

CFI Chem Fresh, Inc.

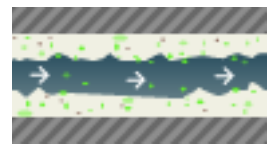
OXCIDETM

Supplying *Oxide*TM for Food Facility Water

Pure HOCl Oxidizer	Low Sodium
Neutral pH	Non Toxic
Non Caustic	Tasteless (at 650mV ORP)
No hydroxyl ions	Odorless (at 650mV ORP)

*Oxide*TM is a water treatment for all of your facility water. It is a mild non-toxic, non-hazardous chemical that is added to the main water supply on a proportional injection ratio. Conditioning the water by *Oxide*TM oxidizes the water and neutralizes the carbonates and bicarbonates and softens the water. Harmful deposits such as hard scale of Calcium, Magnesium, Silica, etc. are unable to form their crystalline structures or trap organic materials, and easily wash away leaving surfaces clean.

*Oxide*TM is a unique chemical with powerful oxidative properties at a neutral pH. Derived from salt and proprietary electrochemical treatment process it creates pure HOCl (hypochlorous acid), which is the active ingredient of chlorination treatments. In this special formulation the sodium is rejected and total dissolved solids are removed, thereby producing very unique chemical properties.



Before



After



Before



After

Normal scale forms a hard, insoluble and interlocking network of vitreous scale, which plugs plumbing, traps organic materials, interferes with heat transfer and damages equipment.

*Oxide*TM changes the chemical structure of scale, and dissolves Calcium and Magnesium salts. It alters the morphology of these crystals to small, evenly shaped rounded grains that form an unconsolidated powdery compound that won't adhere to metallic or PVC surfaces and is easily washed away.

Applications

Facility Water	Misting
Water Distribution System	Spray Systems
Ice Machines	Hydro Cooler
Ice Injector	Hydro Vac
Flume lines	Cooling Towers
Wash Tanks	Well Water
Irrigation Systems	

Facility Types

Poultry	Canning
Fresh Cut Processors	Dairy
Packing Houses	Green Houses
Frozen Foods	Hatcheries
Beverage	Fisheries
Juice	Meat Processing
Processed Foods	Plants

www.chemfresh.com

P.O. Box 843; Merced, CA 95341 Phone: (818) 585-3960 Fax: (818) 688-8101

Oxide™ Summary

Oxide™ Features

- Mildly oxidizes and conditions water
- Prevents and removes mineral deposits of Magnesium and Calcium Carbonates
- Prevents, exposes and removes organics and other deposits

Oxide™ Benefits

- Prevention of scale and hard mineral deposits
- Prevention and removal of organics
- Improves sanitation process
- Reduces labor
- Improves chemical function in water
- Reduces chemical usage
- Improves heat exchange and energy efficiency
- Improves equipment performance
- Reduces equipment maintenance

Oxide™ Advantages

- Non Toxic
- Non hazardous
- Low Sodium
- Neutral pH
- Liquid form
- Easy to manage and apply based on flow or ORP
- Saves money and time

Oxide™ Characteristics

- Hypochlorous Acid (pH 6.8)
- Chlorine derivative
- Low Sodium
- No hydroxyls
- Very low total dissolved solids
- Low ionic strength

OXCIDE™ Treatment at Food Process Facilities



Entire facility water distribution treatment resulted in descaling of pipes, ice machines, cooling towers, floors, heat exchange surfaces, removed organics and removed deposits on other facility equipment.

Facility treatment over 60 days resulted in regular progression of descaling, and increasing ORP values throughout the facility. Descaling was apparent in all areas that resulted in direct cost reduction, chemical usage, maintenance labor, and improved efficiency and food safety.



Typical injection system treats water proportional to flow in the main water line.



Before treatment, scale deposits formed on the floors and surrounding area.



After 60 days of treatment, the area floors were clean and slight remaining scale was soft and powdery.



Initial hard deposits on plate ice machine forms within a few days, has to be cleaned with acid.



30 days after treatment, scale was partially removed and dissolved away with normal use.



60 days after treatment, scale was entirely removed and no new scale was formed.



Initial hard deposits on rotary ice machine forms within a few days.



30 days after treatment, scale was partially removed with normal use.



60 days treatment, scale was entirely removed and no new scale formed.

OXCIDETM Treatment of Pasteurizer / Cooler



Pasteurizer/Cooler water treatment resulted in soft water, descaling of cooling tunnel surfaces, inside panels and conveyer surfaces where water came in contact.

