



A CSW Industrials Company

SAFETY DATA SHEET

SCALE FLUSH
Boiler Scale Remover

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product name
Scale Flush

Product Codes
68732

Chemical Family
Organic/Inorganic

Use
Boiler Water Treatment

Manufacturer's Name
RectorSeal LLC
2601 Spenwick Drive
Houston, Texas 77055 USA

Date of validation
January 3, 2020

Date of Preparation
January 3, 2020

HMIS Codes
Health 2
Flammability 0
Reactivity 1
PPI B

Emergency Telephone No.
Chemtrec 24 Hours
(800) 424-9300 USA
(703) 527-3887 International

Technical Service Telephone No.
(800) 231-3345 or (713) 263-8001

SECTION 2 - HAZARDS IDENTIFICATION

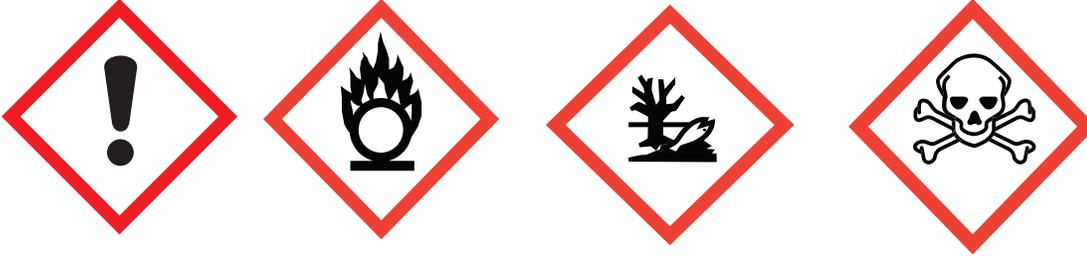
EMERGENCY OVERVIEW

OSHA Physical Hazards

GHS CLASSIFICATION

PHYSICAL HAZARDS: Oxidizer
Oxidizing solids(Category 3),
Acute toxicity, Oral(Category 3),
Eye irritation(Category 2A),
Short-term (acute) aquatic hazard(Category 1)

GHS Label elements, including precautionary statements



Signal Word: Danger
GHS03: Oxidizing
GHS07: Exclamation Mark
GHS06: Toxic
GHS09: Environmental hazard

Hazard Statements:

H301 - Toxic if swallowed.
H319 - Causes serious eye irritation.
H400 - Very toxic to aquatic life

Precautionary Statements:

Prevention
P210 - Keep away from heat.
P220 - Keep/Store away from clothing/ combustible materials.
P221 - Take any precaution to avoid mixing with combustibles.
P264 - Wash skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/ eye protection/ face protection.

Response

P301 + P310 + P330 - IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice/ attention.
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P391 - Collect spillage.

Storage

P405 - Store locked up.

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant.

SUMMARY OF ACUTE HAZARDS

Harmful if swallowed, inhaled or absorbed through skin. Causes irritation to skin, eyes and respiratory tract.

ROUTE OF EXPOSURE, SIGNS AND SYMPTOMS

INHALATION

Toxic. Causes irritation to the respiratory tract and systemic poisoning with symptoms paralleling ingestion.

EYE CONTACT

May cause irritation, redness and pain.

SKIN CONTACT

Causes irritation, redness and pain. May be absorbed through the skin causing systemic poisoning; symptoms may parallel ingestion.

INGESTION

Toxic. Can irritate the mouth, esophagus, stomach, etc. Excessive amounts affect the blood and blood vessels. Signs and symptoms of nitrite poisoning include intense cyanosis, nausea, dizziness, vomiting, collapse, spasms of abdominal pain, rapid heart beat, irregular breathing, coma, convulsions, and death due to circulatory collapse. Estimated lethal dose 1 to 2 grams.

SUMMARY OF CHRONIC HAZARDS

Repeated exposure through any route may cause symptoms similar to acute toxicity.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Individuals with pre-existing or chronic diseases of the eyes and respiratory system may have increased susceptibility to excessive exposure.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient:	Sodium Nitrite
Percentage by weight:	44.049
CAS#:	7632-00-0
EINEC#:	231-555-9
Ingredient:	Sodium Triphosphate
Percentage by weight:	23.52
CAS#:	7758-29-4
EINEC#:	231-838-7
Ingredient:	Sodium Metasilicate
Percentage by weight:	1.34
CAS#:	6834-92.0
EINEC#:	229-912-9
Ingredient:	Citric Acid
Percentage by weight:	3.36
CAS#:	77-92-9
EINEC#:	201-069-1

SECTION 4 - FIRST AID MEASURES

If INHALED	If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.
If on SKIN	Immediately wash with soap and water. Remove and wash any contaminated clothing.
If in EYES	Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.
If SWALLOWED	If swallowed, call a physician or poison control immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

Note: Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Increases the flammability of any combustible material.

EXTINGUISHING MEDIA

Non-combustible. Use agents appropriate for surrounding fires.

