CITRANOX MSDS

Section 1	:	MANUFACTURER INFORMATION	
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Supplier: Same as manufacturer.

Manufacturer: Alconox, Inc. 30 Glenn St. Suite 309 White Plains, NY 10603.

Manufacturer emergency 800-255-3924. phone number: 813-248-0585 (outside of the United States). Manufacturer: Alconox, Inc. 30 Glenn St. Suite 309 White Plains, NY 10603.

Supplier MSDS date: 2005/03/14

D.O.T. Classification: Not regulated.

Section 2 : HAZARDOUS INGREDIENTS

C.A.S.	CONCENTRATION %	Ingredient Name	T.L.V.	LD/50	LC/50
77-92-9	10-30	CITRIC ACID	NOT AVAILABLE	3000 MG/KG RAT ORAL 5040 MG/KG MOUSE ORAL	NOT AVAILABLE

Section 3	: PHYSICAL / CHEMICAL CHARACTERISTICS
Physical state:	Liquid.
Appearance & odor:	Pale yellow. Nearly odorless.
Odor threshold (ppm):	Not available.
Vapour pressure (mmHg):	
Vapour density (air=1):	>1
Volatiles (%)	
By volume:	Not available.
Evaporation rate (butyl acetate = 1):	<1
Boiling point (°C):	103 (217F)
Freezing point (°C):	Not available.
pH:	2.5
Specific gravity @ 20 °C:	(water = 1). 1.12
Solubility in water (%):	Complete.
Coefficient of water\oil dist.:	Not available.
VOC:	None

Section 4 : FIRE AND EXPLOSION HAZARD DATA		
Flammability:	Not flammable.	
Conditions of flammability:	Surrounding fire.	
Extinguishing media:	Carbon dioxide, dry chemical, foam. Water Water fog.	
Special procedures:	Self-contained breathing apparatus required. Firefighters should wear the usual protective gear. Use water spray to cool fire exposed containers.	
Auto-ignition temperature:	Not available.	
Flash point (°C), method:	None	
Lower flammability limit (% vol):	Not applicable.	
Upper flammability limit (% vol):	Not applicable.	
Not available.		
Sensitivity to mechanical impact:	Not available.	
Hazardous combustion products:	Oxides of carbon (COx). Hydrocarbons. Oxygen. Hydrogen. Carbon.	
Rate of burning:	Not available.	
Explosive power:	Containers may rupture if exposed to heat or fire.	

Section 5 : REACTIVITY DATA

Chemical stability: Product is stable under normal handling and storage conditions.

Conditions of instability: Extreme temperatures.

Hazardous polymerization: Will not occur.

Incompatible Strong alkalies. substances: Strong oxidizing agents.

Hazardous See hazardous combustion products.

Section 6 : HEALTH HAZARD DATA

Route of entry: Skin contact, eye contact, inhalation and ingestion.

Effects of Acute Exposure

Eye contact: Irritant.

Skin contact: Slight irritation upon prolonged contact.

- Inhalation: May cause slight irritation.
 - Ingestion: May cause vomiting and diarrhea. May cause gastric distress.
- Effects of chronic exposure: Contains an ingredient which may be corrosive.

LD50 of product, species & route:	> 5000 mg/kg rat oral.
LC50 of product, species & route:	Not available.
Exposure limit of material:	Not available.
Sensitization to product:	Not available.
Carcinogenic effects:	Not listed as a carcinogen.
Reproductive effects:	Not available.
Teratogenicity:	Not available.
Mutagenicity:	Not available.
Synergistic materials:	Not available.
Medical conditions aggravated by exposure:	Not available.
<u>First Aid</u>	
Skin contact:	Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical attention if irritation persists.
Eye contact:	Check for and remove contact lenses. Flush eyes with clear, running water for 15 minutes while holding eyelids open. If irritation persists, consult a physician.
Inhalation:	Remove victim to fresh air. If irritation persists, seek medical attention.
Ingestion:	Do not induce vomiting, seek medical attention. Dilute with two glasses of water. Never give anything by mouth to an unconscious person.

Section 7 : PRECAUTIONS FOR SAFE HANDLING AND USE

Leak/Spill:	Contain the spill. Prevent entry into drains, sewers, and other waterways. Wear appropriate protective equipment. Soak up with an absorbent material. Place in appropriate container for disposal. Flush residue or small spills to sanitary sewer.
Waste disposal:	In accordance with local and federal regulations.
	Protect against physical damage. Avoid breathing vapors/mists. Wear personal protective equipment appropriate to task. Wash thoroughly after handling. Keep out of reach of children. Avoid contact with skin, eyes and clothing. Avoid extreme temperatures. Launder contaminated clothing prior to reuse.
Storage requirements:	Store away from incompatible materials. Keep containers closed when not in use.

Section 8 : CONTROL MEASURES

Precautionary Measures

Gloves/Type:



Neoprene or rubber gloves.

Respiratory/Type: None required under normal use. If exposed to misting. NIOSH approved respirator for vapours and mists. Eye/Type:



Chemical safety goggles with side-shields.

Footwear/Type: Safety shoes per local regulations.

Clothing/Type: As required to prevent skin contact.

Other/Type: Eye wash facility should be in close proximity. Emergency shower should be in close proximity.

Ventilation Local exhaust at points of emission. **requirements:** Ventilation should be corrosion-proof.