

MATERIAL SAFETY DATA SHEET

FIVE STAR AFFILIATES, INC.  
6731 E. 50TH AVENUE  
COMMERCE CITY, CO. 80022

PHONE: 303-287-0186  
MSDS DATE: 12-15-10  
REPLACES: 01-01-08

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IDENTIFICATION

**PRODUCT NAME:** STAR-XENE  
**COMPOSITION:** BUFFERED CHLORINE DIOXIDE SOLUTION

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This product does not require submission of an annual report on the release of toxic chemicals that appear in 40 CFR 372 (for SARA 313).

INGREDIENTS:	CAS NO.	% Wt.	PEL-OSHA	TLV-ACGIH
OXYCHLORINE COMPOUNDS	IN TSCA	1-10	None Established	None Established
BUFFER (S)	IN TSCA	1-5	None Established	None Established

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PHYSICAL DATA

<b>APPEARANCE:</b> Clear pale yellow green solution	<b>ODOR:</b> Chlorine or ozone like odor
<b>SOLUBILITY IN WATER:</b> Complete	<b>pH of CONCENTRATE:</b> 8.5 to 9.5
<b>EVAPORATION RATE:</b> Not determined	<b>BOILING POINT:</b> 105° C
<b>SPECIFIC GRAVITY:</b> (H <sub>2</sub> O=1) : 1.065 to 1.095	<b>VAPOR PRESSURE:</b> (mm Hg): Approximates water

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FIRE AND EXPLOSION DATA

**FLAMMABILITY:** Contact with acids, organic materials, reducing agents or chlorine Donors will produce chlorine dioxide gas and heat. The lower explosive limit (LEL) for chlorine dioxide is 10%. Flush area with large amounts of air to keep the chlorine dioxide concentration below 10%.  
If allowed to dry, this product can be easily ignited by heat or friction. Do not allow this product to dry on cloth. Oxidation can cause a fire hazard.

**EXTINGUISHING MEDIA:** Flood with water. Apply water from a protected location or from a safe distance.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Oxidizing material. Increases flammability of combustible, organic or other readily oxidizable materials.

**NFPA HAZARD RATING:** Health 2; Flammability 1; Reactivity 0

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### HEALTH HAZARD DATA

- Causes eye, skin and respiratory tract irritation.
  - May cause burns
  - Harmful if swallowed. Causes irritation of the gastrointestinal tract, nausea, vomiting and diarrhea.
  - Oxidizing material. Increases flammability of combustible, organic or other readily oxidizable materials.
  - Contact with acids, organic materials, reducing agents or chlorine donors will produce chlorine dioxide gas and heat. The lower explosive limit (LEL) for chlorine dioxide is 10%. Flush area with large amounts of air to keep the chlorine dioxide concentration below 10%.
  - If allowed to dry, this product can be easily ignited by heat or friction.
  - Do not allow this product to dry on cloth. Oxidation can cause a fire hazard.
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### EMERGENCY & FIRST AID PROCEDURES

<b>EYE CONTACT:</b>	Immediately flush with plenty of water for at least 15 minutes. Hold eyelids open while flushing. If irritation persists, call a physician.
<b>SKIN CONTACT:</b>	Immediately wash off in flowing water or shower. To prevent fire, rinse contaminated clothing until chemical is fully removed. If irritation persists, get medical attention.
<b>INGESTION:</b>	If person is conscious and able to swallow, give large amounts of water to dilute. If vomiting occurs, keep head below hips to help prevent aspiration. Get medical attention immediately.
<b>INHALATION:</b>	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician..

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### SPECIAL PROTECTION INFORMATION

<b>RESPIRATORY PROTECTION:</b>	A NIOSH/MSHA-approved respirator, suitable for use in a chlorine or chlorine dioxide atmosphere, as necessary. If respiratory protection is used, follow all requirements for respiratory programs set forth in OSHA regulations (29 CFR 1910.139).
<b>VENTILATION SYSTEM:</b>	General; local exhaust ventilation as necessary to control any air contaminants to within their PELs or TLVs during the use of this product.
<b>SKIN PROTECTION:</b>	Body protection as necessary to prevent skin contact.
<b>EYE PROTECTION:</b>	Safety glasses (with side shields).
<b>PROTECTIVE GLOVES:</b>	Rubber or neoprene gloves.

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### REACTIVITY DATA

<b>INCOMPATIBLE MATERIALS:</b>	Contact with acids, organic materials, reducing agents and chlorine donors will toxic chlorine dioxide.
<b>STABILITY:</b>	Product is stable.
<b>POLYMERIZATION:</b>	Will not occur.
<b>DECOMPOSITION PRODUCTS:</b>	Thermal decomposition will produce toxic chlorine dioxide gas.

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### SPILL OR LEAK PROCEDURES

**SPILL:** See Emergency/ First Aid Procedures and Special Protection Information for hazards and exposure controls. Flush with water to dilute. Do not allow contact with rags, paper or other oxidizable materials. For large spills, evacuate area, contain liquid and transfer to closed polyethylene drums. Prevent contact With oxidizers and acids. Do not allow to dry. Keep out of water supply. Flush area with water after Liquid is removed.

**\*\*Note\*\*** In the event of an accidental release of this material, the above procedures should be followed. Additionally, proper exposure controls and personal protection equipment should be used.

**DISPOSAL:** US EPA Waste Number: Not Regulated  
Federal, state and local disposal laws and regulations will determine the proper waste disposal/recycling /reclamation procedure. All waste materials should be reviewed to determine the applicable hazards (testing may be necessary). Disposal requirements are dependent on the hazard classification and will vary by location and the type of disposal selected.

**\*\*NOTE\*\*** Chemical additions, processing or otherwise altering this material may make the waste management information presented above incomplete, inaccurate or otherwise inappropriate.

As local regulations may vary; all waste must be disposed/recycled/reclaimed in accordance with federal, State, and local environmental control regulations.

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### TRANSPORTATION

#### INTERNATIONAL

UN Number: Not regulated

#### UNITED STATES

EPA Waste Number: Not Regulated

DOT Classification: Not Regulated

#### CANADA

PIN Number: Not Regulated

TDG Class: Not Regulated

#### EC

DGL: Not Determined

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**EMERGENCY TELEPHONE: INFOTRAC 800-535-5053**