Descaling resulted in reduction of organic deposits, maintenance labor, improved efficiency, and food safety.



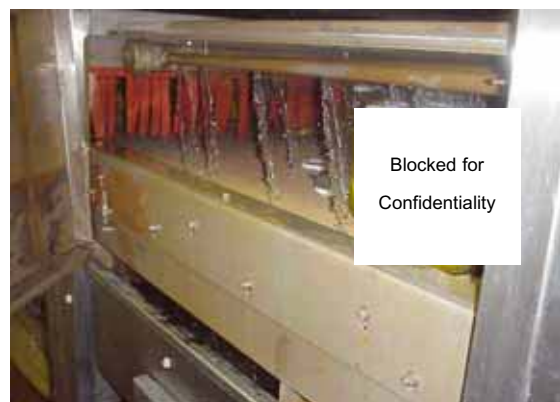
Initial mineral scale is hard and deposits on the panel of the pasteurizer.
Picture shown before Oxcide treatment.



After 7 days of treatment, the panel was clean.



Untreated water forms hard scale deposits on the wall of the pasteurizer.
Picture shown before Oxcide treatment.



After 7 days of treatment, scale was removed.

SDS – SAFETY DATA SHEET

1. Identification

Product identifier: OXCIDE®

Synonyms: Hypochlorous Acid Solution

Chemical Formula: HOCl

Recommended and Restriction Use of the Chemical:

OXCIDE® is an ANSI/NSF 60 certified water treatment chemical. It has numerous uses as deposition and scale control in greenhouse and nursery, food process, poultry, dairy and hospitality industry.

Supplier : Chem Fresh, Inc.
411 West Avenue, Merced, CA 95340
Phone: (818) 585 – 3960

Emergency Phone Number: 800-424-9300 (CHEMTREC 24-Hr Emergency within USA and Canada)

2. Hazard(s) Identification

Hazard Classification of the Chemical: Non-Flammable, Non-Toxic, Non-Corrosive

Signal Word: N/A

Hazard Statement(s):

- Contact of eye tissues with the liquid may cause slight irritation.
- Inhalation of high vapor concentrations may cause shortness of breath, irritation of mucous membranes.
- Ingestion of this material is expected to cause gastrointestinal irritation.

Pictogram: N/A

Precautionary Statements:

- P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

P304 + P340: IF INHALED: Remove victim 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.

Description of Any Hazards Not Otherwise Classified: Not applicable

3. Composition / Information on Ingredients

Chemical Name: Hypochlorous Acid Solution

Common name and synonyms: OXCIDE®

CAS Number: 7790-92-3

Molecular Weight: 52.46 g/mol

Component	CAS Number	Percentage	Hazardous
Hypochlorous Acid	7790-92-3	0.02-0.08%	No
Water	7732-18-5	99.92-99.98%	No

4. First-Aid Measures

Inhalation:

If inhaled, remove to fresh to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give Oxygen. Get medical attention.

Ingestion:

Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact:

The compound is not likely to be hazardous by skin contact but cleansing the skin after use is advisable.

Eye Contact:

Remove contact lenses. Flush eyes thoroughly with water for 15 minutes. If irritation persists, get medical attention.

5. Fire-Fighting Measures

Fire: Not considered to be a fire hazard.

Explosion: Not considered to be an explosion hazard.

Fire Extinguishing Media: Water, Carbon Dioxide, or other dry chemical firing fighting agents.

Special Information: N/A

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear appropriate personal protective equipment recommended in Section 8 (Exposure Controls/ Personal Protection) of this SDS.

Environmental Precautions, Methods, and Materials for Containment and Cleaning Up:

Remove to drain and flush spill area with copious amount of water.

7. Handling and Storage

Precautions for Safe Handling and Conditions for Safe Storage, Including Any Incompatibilities:

Store and handle in accordance with all current regulations and standards. Keep in a properly labelled and tightly closed container. Store in a cool dry and well-ventilated area. Keep separated and do not contaminate product with incompatible substances (see Section 10). Avoid extensive inhalation of product vapors during handling.

8. Exposure Controls / Personal Protection

Airborne Exposure Limits: N/A

Ventilation System: Use in adequate ventilation areas.

Personal Protective Equipment (PPE)

Eye Protection: Wear chemical safety goggles where splashing of solution is possible.

Respiratory Protection: Not required.

Skin and Body Protection: Not required.

