

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Regular Decalcifier  
**SYNONYMS:** Regular Cal, Gentle Decalcifier  
**CATALOG CODES:** VSD  
**MANUFACTURER:** Volu-Sol  
**ADDRESS:** 5095 West 2100 South  
 Salt Lake City, UT 84120

**EMERGENCY PHONE:** (800) 535-5053  
**OTHER CALLS:** (801) 974-9474  
**FAX:** (801) 974-9553

**CHEMICAL FAMILY:** -  
**CHEMICAL FORMULA:** -  
**PREPARED BY:** Volu-Sol

**RECOMMENDED USE:** Laboratory chemical

**RESTRICTIONS ON USE:** Use as recommended

## SECTION 2: HAZARD(S) IDENTIFICATION

## EMERGENCY OVERVIEW:

**GHS Classification:** Flammable Liquids (Category 4)  
 Skin Corrosion (Category 1A)  
 Serious Eye Damage (Category 1)

## GHS LABEL ELEMENTS:

**Pictogram:**   
**Signal Word:** Danger

**Hazard Statement(s):**

H227 Combustible liquid  
 H314 Causes severe skin burns and eye damage  
 H318 Causes serious eye damage

**Precautionary Statement(s):**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking  
 P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray  
 P264 Wash skin thoroughly after handling  
 P280 Wear protective gloves/ eye protection/ face protection  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 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  
 P310 Immediately call a POISON CENTER or doctor/physician  
 P321 Specific treatment (see supplemental first aid instructions on this label)  
 P363 Wash contaminated clothing before reuse  
 P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction  
 P403+P235 Store in a well-ventilated place. Keep cool  
 P405 Store locked up  
 P501 Dispose of contents/container to an approved waste disposal plant

**OTHER HAZARDS:** -

**HMIS Classification:**

**Health hazard:** 3  
**Chronic health hazard:** -  
**Flammability:** 0  
**Physical hazards:** 0

**NFPA Rating:**

**Health hazard:** 3  
**Fire:** 0  
**Reactivity Hazard:** 0

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO. EC-NO. Index-NO.
Formic Acid (10-30%)	64-18-6 200-579-1 607-001-00-0

## SECTION 4: FIRST AID MEASURES

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician

**INGESTION:** If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

**SKIN:** Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician

**EYE:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital

## SECTION 5: FIRE-FIGHTING MEASURES

**FLAMMABLE LIMITS IN AIR:** **Percentage by Volume**  
 Upper: -%  
 Lower: -%

**FLASH POINT:** -

**AUTOIGNITION TEMPERATURE:** -

**EXTINGUISHING MEDIA:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

**FIRE FIGHTING PROCEDURES:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode

**FIRE AND EXPLOSION HAZARDS:** Use water spray to cool unopened containers

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**ACCIDENTAL RELEASE MEASURES:** Use personal protective equipment. Avoid breathing vapours, mist, or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations. Dispose of in accordance with local regulations. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The number to contact the US Coast Guard National Response Center is (800) 424-8802

## SECTION 7: HANDLING AND STORAGE

**HANDLING AND STORAGE:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Vent periodically. Handle and open container with care. Hygroscopic. Refrigerate before opening. No smoking

**INCOMPATIBILITIES:** Strong oxidizing agents, strong bases, powdered metals

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**EXPOSURE LIMITS:** Reported in a time-weighted average (TWA)

Component	CAS-No.	Reference	OSHA		ACGIH	
			ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Formic Acid	64-18-6		5	9	5	9
			PEL	PEL	TLV	TLV

**VENTILATION SYSTEM:** Local and/or general exhaust is recommended to keep exposure below limits. Local exhaust ventilation is preferred for control of the emissions at its source, preventing dispersion into the general work area. Please refer to the ACGIH document, *Industrial Ventilation: A Manual of Recommended Practices*, for details

**PERSONAL RESPIRATORS:** If exposure limit is exceeded and engineering controls are not feasible, a half-face organic vapour respirator may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier; whichever is lowest. A full-face piece organic vapour respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face, positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres

**SKIN PROTECTION:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands

**EYE PROTECTION:** Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Maintain eye wash fountain and quick-drench facilities in work area

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE:** liquid  
**ODOR:** -  
**SOLUBILITY:** -  
**pH:** -  
**BOILING POINT:** -  
**MELTING POINT:** -  
**VAPOR PRESSURE:** -  
**SPECIFIC GRAVITY:** -  
**MOLECULAR WEIGHT:** -  
**DENSITY:** -  
**VISCOSITY:** -  
**REFRACTIVE INDEX:** -

**SECTION 10: STABILITY AND REACTIVITY**

**CHEMICAL STABILITY:** Stable under recommended conditions of use and storage  
**CONDITIONS TO AVOID:** Heat, flames, ignition sources  
**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** No data available

**SECTION 11: TOXICOLOGICAL INFORMATION**

**TOXICOLOGICAL INFORMATION:**  
**Acute Toxicity:** No data available  
**Skin/Eye Irritation:** No data available  
**Carcinogenicity:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen  
**ROUTES OF ENTRY:** Inhalation/Ingestion/Skin

**SECTION 12: ECOLOGICAL INFORMATION**

**ECOLOGICAL INFORMATION:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal  
**Toxicity:** No data available  
**Persistence and degradability:** No data available  
**Mobility in soil:** No data available  
**PBT/vPvB Results:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**SECTION 13: DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL METHOD:** Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is combustible. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in an 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. Dispose of as unused product

**SECTION 14: TRANSPORT INFORMATION**

US DOT	IATA	IMDG/IMO
Shipping Name: Formic Acid Solution	Shipping Name: Formic Acid Solution	Shipping Name: Formic Acid Solution
Hazard Class: 8	Hazard Class: 8	Hazard Class: 8
UN Number: 3412	UN Number: 3412	UN Number: 3412
Packing Group: II	Packing Group: II	Packing Group: II

**SECTION 15: REGULATORY INFORMATION**

<b>SARA 302</b>	-
<b>SARA 313</b>	64-18-6
<b>SARA 311/312 Hazards</b>	Acute Health Hazard, Chronic Health Hazard
<b>State</b>	Right to know lists: MA: 64-18-6 PA: 6132-04-3, 64-18-6, 7732-18-5 NJ: 6132-04-3, 64-18-6, 7732-18-5 California Prop. 65 Components:

**SECTION 16: OTHER INFORMATION**

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