

**Material Safety Data Sheet
RAMCHARGER DRAIN OPENER**

CHEMCO INC
3083 Aukele St, Suite 102
Lihue, HI 96766
(808) 245-2250

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EMERGENCY#800-535-5053

SECTION I - IDENTIFICATION

PRODUCT NAME:..... RAMCHARGER DRAIN OPENER
CHEMICAL FAMILY:..... Sulfuric Acid
SYNONYMS:..... Oil of Vitriol-Oleum
FORMULA:..... H2SO4

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENT	PERCENT	CAS NUMBER	OSHA	ACGIH
Sulfuric Acid	86-93%	7664-93-9	1.00 mg/m3	1.00 (TWA) 3.00(STEL)
Water	7.0-14.0%	7732-18-5	N/A	N/A

NFPA	Hazard Rating	Scale
Health	3	4=Extreme
Fire	0	3=High
Reactivity	2	2=Moderate
Special	W	1=Slight 0=Insignificant

*NA=Not Applicable

SECTION III - PHYSICAL DATA

APPEARANCE:..... Extremely slippery clear viscous liquid.
..... Odorless to sharp pungent.
BOILING POINT:..... 260-538 F.
VAPOR DENSITY(Air=1):..... 3.4
SPECIFIC GRAVITY (H2O=1):..... 1.78-1.84
EVAPORATION RATE:..... <1
SOLUBILITY IN WATER:..... 100%
PERCENT VOLATILES BY VOLUME:.....Negligible

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT:..... None to boiling
EXTINGUISHING MEDIA:..... Avoid using water, if possible. If involved in a fire, the use of dry chemical or CO2 is recommended
SPECIAL FIRE FIGHTING PROCEDURES:..... Wear appropriate protective equipment including respiratory protection as conditions warrant. Stop spill/release if it can be done without risk. Move undamaged containers from fire area if it can be done without risk. Water spray may be useful in minimizing or dispersing vapors and cooling equipment exposed to heat and flame. Fires involving small amounts of

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combustibles maybe smothered with suitable dry chemicals. Use water on combustibles burning but avoid use of water directly on acid as it results in evolution of heat and causes splattering.

UNUSUAL FIRE AND EXPLOSION HAZARDS:.... This material will not burn, but if involved in a fire may release hazardous oxides of sulfur. This material may ignite combustibles. Attacks many common metals (especially when diluted) releasing hydrogen, a flammable gas. Closed containers exposed to extreme heat may rupture due to pressure build-up. Vapors are heavier than air & may accumulate in low area

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**SECTION V - REACTIVITY DATA**  
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STABILITY: Stable under normal conditions of storage and handling.

CONDITIONS AFFECTING REACTIVITY: Water reactive material, generating heat upon contact. Heat will increase overall reactivity.

INCOMPATIBLE MATERIALS: Highly reactive and capable of igniting finely divided combustible materials, particularly carbides, chlorates, fulminates, nitrates, picrates, powdered metals and other combustible materials. Contact with hypochlorates (e.g. Chlorine Beach), sulfides or cyanides will produce toxic gases. Reacts violently with water, alkaline materials or organic materials with evolution of heat. Attacks many metals, releasing hydrogen gas.

HAZARDOUS DECOMPOSITION PRODUCTS (INCLUDING COMBUSTION PRODUCTS):

Material will not burn but if involved in a fire may generate oxides of sulfur. Decomposes to water and sulfur trioxide above 644 F.

HAZARDOUS POLYMERIZATION: None known

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**SECTION VI - HEALTH DATA**  
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EFFECTS OF OVER-EXPOSURE:

EYES: This causes severe burns of the eyes. Direct contact with the liquid or exposure to vapors or mists may cause stinging, tearing, redness, swelling, corneal damage and irreversible eye damage.

SKIN: This material causes severe burns of the skin. Direct contact or exposure to vapors or mists can be severely irritating to the skin and may result in redness, swelling, burns and severe skin damage. Persons with preexisting skin disorders may be more susceptible to the effects of this material.

INHALATION: Breathing vapors or mists may cause severe irritation and burns of the nose, throat, respiratory tract, coughing, pneumonitis (inflammation of the lungs), pulmonary edema (accumulation of fluid in the lungs) and chest pain. Respiratory symptoms associated with preexisting lung disorders (e.g. asthma-like conditions), may be aggravated by exposure to this material.

INGESTION: This material may be harmful or fatal if swallowed. Ingestion may result in severe irritation and burns of the mouth, throat and digestive tract, nausea, vomiting, abdominal pain and perforation of the stomach.

