



NON CHLORINE SHOCK

Material Safety Data Sheet

Emergency 24 Hour Telephone: CHEMTREC 800.424.9300

Corporate Headquarters: Hasa Inc.
 23119 Drayton Street
 Saugus, California 91350
 Telephone • 661.259.5848
 Fax • 661.259.1538



SANI-CLOR NON CHLORINE SHOCK
 Material Safety Data Sheet MSDS No. 607

CHEMICAL PRODUCT IDENTIFICATION

Product Name:	NON CHLORINE SHOCK
Common Chemical Name:	OXONE
"OXONE" is a registered trademark of DUPONT.	
CAS Number:	70693-62-8
CAS Name:	Potassium Hydrogen Peroxymonosulfate Sulfate
Grade:	Technical and CG (Coarse Granular)
Tradenames and Synonyms:	Potassium Monopersulfate, Potassium Peroxymonosulfate

COMPOSITION/INFORMATION ON INGREDIENTS

Material	CAS Number	%
Potassium Peroxymonosulfate	10058-23-8	43
Potassium Bisulfate	7646-93-7	23
Potassium Sulfate	7778-80-5	29
Potassium Peroxydisulphate	7727-21-1	8
Magnesium Carbonate	546-93-0	2

HAZARDOUS IDENTIFICATION

Potential Health Effects:	Oxone Monopersulfate is a skin and eye corrosive, and a nose and throat irritant. May cause allergic skin reactions in sensitive individuals. Ingestion may cause inflammation and damage to the lining of the stomach, resulting in bleeding.	
Human Health Effects:	Skin Contact:	Skin contact with aqueous solutions or the dry powder upon contact with moisture or perspiration may cause skin burns or ulceration. Temporary body hair loss may occur in contacted areas. Allergic skin reactions were observed at high concentrations, but at lower concentrations of 12 ppm and 150 ppm. No allergic reactions were noted.
	Eye Contact:	Eye contact may cause eye corrosion or ulceration. Blindness may result.
	Inhalation:	Inhalation may cause nose bleeds and irritation of the upper respiratory passages with coughing and discomfort.
	Ingestion:	Ingestion may cause gastritis possibly progressing to necrosis or hemorrhage.
Individuals with preexisting diseases of the skin or gastrointestinal tract may have increased susceptibility to the toxicity of excessive exposures.		

Carcinogenicity Information:	
None of the components present in this material at concentrations equal to or greater than 0.1 % are listed by IARC, NIP, OSHA or ACGIH as a Carcinogen.	

FIRST AID MEASURES	
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Skin Contact:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reuse.
Eye Contact:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
Ingestion:	If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

FIRE FIGHTING MEASURES	
Flammable Properties:	Will not burn.
Fire and Explosion Hazards:	Improper storage of large masses of "OXONE" can trap heat and lead to ignition of combustibles (see section on "HANDLING AND STORAGE"). Grinding or intensive mixing may cause decomposition with liberation of heat and oxygen. Ignition of oxidizable material if present may occur.
Extinguishing Media:	Water
Fire Fighting Instructions:	Will release oxygen when heated, intensifying a fire. Acidic mist may be present. Self-contained breathing apparatus should be present.

ACCIDENTAL RELEASE MEASURES	
Safeguards (Personnel):	Note: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean up. Use appropriate personal protective equipment during clean up.
Accidental Release Measures:	Sweep up. Flush area with low pressure water. (See DISPOSAL CONSIDERATIONS).

HANDLING AND STORAGE	
Handling (Personnel):	Do not inhale. Do not get in eyes, on skin or clothing. Wash thoroughly after handling. Wash clothing after use.
Storage:	Store in a cool, dry, well-ventilated area away from heat sources such as light fixtures or space heaters. Pallets of 25 kg. Bags can be stacked. Leave open space on all sides of each pallet to provide ventilation. See local fire codes for allowable limits. Bulk bags should be stored on pallets. If stacked use pyramid style, no more than 2 pallets high. Closely stacked bags should not exceed a 4 ft. (1.2 m) cube. Keep packages dry. Do not store with combustible materials or with incompatibles (see "Incompatibility with other Materials").

EXPOSURE CONTROLS/PERSONAL PROTECTION	
Engineering Controls:	Use sufficient ventilation to keep employee exposure below recommended limits.

Personal Protective Equipment - For Exposure to Dry material:	
Eye/Face Protection:	Wear safety glasses or coverall chemical splash goggles.
Respirators:	A NIOSH approved air-purifying respirator with an appropriate particulate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.
Protective Clothing:	Where there is potential for skin contact, have available and wear as appropriate impervious gloves, apron, pants and jacket.

Personal Protective Equipment - For Exposure to Solutions:	
Eye/Face Protection:	Wear Coverall Chemical Splash Goggles. Additionally wear a face shield where the possibility exists for face contact due to splashing or spraying of material.
Respirators:	A NIOSH approved air-purifying respirator with an appropriate particulate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.
Protective Clothing:	Where there is potential for skin contact, wear impervious clothing such as gloves, apron, boots or whole bodysuit.