SPECIAL FIRE FIGHTING PROCEDURES:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Decomposition of sodium nitrite may leave a caustic residue.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Contact with oxidizable substances may cause extremely violent combustion. May explode when heated to 537 C (1000 F) or on severe impact or on contact with cyanides, ammonium salts, cellulose, lithium, potassium plus ammonia, and sodium thiosulfate.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Sweep up excess material to prevent footing hazard. Discard in trash.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage and moisture. Isolate from any source of heat or ignition. Avoid storage on wood floors. Separate from incompatibles, combustibles, organic or other readily oxidizable materials. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

OTHER PRECAUTIONS:

Avoid prolonged or repeated contact with skin or clothing.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient	Units
Sodium Nitrite	
ACGIH TLV	N/D
OSHA PEL	N/D
Sodium Triphosphate	
ACGIH TLV	N/D
OSHA PEL	N/D
Sodium Metasilicate	
ACGIH TLV	N/D
OSHA PEL	N/D

Citric Acid

ACGIH TLV N/D
OSHA PEL N/D

RESPIRATORY PROTECTION (SPECIFY TYPE): Normally none required. Use NIOSH/MSHA approved particulate respirator for nuisance dust.

VENTILATION - LOCAL EXHAUST: Acceptable

SPECIAL: N/A

MECHANICAL (GENERAL): Acceptable

OTHER: N/A

PROTECTIVE GLOVES: Wear rubber gloves.

EYE PROTECTION: Safety glasses (ANSI Z-87.1 or equivalent),

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls recommended

WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N/A

Specific Gravity (H₂O = 1): Solid

Vapor Pressure (mm Hg): N/A

Melting Point: N/A

Vapor Density (Air = 1): N/A

Evaporation Rate (Ethyl Acetate = 1): N/A

Appearance/Odor: Tablets / No distinct odor

Solubility In Water: Soluble

Flash Point: None

VOLATILE ORGANIC COMPOUNDS (VOC)

Content (Theoretical Percentage By Weight): 0% or (0 g/L)

NFPA AEROSOL LEVEL:

LOWER EXPLOSION LIMIT: N/D

UPPER EXPLOSION LIMIT: N/D

SECTION 10 - STABILITY AND REACTIVITY

Stability: This material is stable in closed containers at room temperature. Material slowly oxidizes to sodium nitrate when exposed to air. Very hygroscopic.

Conditions to Avoid: Heat, flame, ignition sources, shock, friction, incompatibles.

Incompatibility (Materials to Avoid): Reacts vigorously with reducing materials and is incompatible with many substances including ammonium salts, cellulose, cyanides, lithium, potassium plus ammonia, sodium thiosulfate, aminoguanide salts, butadiene, phthalic acid, phthalic anhydride, reductants, sodium amide, sodium disulphite, sodium thiocyanate, urea, wood and organic matter.

Hazardous Decomposition Products: Oxides of nitrogen.

Hazardous Polymerization: Will not occur.

SECTION 11 - TOXICOLOGY INFORMATION

CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Toxicology Data

Ingredient Name

Sodium Nitrite

Oral-Rat LD50: 85 mg/kg
Inhalation-Rat LC50: 5500 mg/m3

Sodium Triphosphate

Oral-Rat, LD50: 6500 mg/kg
Inhalation-Rat LCLo: N/D

Sodium Metasilicate

Oral-Rat LD50: 2000-3000 mg/kg
Inhalation-Rat LCLo: N/D

Citric Acid

Oral-Rat LD50: 3 g/kg
Inhalation-Rat LCLo: N/D

SECTION 12 - ECOLOGICAL INFORMATION

Ecological Data

Ingredient Name

Sodium Nitrite

Food Chain Concentration Potential None
WATERFOWL TOXICITY N/A
BOD None
AQUATIC TOXICITY 17.1 ppm/24 hr/minnow

Sodium Triphosphate

Food Chain Concentration Potential N/D
WATERFOWL TOXICITY N/D
BOD N/D
AQUATIC TOXICITY N/D

Sodium Metasilicate

Food Chain Concentration Potential None
WATERFOWL TOXICITY N/A
BOD None
AQUATIC TOXICITY 2320 ppm/96 hr/mosquito fish/TLm

Citric Acid

Food Chain Concentration Potential None
WATERFOWL TOXICITY N/A
BOD 40%
AQUATIC TOXICITY 894 ppm/4 hr/goldfish

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Classification: Non-regulated solid waste

Disposal Method: Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14 - TRANSPORTATION INFORMATION

DOT:	UN1479, Oxidizing substances, solid, n.o.s.,(Sodium Nitrite), Class 5.1, PGIII, LTD QTY, ERG#140
OCEAN (IMDG):	UN1479, Oxidizing substances, solid, n.o.s.,(Sodium Nitrite),Class 5.1, PGIII, LTD QTY, EMS-No: F-A, S-Q
AIR (IATA):	UN1479, Oxidizing substances, solid, n.o.s.,(Sodium Nitrite), Class 5.1, PGIII, LTD QTY, ERG#140

SECTION 15 - REGULATORY INFORMATION

Regulatory Data

Ingredient Name

Sodium Nitrite

SARA 313	Yes
TSCA Inventory	Yes
CERCLA RQ	100 lb.
RCRA Code	N/A

Sodium Triphosphate

SARA 313	No
TSCA Inventory	Yes
CERCLA RQ	N/A
RCRA Code	N/A

Sodium Metasilicate

SARA 313	No
TSCA Inventory	Yes
CERCLA RQ	N/A
RCRA Code	N/A

Citric Acid

SARA 313	No
TSCA Inventory	Yes
CERCLA RQ	N/A
RCRA Code	N/A

SECTION 16 - OTHER INFORMATION

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made. Consult RectorSeal for further information: (713) 263-8001