. Wash away residues with large amounts of water. DO NOT USE RAGS, SAWDUST OR OTHER COMBUSTIBLE ABSORBENTS.

**Waste Control Procedures:** Wash or incinerate all contaminated combustible material in an environmentally acceptable manner before it dries out. Consult supplier regarding disposal of reclaimed sodium chlorite.

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**7. Handling Storage**

**Handling Procedures And Equipment:**
Use corrosion resistant tools and equipment. Avoid skin or clothing contact.

**Storage:**
Store in a cool, dry fireproof building. KEEP AWAY FROM COMBUSTIBLES, ORGANICS AND ACIDS.

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**8. Exposures Controls / Personal Protection**

**Protective Equipment:**
Chemical safety goggles.
Butyl rubber or neoprene gloves.
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Butyl rubber or neoprene gloves.
Dust/mist mask in dusty or misty locations.
Wear waterproof or washable outer clothing.
Remove contaminated clothing and wash it before it dries.
Engineering Controls:
Use separate, corrosion-resistant ventilation system to capture mist or fume. Do not use wood or other combustibles to construct vent system. Prevent entry into bearings or gear boxes, contact with organics (oils) could cause an explosion.

9. Physical And Chemical Properties
State: Liquid
Odor: Faint bleach-like odour
Boiling Point: Depends on concentration 100 - 105°C
Melting Point: Not applicable
Freezing Point: Depends on concentration -4 - -10°C
pH: 12.5 to 13.5
Appearance: Clear Solution, pale green clear
Specific Gravity: Depends on concentration
1.28 @ 20°C for 25 wt% Soln.

10. Stability And Reactivity
Chemical Stability: Stable in itself, but reactive as detailed below.
Reactivity Conditions Reacts on mixing with acids to give toxic chlorine dioxide and chlorine gases. Mixtures with combustibles, if allowed to dry out, are easily ignited by heat or friction and burn vigorously or may explode.
Incompatible Substances:
Incompatible with all combustibles and reducing agents, especially phosphorus, sulfur-containing materials, powdered metals, ammonium compounds. Incompatible with acids.
Hazardous Decomposition Products:
Residues of sodium chlorite, from dried-out solution, will give off oxygen on being heated strongly.

11. Toxicological Information
Skin Contact: Irritating to the skin if not washed off promptly. Dermatitis is likely to occur from repeated or prolonged contact.
Skin Absorption: Not available
Eye Contact: Causes severe eye irritation. May cause permanent damage because of its corrosive properties.
Inhalation: Spray or mist is irritating to the nose and throat.
Ingestion: Will irritate and may cause corrosion of the gastrointestinal tract. May cause vomiting, nausea, diarrhea, cramps and pain. May damage blood cells, liver or kidney.
LD50: 1650 mg/kg (rat) for 10 wt% Soln.
LC50: Not available
Exposure Limits: Not available
Irritancy: Severe (corrosive)
Sensitization: Not reported as a human sensitizer.
Carcinogenicity: Does not appear in reference lists.
Teratogenicity & Mutagenicity: Not teratogenic even at maternally toxic doses. Mutagenicity has been demonstrated in bacteria and mammalian cell cultures, but not in experiments involving whole animals.
Reproductive Toxicology: Shown to be toxic to mammalian fetuses only at doses toxic to the mother. In one study, sodium chlorite given in drinking water showed a small but statistically significant increase in the percentage of abnormal sperm; another study was negative.
Toxicological Synergism: Not available.

12. Ecological Information
Ecological Information: This product is toxic to aquatic life. Do not discharge into lakes, streams, ponds, sewers or other
waters unless in accordance with the permitting authority.

Biodegradability:
In soil, will degrade to sodium chloride but may form chlorine dioxide in contact with acidic soils. Chlorate is an intermediate product of decomposition; it will slowly degrade to chloride.

Aquatic Toxicity:
In water, sodium chlorite will eventually degrade to sodium chloride.

13. Disposal Considerations
Disposal Considerations: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.

14. Transportation Information
PROPER SHIPPING NAME: CHLORITE SOLUTION
UN NUMBER: 1908
CAS NUMBER: 7758-19-2
HAZMAT CLASS: Class 8 Corrosive
PACKAGING CLASS: II

15. Regulatory Information
OSHA Hazard Communication Evaluation:
Meets criteria for hazardous material, as defined by 29 CFR 1910.1200.
Canada
WHMIS Hazardous Class:
D1B Toxic Material
C Oxidizing Material
E Corrosive Material
Environmental:
All components of this product are either on the USA Toxic Substances Control Act (TSCA) Inventory List the Canadian Domestic Substances List (DSL), Non-Domestic Substances List (NDSL), or exempt from all three lists.
Transportation:
Refer to Section 14.

16. Other Information
Prepared By:
Keavys Corner
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Sebring FL
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