EXPOSURE GUIDELINES:			
Exposure Limits:	“OXONE” Monopersulfate Compound:	PEL (OSHA):	Particulates (Not otherwise regulated) 15 mg/m ³ , 8 hr, TWA, Total Dust 5 mg/m ³ , 8 hr, TWA, Respirable Dust
		TLV (ACGIH):	None Established
		AEL (DUPONT):	1 mg/m ³ , 8 & 12 hr, TWA
Other Applicable Exposure Limits:	Potassium Sulfate:	PEL (OSHA):	None Established
		TLV (ACGIH):	None Established
		AEL (DUPONT):	10 mg/m ³ , 8 hr, TWA
	Potassium Peroxydisulfate:	TLV (ACGIH):	0.1 mg/m ³ , 8 hr, TWA
		Magnesium Carbonate:	PEL (OSHA):
	TLV (ACGIH):		10 mg/m ³ , Total Dust, 8 hr, TWA
AEL (DUPONT):	None Established		

AEL is DUPONT's acceptable exposure limit. Where Governmentally imposed occupational exposure limits are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES			
Boiling Point:	@ 760 mm Hg decomposes	Vapor Pressure:	NIL
Vapor Density:	Not Volatile	Melting Point:	Decomposes
Evaporation rate:	(Butyl Acetate=1) Not Volatile	Solubility in water:	25.6 wt.% @ 20 °C (68 °F)
pH:	1% Solution=2.3; 3% Solution=2.0	Odor:	Odorless
Form:	Granular; Free flowing solid	Color:	White
Specific Gravity:	1.1 - 1.4		

STABILITY AND REACTIVITY	
Chemical Stability:	Stable when handled and stored as indicated.
Incompatibility with other materials:	The mixture of "OXONE" with compounds containing Halides or active Halogens can cause release of the respective Halogen. If moisture is present, for example, mixing with Sodium Dichloroisocyanurate or with Sodium Chloride can cause release of Chlorine gas. Mixing with Cyanides can cause release of Hydrogen Cyanide Gas. Mixing with heavy metal salts such as those of Cobalt, Nickel, Copper, or Manganese can cause decomposition with release of oxygen and heat.
Decomposition:	Decomposes when heated or damped, releasing oxygen and heat of decomposition.
Polymerization:	Polymerization will not occur.

TOXICOLOGICAL INFORMATION	
Animal Data:	
Inhalation 4-Hour LC50:	>5 mg/l in Rats.
Skin Absorption LD50:	>11,000 mg/kg in Rabbits.
Oral LD50:	2000 mg/kg in Rats.
A blend of Oxone Monopersulfate and Anhydrous Sodium Carbonate caused skin corrosion in tests on animals. Single inhalation exposures produced nonspecific effects such as weight loss and irritation. Repeated inhalation exposures produced eye irritation and reversible corneal damage. By ingestion, the administration of large single doses produced nonspecific effects such as weight loss and irritation as well as gastric ulceration, necrosis, and hemorrhage. The compound does not produce genetic damage in Bacterial cell cultures.	

ECOLOGICAL INFORMATION			
Ecotoxicological Information:			
Aquatic Toxicity:	Potassium Sulfate:	96-Hour TLM, Bluegill Sunfish:	3500 mg/l
	Magnesium Carbonate:	96-Hour LC50, Species Unidentified:	>1000 ppm

DISPOSAL CONSIDERATIONS	
Waste Disposal:	Comply with Federal, State, and Local regulations. Solutions greater than 3% by weight have a pH < 2.0, and may be a RCRA hazardous waste upon disposal due to the acidic pH characteristic of the solution. If approved, flush to sewer or waste treatment plant. Large quantities should be neutralized with Soda Ash.

TRANSPORTATION INFORMATION		
SHIPPING INFORMATION:		
DOT/IMO:	Proper Shipping Name:	Corrosive Solid, Acidic, Inorganic, N.O.S. (Monopersulfate Compound)
	Hazard Class:	8
	UN No.:	3260
	DOT/IMO Label:	Corrosive
	Packing Group:	11
Shipping Containers:	Multiwall Bags, Fiber Pack Bags, Bulk Bags	

REGULATORY INFORMATION		
U.S. FEDERAL REGULATIONS:		
TSCA Inventory Status:	Reported/Included	
TITLE III Hazard Classifications Sections 311, 312:	Acute:	Yes
	Chronic:	No
	Fire:	No
	Reactivity:	No
	Pressure:	No
LISTS:	SARA Extremely Hazardous Substance:	No
	CERCLA Hazardous Material:	No
	SARA Toxic Chemical:	No
Canadian WHMIS Classification:	D2B	
Canada Pets Control Products ACI:	Registration Number 23137	

OTHER INFORMATION		
OTHER INFORMATION: NFPA, NPCA-HMIS		
NPCA-HMIS Rating:	Health:	3
	Flammability:	0
	Reactivity:	1
Personal protection rating to be supplied by user depending on use conditions.		

Please Note: The information contained herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge and belief. NO WARRANTY OR GUARANTEE, expressed or implied, is made regarding the product performance, product stability, or as to any other condition of use, handling, transportation, and storage. Customer use, handling, transportation, and storage may involve additional safety and/or performance considerations. Our technical personnel will be happy to respond to questions regarding safe handling, storage, transportation and use procedures. The safe handling, storage, transportation and use procedures remain the sole responsibility of the customer. No suggestions for handling, storage, transportation or use are intended as or to be construed as recommendations which may infringe on any existing patents or violate any Federal, State, and/or local law and/or regulation, ordinance, standard, etc.. This Material Safety Data Sheet has been prepared by HASA, Inc. staff from test reports and other information available in the public domain.