A CSW Industrials Company

SAFETY DATA SHEET

CALCI-FLUSH™

Water heater flush

Section 1 - Product and Company Information

Product name
Calci-flush

Product
Codes
68708

Chemical Family
Organic
Acids

Use
Scale Remover

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

Date of validation
March 13, 2023

Date of Preparation
March 13, 2023

HMIS Codes

Health	3
Flammability	1
Reactivity	0
PPI	D

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 Hazards
Corrosive to metals(Category 1), H290
Acute toxicity, Oral(Category 4), H302
Acute toxicity, Dermal(Category 4),
H312 Skin corrosion(Category 1B), H314
Serious eye damage(Category 1), H318
Specific target organ toxicity -single exposure(Category 3), Respiratory system,
H335 Short-term (acute) aquatic hazard (Category 2), H401

GHS CLASSIFICATION
Physical Hazards:
Corrosive to metals, Category 1

GHS Label elements, including precautionary statements


Signal Word: Danger

GHS05: Corrosive

GHS07: Exclamation Mark

Hazard Statements:

H290 - May be corrosive to metals.
H302 - Harmful if swallowed.
H312 - Harmful in contact with skin.
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.
H402 - Harmful to aquatic life.

Precautionary Statements (Prevention):

P234 - Keep only in original packaging.
P260 - Do not breathe dust or mist.
P264 - Wash with plenty of water and soap thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements (Response):

P310 - Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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 comfortable for breathing. P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.
P390 - Absorb spillage to prevent material damage.

Precautionary Statements (Storage):

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P406 - Store in a corrosion-resistant/··· container with a resistant inner liner.

Precautionary Statements (Disposal):

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

SUMMARY OF ACUTE HAZARDS

Exposure to human tissue will result in irritation and subsequent chemical burns, bronchitis, pulmonary edema and chemical pneumonitus.

INHALATION

Respiratory and mucous membrane irritation, coughing, difficulty breathing.

EYE CONTACT

Corrosive, causes eye burns.

SKIN CONTACT

Causes skin irritation. Prolonged contact may cause skin burns.

INGESTION

Burns on mouth and lips, sour acrid taste, severe gastrointestinal irritation, nausea, vomiting, bloody diarrhea, difficult swallowing, severe abdominal pains, thirst, acidemia, difficult breathing, convulsions, collapse, shock, possible death.

SUMMARY OF CHRONIC HAZARDS

Bronchitis, pulmonary edema and chemical burns, bronchitis and chemical pneumonitus; possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Skin disorders, eye problems, impaired liver and kidney, or respiratory function.

Section 3 - Composition/Information on Ingredients

Ingredient:	Methanesulfonic
Percentage by weight:	50.0 - 75.0%
CAS#:	75-75-2
EC#:	200-898-6

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 flush with large amounts of water; use soap if available. Remove contaminated clothing.
If in EYES	Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Call a physician immediately.
If SWALLOWED	If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Section 5 - Fire Fighting Measures

EXTINGUSING MEDIA

Use agents appropriate for surrounding fires.

SPECIAL FIRE FIGHTING PROCEDURES:

Wear self-contained breathing apparatus (SCBA) and other protective clothing. Hazardous decomposition products possible (see Section 10). Evacuate immediate area..

UNUSUAL FIRE AND EXPLOSION HAZARDS:

May release sulfur dioxide (SO2), sulfur trioxide (SO3), and ammonia gas (NH3) if involved in a fire.

Section 6 - Accidental Release Measures

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

Sweep up spillage and fl sh the area with large quantities of water. May be neutralized with sodium bicarbonate mixed with water.

Section 7 - Handling and Storage

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Prevent from absorption of moisture and possible caking. Should be stored in a cool and dry place. Do not store with cyanides, sulfides, chlorine, hypochlorous acid, or hypochlorites.

OTHER PRECAUTIONS:

Refrain from splashing product when pouring. Avoid all contact with skin or clothing. Empty containers may contain residues and vapors. KEEP OUT OF REACH OF CHILDREN.

Section 8 - Exposure Controls/Personal Protection

Ingredient	Units
Sulfamic Acid	
ACGIH TLV	N/D
OSHA PEL	N/D

RESPIRATORY PROTECTION (SPECIFY TYPE): In confined poorly ventilated areas, use NIOSH/MSHA approved air purifying or supplied air purifying or supplied air respirators..

VENTILATION - LOCAL EXHAUST: Acceptable

SPECIAL: N/A

MECHANICAL (GENERAL): Acceptable

OTHER: N/A

PROTECTIVE GLOVES: Wear acid resistant gloves (neoprene, PVC, butyl rubber).

EYE PROTECTION: Full-face shield and chemical splash goggles (ANSI Z-87.1 or equivalent).

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Acid resistant vinyl or polyethylene coated coveralls.

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:	275 F (135 C) @ 760 mm Hg
Specific Gravity ($H_20 = 1$):	1.35
Vapor Pressure (mm Hg):	N/A
Melting Point:	
	N/
D Vapor Density (Air = 1):	
	N/A
Evaporation Rate (Ethyl Acetate = 1):	N/A
Appearance/Odor:	Red liquid /
None Solubility In Water:	
	Soluble
Flash Point:	None
Lower Explosion Limit:	N/D
Upper Explosion Limit:	N/D

VOLATILE ORGANIC COMPOUNDS (VOC)
Content (Theoretical Percentage By Weight): 0% or (0 g/L)

Section 10 - Stability and Reactivity

Stability: Stable

Conditions to Avoid: Incompatible

Incompatibility (Materials to Avoid): Hazardous reaction in aqueous solution may occur with chlorine, hypochlorous acid, hypochlorites, cyanides, nitric acid, or sulfides. An explosion occurred when chlorine was being passed at room temperature into a reaction mixture which included sulfamic acid and water. It is suspected that nitrogen trichloride, a very sensitive explosive, was formed. Fuming nitric acid combined with sulfamic acid causes violent releases of nitrous oxide.

Hazardous Decomposition Products: Decomposes with heat (209C) to release sulfur dioxide (SO2), sulfur trioxide (SO3), nitrogen (N2), water (H2O), and ammonia gas (NH3).

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

Methanesulphonic acid

No data available.

Section 12 - Ecological Information

Ecological Data

Ingredient Name

Methanesulphonic acid

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

Section 13 - Disposal Considerations

Waste Classification: Corrosive(D002)

Disposal Method: Neutralization

RCRA classified hazardous waste. Dispose of absorbed materials and liquid waste in accordance with all local, state and federal regulations.

Section 14 - Transportation Information

DOT:	UN3265, Corrosive liquid, acidic, organic, n.o.s.(Methanesulphonic acid), Class 8, PGII, ERG#154
OCEAN (IMDG):	UN3265, Corrosive liquid, acidic, organic, n.o.s.(Methanesulphonic acid), Class 8, PGII, EMS-No: F-A, S-B
AIR (IATA):	UN3265, Corrosive liquid, acidic, organic, n.o.s.(Methanesulphonic acid), Class 8, PGII

Section 15 - Regulatory Information

Regulatory Data

Ingredient Name

Methyl Methanesulfonate

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

CALIFORNIA PROPOSITION 65

WARNING: This product can expose you to chemicals including Methyl Methanesulfonate, which is known to the State of California to cause cancer, and Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

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