

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: Tri-Circ
Product Code: 10409
Product Use: Mineral Deposit Remover
Supplier: Pace International, LLC
Address: 5661 Branch Road, Wapato, WA 98951
Phone Number: 800-936-6750 (Monday-Friday, 7:00 a.m. – 4:00 p.m.)
Medical Emergency Phone Number: 888-271-4649 (PROSAR)
Transportation Emergency Phone Number: 800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

Classification:

Physical, CORROSIVE Category 1
Acute Oral, Category 4
Acute Dermal, Category 4
Acute Inhalation, Category 4
Skin irritation, Category 1
Eye irritation, Category 1
Carcinogenicity, Category 2
Special Target Organ Toxicity, Single Exposure, Category 2
Acute Aquatic, Category 1

Hazard Symbols:



Hazard Statements:

DANGER
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.
H371 May cause damage to esophagus or gastrointestinal tract upon ingestion.
H400 Very toxic to aquatic life.

Precautionary Statements:

Prevention Statements:

P234 Keep only in original container.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear impermeable clothing, safety goggles or face shield and chemical resistant gloves.
P260 Do not breathe mists / vapours or spray.
P271 Use only outdoors or in a well-ventilated area.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P273 Avoid release to the environment.

Response Statements:

P390 Absorb spillage to prevent material damage.
P301/312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P330 Rinse mouth.
P302/352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatments see Section 4 First Aid Measures.
P362/364 Take off contaminated clothing and wash it before reuse.
P304/340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P301/330/331 IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P303/361/353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P310 Immediately call a POISON CENTER or doctor for medical advice.
P305/351/338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308/311/313 IF exposed or concerned: Call a POISON CENTER/doctor. Get medical advice/attention.
P391 Collect spillage.
Storage Statements:
P406 Store in corrosive resistant container with a resistant inner liner.
P405 Store locked up.
Disposal Statements:
P501 Dispose of contents/container should be made in accordance with applicable regional, national and local laws and regulations.



3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>CAS #</u>	<u>Concentration (w/w %)</u>
Hydrochloric Acid	7647-01-0	< 15 %
Phosphoric Acid	7664-38-2	< 10 %
Sulfuric Acid	7664-93-9	< 10 %
Citric Acid	77-92-9	< 7 %
Proprietary ingredients		Balance

4. FIRST AID MEASURES

General	Have the product container, label or Safety Data Sheet with you when calling a poison control center or physician, or going for treatment.
Advice:	
If on Skin:	Take off contaminated clothing. Wash skin with plenty of soap and water. If redness, burning, or irritation persists, get medical advice/attention. Wash contaminated clothing before reuse.
If in Eyes:	Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical advice/attention.
If Swallowed:	Call a poison control center or doctor for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
If Inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth, if possible.

5. FIRE FIGHTING MEASURES

Extinguishing Media:	Not flammable. Use any means suitable for extinguishing surrounding fire. Water spray may be used to keep fire exposed containers cool. Avoid spreading burning material with water.
Special Exposure Hazards:	None known.
Special Protective Equipment / Procedures for Firefighters:	Wear self-contained breathing equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wear impermeable clothing, safety goggles or face shield, and chemical resistant gloves.
Environmental Precautions:	In case of spill isolate area and deny entry to unnecessary personnel. Do not allow product to enter sewers, lakes, streams or other bodies of water.
Containment / Clean-Up Methods:	Stop spill at the source. Construct temporary dikes of dirt, sand, or other appropriate material to prevent spreading of the material. Neutralize with alkaline material then absorb with an inert material such as sand or vermiculite and place in an appropriate container for disposal.

7. HANDLING & STORAGE

Handling:	Avoid contact with skin and eyes. Good standards of hygiene should be maintained at all times. Smoking, eating, and drinking are prohibited in the work area. For personal protection wear impermeable clothing, safety goggles or face shield and chemical resistant gloves.
Storage:	Store in a cool, dry area at room temperature, and away from direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep container tightly closed when not in use. Keep out of reach of children and livestock. Store in locked location.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits: Hydrochloric Acid CAS# 7647-01-0
7 mg/m³ (5ppm) Ceiling, OSHA, NIOSH
2 ppm Ceiling, ACGIH
Phosphoric Acid CAS# 7664-38-2
1 mg/m³ (OSHA 8-hr PEL, Cal/OSHA, NIOSH REL, ACGIH TLV)
Sulfuric Acid CAS# 7664-93-9
1 mg/m³ ACGIH-TLV, OSHA-PEL
10 mg/m³ ACGIH-STEL
3 mg/m³ OSHA-STEL
Citric Acid CAS# 77-92-9
ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Engineering Controls: Local exhaust ventilation maybe necessary to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source. Provide mechanical ventilation for confined spaces.

Personal Protective Equipment :



Clothing: Wear impermeable clothing and chemical resistant gloves when handling.

Eye Protection: Chemical goggles or face shield recommended. Eye fountain and washing facilities should be present at work area.

