

MATERIAL SAFETY DATA SHEET

SAMIRIAN CHEMICALS INC.

Section I - Chemical Product And Company Identification

Company Name:	SAMIRIAN CHEMICALS INC.		
Address:	6203 San Ignacio Ave., Suite 210 San Jose, CA 95119		
Telephone:	(408) 224-3399		
Chemical Name:	OXALIC ACID, DIHYDRATE (C ₂ H ₂ O ₄ ·2H ₂ O)		
Synonyms:	ETHANEDIOIC ACID, DIHYDRATE; ETHANEDIONIC ACID		
Chemical Family:	CARBOXYLIC ACID		
CAS Number:	6153-56-6		
Emergency Telephone:	(800) 424-9300 CHEMTREC		
Date Prepared:	NOVEMBER 16, 1992	Revised: JUNE 22, 1999	

Section II - Composition/ Information on Ingredients

<u>Components</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OTHER LIMITS</u>
OXALIC ACID, DIHYDRATE	TWA 1 mg/m ³ STEL 2 mg/m ³	TWA 1 mg/m ³ STEL 2 mg/m ³	-- --

Section III - Hazards Identification

<p>LABEL PRECAUTIONARY STATEMENTS</p> <p>HARMFUL IN CONTACT WITH SKIN, EYES. IN CASE OF CONTACT RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK IMMEDIATE MEDICAL ADVICE. DO NOT BREATHE DUST. TARGET ORGAN (S): KIDNEYS, NERVES.</p>

Section IV - First Aid Measures

Emergency and First Aid Procedures:

SEEK IMMEDIATE MEDICAL ATTENTION FOR ALL CASES OF OVEREXPOSURE

Eye Contact: IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.

Skin Contact: IMMEDIATELY WASH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. WASH CLOTHING BEFORE RE-USE.

Inhalation: REMOVE THE VICTIM TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION.

Ingestion: IF SWALLOWED, DO NOT INDUCE VOMITING. IF CONSCIOUS, DRINK, WATER, MILK, OR MILK OF MAGNESIA. SEEK IMMEDIATE MEDICAL ATTENTION.

Section V - Fire Fighting Measures

Flash Point (Method Used): NOT FLAMMABLE.

Flammable Limits: N/A **LEL:** N/A **UEL:** N/A

Extinguishing Media:

CARBON DIOXIDE, DRY CHEMICAL POWDER, APPROPRIATE FOAM.

Special Fire Fighting Procedures:

FIREFIGHTERS SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

Fire and Explosion Hazards:

MODERATE FIRE AND EXPLOSION HAZARD.

THERMAL DECOMPOSITION PRODUCES HIGHLY TOXIC FUMES.

Section VI - Accidental Release Measures

Steps to Be Taken in Case Material Is Released or Spilled:

WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING. AVOID BREATHING DUST. SWEEP THE SPILLAGE WITH A BROOM CAREFULLY PLACE MATERIAL INTO A DRY WASTE CONTAINER. AVOID CONTACT WITH WATER.

Waste Disposal Method:

FOLLOW FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS FOR PROPER DISPOSAL.

Other Precautions:

AVOID EXCESSIVE HEAT. WASH HANDS BEFORE/AFTER HANDLING. CLEAN AREA AFTER HANDLING.

Section VII - Handling and Storage

Precautions to Be Taken in Handling and Storing:

AVOID GENERATING DUST. AVOID SKIN OR EYE CONTACT. AVOID CONTACT WITH METALS. STORE IN A COOL, DRY, CORROSION PROOF AREA AWAY FROM OXIDIZERS. KEEP CONTAINER TIGHTLY CLOSED.

Section VIII - Exposure Controls/ Personal Protection

Respiratory Protection (Specify Type):

NIOSH/MSHA APPROVED RESPIRATOR WITH PARTICULATE FILTER.

Ventilation

Local Exhaust: YES **Special:** NONE

Mechanical (General): YES **Other:** NONE

Protective Gloves: NEOPRENE OR PVC GLOVES.

