

SECTION 8. Exposure controls/personal protection

8.1 Occupational exposure limits

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene glycol	Ceiling [] ppm	(Vacate) Ceiling [] ppm (Vacate) Ceiling [] ppm	

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Ethylene glycol	Ceiling [] ppm Ceiling [] ppm	Ceiling [] ppm	CEV. [] ppm

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eyeface protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134. European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Control of environmental exposure

Should not be released into the environment. See Section 12 for additional ecological information.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Viscous liquid.
Appearance	No information available.
Odor	Odorless.
Odor Thresh	No information available.
pH	5.5-7.5 50% aq. sol
Melting Point/Range	-13 C / 8.6 F
Boiling Point/Range	196 - 198 C / 384.8 - 388.4 F 760 mmHg
Flash Point	116 C / 240.8 F
Evaporation Rate	No information available.
Flammability (solid, gas)	No information available.
Flammability or explosive limit	
	Upper : 15.3 vol
	Lower : 3.2 vol

Vapor Pressure	Not available.
Vapor Density	Not applicable.
Density	10.329 lb/gal
Solubility	Soluble in water.
Partition coefficient; n-octanol/water	Not available.
Autoignition Temp	1850 °F (1010 °C)
Decomposition Temp	Not available.
Viscosity	Not available.
Molecular Formula	C6H8O7
Molecular Weight	192.13
VOC Content(%)	Not available.
Oxidizing properties	Not oxidizing.

9.2 Other safety information

None.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Keep away from heat, flame, spark and other ignition sources. Keep away from incompatible materials.

10.5 Incompatible materials

Metals, nitrites, oxidizing agents, reducing agents, strong bases.

10.6 Hazardous decomposition products

Carbon dioxide and carbon monoxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Citric acid	5040 mg/kg (Mouse) 6730 mg/kg (Rat)	Not listed	Not listed

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Serious eye damage/eye irritation.

Respiratory or skin sensitization

Not classified.

Germ cell mutagenicity

Not classified.

Carcinogenicity

Not classified.

Reproductive toxicity

Not classified.

Specific target organ toxicity - single exposure

Not classified.

Specific target organ toxicity - repeated exposure

Not classified.

Aspiration hazard

Not classified.

Chronic effects

No information available.

11.2 Additional information

None.

SECTION 12. Ecological information**12.1 Toxicity**

Ecotoxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2 Persistence and Degradability

No information available.

12.3 Bioaccumulative Potential

No information available.

12.4 Mobility in Soil

No information available.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

No data available.

12.7 Other adverse effects

No additional information available.

SECTION 13. Disposal considerations

13.1 Waste Disposal Methods

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Hazardous Waste Code - D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]. The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

SECTION 14: Transport information

DOT

UN-No Not Regulated
Proper Shipping Name
Hazard Class
Subsidiary Hazard Class
Packing Group

IATA

UN-No Not Regulated.
Proper Shipping Name
Hazard Class
Subsidiary Hazard Class
Packing Group

IMDG/IMO

UN-No Not Regulated.
Proper Shipping Name
Hazard Class
Subsidiary Hazard Class
Packing Group

TDG

UN-No Not Regulated.
Proper Shipping Name
Hazard Class
Subsidiary Hazard Class
Packing Group

SECTION 15: Regulatory information

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