Respiratory Protection: Not normally required. A NIOSH-approved respirator with organic vapor filter may be used in misty environments without proper ventilation.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical state:	Liquid		
Appearance:	Clear colorless liquid	Upper/Lower flammability limits:	Not available
Odor:	Sharp acidic	Vapor pressure:	Not available
Odor threshold:	Not available	Vapor density: (air =1)	Not available
pH:	1 – 2.5	Specific Gravity: (H₂O = 1)	1.115
Melting/Freezing point:	Not available	Solubility:	Miscible in water
Boiling point:	212°F (100°C)	Partition coefficient (n-octanol-water):	Not available
Flash point:	>200°F (93°C)	Auto-ignition temperature:	Not available
Evaporation rate:	Not available	Decomposition temperature:	Not available
Flammability (solid, gas):	Not applicable	Viscosity:	Not available

10. STABILITY & REACTIVITY

Reactivity hazards:	None known
Chemical stability:	Stable at ambient conditions
Conditions to avoid:	None known
Incompatible materials:	Strongly alkaline materials, finely powdered metals, cyanides, nitrogen compounds, alkali halides, oxidizing agents and reducing agents.
Hazardous decomposition products:	None known.



11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Acute Oral: LD ₅₀ (estimate): > 1400 mg/kg	Based on Ingredients
	Acute Dermal: LD ₅₀ (estimate): > 1500 mg/kg	Based on Ingredients
	Inhalation: LC ₅₀ (estimate): < 1 mg/L	Based on Ingredients
Skin corrosion/irritation:	Causes severe skin irritation or burns.	
Eye damage/irritation:	Causes serious eye irritation or damage upon direct contact. Permanent eye damage can occur.	
Respiratory/Skin sensitization:	No evidence of sensitization.	
Germ cell mutagenicity:	Not available	
Carcinogenicity:	Trace amounts of Naphthalene (CAS # 91-20-3) are known to the state of California to cause cancer.	
Reproductive toxicity:	Occasional workplace exposure is not expected to present a hazard.	
Target organ effects:	Ingestion or inhalation of this material will cause damage to tissues contacted. May cause pulmonary injury, mucous membranes and respiratory tract damage.	
Aspiration hazard:	Material does not present an aspiration hazard.	
Potential health effects:	CORROSIVE: May cause severe skin burns and eye damage.	

12. ECOLOGICAL INFORMATION

Toxicity:	LC ₅₀ (96-hr) fish: < 1 mg/L (estimate)	Based on Ingredients
	Acute Toxicity:	
	Western Mosquitofish	282mg/L (96hr)
	Mosquitofish	138mg/L (96hr)
	Mosquito fish	42mg/L (96hr)
	Daphnia Magna(Water Flea)	29mg/L (24hr)
	Fish	>0.1-1mg/L (96hr)
	Daphnia Magna(Water Flea)	>0.1-1mg/L (48hr)
Persistence/ degradability:	Not available	
Bioaccumulative potential:	Not available	
Mobility in soil:	Not available	
Other adverse effects:	Harmful to aquatic life.	

13. DISPOSAL CONSIDERATIONS

Disposal methods:	Recover or recycle if possible. Do not discharge into sewers, lakes, streams, or other bodies of water. Disposal should be made in accordance with applicable regional, national and local laws and regulations. Consult appropriate regulatory officials for information on disposal, keeping in mind that local regulations may be more stringent than regional or national requirements.
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14. TRANSPORT INFORMATION

	<u>DOT</u>	<u>IMDG</u>	<u>IATA</u>
UN number:	UN 3264	Not applicable	Not applicable
Proper shipping name:	Corrosive liquid, acidic, inorganic, n.o.s. (phosphoric & hydrochloric acids)	Not regulated	Not regulated
Hazard class(es):	8	Not applicable	Not applicable
Packing group:	II	Not applicable	Not applicable
Marine Pollutant:	Not applicable		
Special precautions:	None		



15. REGULATORY INFORMATION

CA Prop. 65	This product may contain trace amounts of Naphthalene (CAS # 91-20-3), Sulfuric Acid (CAS#7664-93-9) is a known chemical to the State of California to cause cancer.
SARA 313:	The components of this product are subject to the reporting requirements for Section 302,304 and 313 of Title III of the Superfund Amendments and Reauthorization Act. Sulfuric Acid CAS# 7664-93-9, Hydrochloric Acid CAS# 7647-01-0.
TSCA:	All components of this product are included or exempt from inclusion in EPA's Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
WHMIS:	This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.
Clean Water Act:	Naphthalene CAS#91-20-3 and Hydrochloric Acid CAS# 7647-01-0 are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61)

16. OTHER INFORMATION

HMIS Ratings:

Health – 2

Flammability – 0

Reactivity – 0

NFPA Ratings:



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This Safety Data Sheet (SDS) may provide more information than the product label but does not replace or modify the product labeling (attached to and accompanying the product container). The product SDS and the product label both provide consistent and important health, safety, and environmental information as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). This requirement covers employers, employees, emergency responders, users and others handling the product. All necessary hazard classification and appropriate precautionary, use, storage, and disposal information is set forth on the labeling and the SDS.

SDS preparation date: May 26, 2015

Replaces MSDS dated: December 12, 2012

Changes since last revision: New format to SDS