Eye Protection: SAFETY GOGGLES.

Other Protective Clothing or Equipment: NEOPRENE OR PVC APRON AND HARD HAT.

Work/Hygienic Practices:

WASH FACE AND HANDS THOROUGHLY WITH SOAP AND WATER BEFORE EATING, DRINKING OR SMOKING.

Section IX - Physical/Chemical Characteristics

Specific Gravity (H₂O = 1): 1.653

Melting Point: 101.5 °C

Boiling Point: N/A

Vapor Pressure (mm Hg): < 0.01 MM HG AT 20 °C.

Vapor Density (Air = 1): 4.4

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

Solubility in Water: 14 GRAMS PER 100 ML OF WATER AT 25 °C.

168 GRAMS PER 100 ML OF WATER AT 80 °C.

Appearance and Odor: WHITE CRYSTALS WITH SLIGHT ODOR.

Section X - Stability and Reactivity

Stability: STABLE.

Conditions to Avoid: EXTREME HEAT.

Incompatibility (Materials to Avoid):

STRONG OXIDIZERS, STRONG BASES, FURFURYL ALCOHOL, SILVER AND SILVER COMPOUNDS, SODIUM CHLORATE, SODIUM CHLORITE.

Hazardous Decomposition or By-product:

THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE, AND FORMIC ACID

Hazardous Polymerization: WILL NOT OCCUR.

Conditions to Avoid: NONE DOCUMENTED

Route(s) of Entry:	<u>Inhalation?</u>	<u>Ingestion?</u>	<u>Skin?</u>	<u>Eyes?</u>
	YES	YES	YES	YES

Health Hazards (Acute and Chronic):

ACUTE: SKIN AND EYE IRRITANT. MAY BE FATAL IF INGESTED OR INHALED.

CHRONIC: EYE AND RESPIRATORY TRACT IRRITATION, KIDNEY DAMAGE

GASTROINTESTINAL DISTURBANCES, GRADUAL LOSS OF WEIGHT, SKIN

ULCERATION.

Carcinogeny:	<u>NTP?</u>	<u>IARC?</u>	<u>OSHA?</u>
	N/A	N/A	N/A

Signs and Symptoms of Exposure:

SKIN AND EYE CONTACT CAUSE IRRITATION OR CORROSION OF THE AFFECTED AREA. INHALATION AND INGESTION CAUSE CORROSION, DIFFICULT BREATHING, NAUSEA OR LOSS OF CONSCIOUSNESS. INGESTION AT A LARGE DOSE CAN BE FATAL.

Medical Conditions Generally Aggravated by Exposure: KIDNEY DAMAGE, ALBUMINURIA, RESPIRATORY CONDITION.

Section XI - Toxicological Information

Health Hazards:

Acute Effects:

MATERIAL IS EXTREMELY HARMFUL TO MUCOUS MEMBRANES TISSUE AND UPPER RESPIRATORY TRACT, EYES AND SKIN.

Chronic Effects:

POSSIBLE RISK OF CONGENITAL MALFORMATION IN THE FETUS.
TARGET ORGANS: NERVES, KIDNEYS, BLOOD, EYES.

Signs and Symptoms of Exposure:

IRRITATION TO NOSE, THROAT, AND SKIN. CAUSES EYE BURNS. COUGHING, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND VOMITING.

Toxicity Data:

ORL-RAT LD50: 375 MG/KG

Section XII - Ecological Information

DATA NOT YET AVAILABLE.

Section XIII - Disposal Considerations

DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

Section XIV - Transport Information

PLEASE CONTACT SAMIRIAN CHEMICALS FOR TRANSPORTATION INFORMATION.

Section XV - Regulatory Information

TSCA (TOXIC SUBSTANCE CONTROL ACT): This product is listed on the TSCA inventory.

SARA TITLE III INFORMATION:

Section 302 Extremely Hazardous Substance:	Unlisted
Section 313 Toxic Chemicals:	Unlisted

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