COMMENTS: This material has not been identified as a carcinogen by NTP, IARC or OSHA. Prolonged and repeated exposure to acid mists may cause erosion of the teeth

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SECTION VII - FIRST AID  
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BREATHING (INHALATION): Immediately move victim away from exposure and into fresh air. If respiratory symptoms or other symptoms of exposure develop, seek medical attention. If victim is not breathing, immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

SWALLOWING (INGESTION): DO NOT INDUCE VOMITING - CORROSIVE MATERIAL. If victim has any breathing difficulties, call for emergency help immediately. If victim is conscious and alert, immediately rinse mouth with water and dilute the ingested material by giving one glass of milk or water to drink. Call a physician or poison center. If possible, do not leave victim unattended.

EYES: Immediately move victim away from exposure and into fresh air. If irritation or redness develops, flush eyes with clean water and seek immediate medical attention. For direct contact, immediately hold eyelids apart and flush affected eye(s) with clean water for at least 30 minutes. Seek immediate medical attention.

SKIN (DERMAL): Immediately flush the affected area(s) with large amounts of water while removing contaminated shoes, clothing and constrictive jewelry. If skin surface is damaged, apply a clean dressing and seek immediate medical attention. If skin surface is not damaged, cleanse the affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develop, seek immediate medical attention.

NOTE TO PHYSICIANS: Late complications of acid may produce esophageal, gastric and pyloric structuring and senosis which may require surgical repair.

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SECTION VIII - EMPLOYEE PROTECTION  
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VENTILATION & ENGINEERING CONTROLS: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional ventilation or exhaust systems may be required.

RESPIRATORY PROTECTION: If airborne concentrations exceed established exposure limits, use a powered air purifying respirator with HEPA Filter or supplied air respirator. Do not use a chemical cartridge respirator.

PROTECTIVE EQUIPMENT: The use of gloves impermeable to the specific material handled is advised to prevent skin contact, possible irritation and skin damage. Approved eye protection to safeguard against potential eye contact, irritation or injury is recommended.

RECOMMENDED PERSONAL HYGIENE: Impervious clothing should be worn as needed. Eye wash and quick drench shower facilities should be available in the work area. Thoroughly clean shoes and wash contaminated clothing before reuse.

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SECTION IX - SPILL AND DISPOSAL DATA

SPILL: Stay upwind and away from spill/release. Isolate hazard area and limit entry to authorized personnel. Stop spill/release if it can be done without risk. Wear appropriate protective equipment including respiratory protection as conditions warrant. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled materials may be absorbed into an appropriate absorbent material. Use water sparingly to reduce disposal requirements. **NOTE:** Sulfuric acid is extremely slippery. Keep combustibles (wood, paper, oil) away from spilled material. Dike and recover freestanding product. Take up with sand or other inert noncombustible material and place in sealable containers. Notify appropriate Federal, State and Local agencies. Immediate cleanup of any spill is recommended.

EPA REPORTABLE QUANTITY: Sulfuric Acid 1,000 lbs., equivalent to 1,010 - 1,080 lbs. (66-71 gals) of this product depending on concentration.

WASTE DISPOSAL: Dispose of product in accordance with Local, State and Federal regulations.

HIGHWAY OR RAILWAY SPILLS

Continental U.S. (800) 424-9300

Alaska & Hawaii (202) 483-8616

SECTION X - HANDLING AND STORAGE

STORAGE AND HANDLING: Use this material in cool, dry, well ventilated areas. Keep containers closed. Store only in approved containers. Keep away from incompatible materials. Protect containers against physical damage. Do not enter confined spaces such as tanks or pits without following entry procedures such as ASTM D-4276. The use of respiratory protection is advised when concentrations exceed any established exposure limits. Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Use good personal hygiene practice. Protect contains from physical damage and exposure to metal.

MIXING: Sulfuric acid is corrosive to most metals. Separate from carbides, chlorates, fulminates, nitrates, picrates, powdered metals and combustible materials. Keep away from strong oxidizing agents including oxygen and chlorine. This product has a great affinity for water, abstracting it from the air and also from organic substances; hence it will char wood and etc... When diluting, the acid should be added to the diluent.

DOT PROPER SHIPPING NAME: UN1830, SULFURIC ACID, 8.0, II

DOT HAZARD CLASSIFICATION: 8 (CORROSIVE MATERIAL)

I.D. NUMBER: UN 1830

PG (Packing Group) PGII

TRANSPORTATION EMERGENCIES: Continental USA (800) 424-9300

..... Alaska & Hawaii (Collect) (202) 483-7616