9. Physical and Chemical Properties

Appearance: Clear liquid

Upper / Lower Flammability or Explosive Limits: N/A

Odor: Slight Chlorine

Vapor Pressure: Same as water

Odor Threshold: No data available

Vapor Density: No data available

pH: 6.5 – 7.5

Relative Density: 8.5 lb/gal

Melting Point: No data available

Freezing Point: 32°F

Solubility: Miscible

Boiling Point / Boiling Range: 212°F

Flash Point: > 212°F

Evaporation Rate: No data available

Flammability: Non-flammable

Partition Coefficient: n-octanol / water: No data available

Auto-ignition Temperature: No data available

Decomposition Temperature: > 212°F

Viscosity: No data available

Specific Gravity: No data available

10. Stability and Reactivity

Reactivity: OXCIDE® is not reactive under normal pressure and temperature.

Chemical Stability: OXCIDE® is relatively stable at normal temperatures and storage conditions.

Possibility of Hazardous Reactions and Conditions to Avoid:

Avoid heat, freezing temperature, sunlight, ultraviolet, and contamination with foreign and/or incompatible materials.

Incompatible Materials:

Strong acids, strong oxidizing agents, and organic materials.

Hazardous Decomposition Products:

Hazardous decomposition of the product should not occur under normal use and storage condition. Hazardous decomposition products include oxides of Carbon, Nitrogen, and Sulfur.

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Routes of Entry: inhalation, dermal, and eye.

Potential Health Effects: Contact of eye tissues with the liquid may cause slight irritation. Inhalation of high vapor concentrations may cause shortness of breath, irritation of mucous membranes. Ingestion of this material is expected to cause gastrointestinal irritation.

Carcinogenicity Information: None of the components present in this material are listed by IARC, NTP, OSHA as a carcinogen.

Acute Toxicity: No data available

12. Ecological Information

Ecotoxicity: No data available.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

13. Disposal Considerations

Disposal of the waste must be in accordance with all applicable Federal, State/Provincial, and Local regulations. 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. Waste materials should be reviewed to determine the applicable hazards.

14. Transport Information

DOT:

UN Proper Shipping Name: N/A

UN Number: N/A

Hazard Class/ Division: N/A

15. Regulatory Information

T.S.C.A Status: Listed.

16. Other Information

Prepared by: Chem Fresh, Inc.

Revision Date: June 10, 2015

Replaces Revision: August 25, 2011

HMIS: (Scale 0-4)

Health Rating: 0

Flammability Rating: 0

Reactivity Rating: 0

NFPA – Hazard Identification Ratings: (Scale 0-4)

Health Rating: 0

Flammability Rating: 0

Reactivity Rating: 0

The information listed above is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Chem Fresh, Inc. The data on this sheet relates only to the specific material designated herein. Chem Fresh, Inc. assumes no legal responsibility for use or reliance upon this data.

OSHA Standard 29 CFR 1910.1200 requires that information regarding hazards of the chemicals be provided to employees by means of a hazard communication program, including but not limited to chemical labeling, safety data sheets, training, and access to written records. It is your legal duty to make all information in this Safety Data Sheet available to your employees.

End of Safety Data Sheet



OMRI Approved

The Organic Materials Review Institute (OMRI) is a national nonprofit organization that determines which input products are allowed for use in organic production and processing. OMRI Listed or approved products may be used on operations that are certified organic under the USDA National Organic Program.



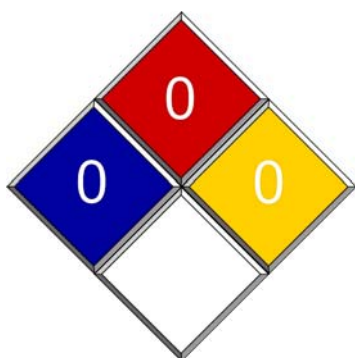
NSF 60 Approved

NSF International, The Public Health and Safety Company™, a not-for-profit, non-governmental organization, is the world leader in standards development, product certification, education, and risk-management for public health and safety. NSF/ANSI Standard 60: Drinking Water Treatment Chemicals -- Health Effects is the nationally recognized health effects standard for chemicals which are used to treat drinking water.



Kosher Approved

The insignia of the Star-K Kosher is a symbol of expertise and integrity in providing kosher supervision. The Star-K has been the leader in the field of reliable Kosher for nearly 40 years. It has made reliable Kosher available in a range of products spanning the gamut of human needs and has made these products accessible around the world.



The NFPA Diamond

The NFPA diamond is designed to give general hazard information for chemicals.

Blue: Health Hazard, 0 - No Hazard

Red: Fire Hazard, 0 - Will not burn

Yellow: Reactivity Hazard, 0 - Stable

White: Special Hazard, None