

Material Safety Data Sheet

#702

SECTION I — IDENTITY AND MANUFACTURER'S INFORMATION

Manufacturer's Name **HILLYARD CHEMICAL COMPANY** Product Name **FORMULA 777**
Address **302 North Fourth Street** Date Prepared **January 8, 1987**
St. Joseph, MO 64502

Emergency Telephone No. **(816) 233-1321** Prepared by **Regulatory Affairs Department**
And Other Information Calls

SECTION II — HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components (Specific Chemical Identity: Common Name(s))	CAS #'s	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (Optional)
Oxalic acid	144-62-7	1 mg/M³	1 mg/M³	N/A	45-55

SECTION III — PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	N/A	Specific Gravity (H ₂ O = 1)	1.5-1.9
Vapor Pressure (mm Hg.)	N/A	Percent Volatile By Volume (%)	N/A
Vapor Density (AIR = 1)	N/A	Evaporation Rate	N/A
Solubility in Water	appreciable	Appearance and Odor	colorless, odorless white crystals

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used) **N/A -- solid** Flammable Limits **N/A** LEL **N/A** UEL **N/A**
Extinguishing Media **Water spray, dry chemical, alcohol foam or CO₂. Foam or water on molten oxalic acid may cause frothing. Use water to keep fire-exposed container cool. Combustible solid below 215°F.**
Special Fire Fighting Procedures **Sublimes with partial decomposition at 300-320°F emitting toxic and irritating fumes of CO and formic acid.**
Unusual Fire and Explosion Hazards **Firefighters should use self-contained breathing apparatus, protective clothing and eye protection.**

SECTION V — PHYSICAL HAZARDS

Stability ☒ Unstable ☐ Stable ☐ Conditions to Avoid **Stable at room temperature.**
Incompatibility (Materials to Avoid) **Reacts with concentrated sulfuric acid to give CO, CO₂ and H₂O. Reacts vigorously with alkalis; reacts explosively with chlorites & hypochlorites**
Hazardous Decomposition Products Or Byproducts **Will react violently with furfuryl alcohol. Reacts with some silver compounds to form explosive silver oxalate.**

Hazardous Polymerization ☐ May Occur ☒ Will Not Occur ☐ Conditions To Avoid **N/A**

SECTION VI — HEALTH HAZARD DATA

Route(s) of Entry: Inhalation? ☒ yes Skin? ☒ yes Ingestion? ☒ yes

Health Hazards (1. Acute and 2. Chronic)

1. Dust/mist may cause irritation of mucous membranes.

2. Chronic exposure may cause inflammation of upper respiratory tract. Skin, eyes and mucous membrane contact with dust/mist has corrosive effect. Prolonged skin contact: dermatitis, cyanosis of fingers, discoloration of fingernails and possible ulceration.

Chemical Listed as Carcinogen or Potential Carcinogen

National Toxicology Program

Yes ☐
No ☒I.A.R.C.
MonographsYes ☐
No ☒

OSHA

Yes ☐
No ☒

Signs and Symptoms of Exposure

Ingestion of conc. solution produces burns, nausea, severe gastroenteritis, shock and convulsions. Ingestion of 5 gm of oxalic acid has caused death within hours. Diluted solution can cause gastrointestinal injury, muscle twitching, cramps or c.n.s. depression.

Medical Conditions

Generally Aggravated by Exposure

Hypocalcemia due to affinity of oxalic acid for calcium.

Emergency and First Aid Procedures

Eye contact: immediately flush with water for 15 minutes, including under eyelids. Skin contact: wash with soap and water. Inhalation: remove to fresh air. Rinse mouth. Ingestion: GET MEDICAL ATTENTION IMMEDIATELY. Give large quantity of water or milk. For skin or eye contact get medical attention.

SECTION VII — PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled

Notify safety personnel, provide adequate ventilation and avoid dusting. Use protective equipment. Carefully scoop up solid for recovery or disposal. Thoroughly neutralize liquid spills or residual solids with sodium bicarbonate. Flush neutralized material to holding area for lime treatment.

Waste Disposal Method

Do not dispose of in storm drains. Neutralize to form insoluble calcium oxalate. Incinerate neutralized material in approved incinerator or dispose of in state, federal or local approved landfill. Follow federal, state and local regulations on disposal.

Precautions To Be Taken In Handling And Storing

Do not get in eyes, on skin or clothing. Avoid breathing dust. Do not wear contact lenses when working with substance.

Other Precautions

Incompatible with strong oxidizers.

SECTION VIII — CONTROL MEASURES* when dust or mist is 1 to 50 mg/M³

Respiratory Protection (Specify Type)

Dust respirator in large usage recommended

Ventilation

Local Exhaust Use if working with General)

* Special Use high efficiency particulate respirator

Other

N/A

Protective Gloves

impervious

Eye Protection

safety goggles

Other Protective Clothing Or Equipment

impervious

Work/Hygienic Practices

Do not eat or smoke near areas of use. Always wash hands after working with oxalic acid.

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