MATERIAL SAFETY DATA SHEET

OxiGreen

EPA REGISTRATION #63838-1-90559

1) PRODUCT AND COMPANY

PRODUCT:	OxiGreen
SYNONYMS:	Peracetic Acid, Acetyl Hydroperoxide, Peroxyacetic Acid
REGISTRATIONS:	EPA Registration # 63838-1-90559
DISTRIBUTOR:	MChem, Inc 301 Montebello Oaks Drive Paso Robles, CA 93446

TRANSPORTATION EMERGENCIES: CHEMTREC (US) 800-424-9300

2) COMPOSITION AND HAZARDOUS INGREDIENTS:

Chemical Name	CAS #	Wt%	Exposure Limits
Peroxyacetic Acid	79-21-0	5-6%	
Hydrogen Peroxide	7722-84-1	25-27.5%	1 ppm (TWA); 1 ppm PEL
Acetic Acid	64-19-7	5-10%	15 ppm STEL; 10 ppm PEL
Water	7732-18-5	Balance	

3) HAZARD IDENTIFICATION:

PHYSICAL PROPERTY: Liquid

EMERGENCY OVERVIEW: DANGER! OXIDIZER! CONTACT WITH ORGANIC MATERIALS MAY CAUSE VIOLENT REACTION. CAUSES EYE, AND SKIN BURNS.

ROUTES OF ENTRY: Skin contact, eye contact, inhalation, ingestion.

4) HEALTH HAZARD DATA: FIRST AID

EYES: Immediately flush with water for at least 15 minutes, lifting upper and lower eyelids intermittently. See a medical doctor immediately.

SKIN: Remove contaminated clothing and thoroughly wash with soap and water. If irritation occurs and persists, contact a physician.

INGESTION: Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. DO NOT induce vomiting. See medical doctor immediately.

INHALATION: Remove to fresh air. If breathing discomfort occurs and persists, see a medical doctor. If breathing has stopped, give artificial respiration. See medical doctor immediately.

FIRST AID NOTES: This product can be corrosive to skin, eyes, and mucous membranes. Consideration should be given to careful endoscopy as stomach or esophageal burns, perforations or strictures may occur. Careful gastric lavage with an endotracheal tube in place should be considered.

5) FIRE AND HAZARD DATA:

FLASH POINT:	>200° F (closed cup)
FLAMMABLE LIMITS:	N/A
AUTO IGNITION TEMP:	270° C
EXTINGUISHING MEDIA:	Water spray, carbon dioxide, foam.
POLYMERIZATION:	Will not occur.

FIREFIGHTING PROCEDURES: Use flooding quantities of water only. Use water spray to keep all containers cool. Fight fire from protected or removed distance. Chemical type extinguishers are not very effective. Use proper personal protective equipment and positive pressure self-contained breathing apparatus.

STATIC DISCHARGE: N/A

HAZARDOUS DECOMPOSITION: Oxygen that supports combustion.

6) **SPILL OR LEAK PROCEDURES**:

Always approach spills from upwind. Small spills may be flushed to an approved sewer line with generous amounts of water. For larger spills, dike well ahead of spill with non-reactive material such as sand. Spill may be neutralized with soda ash (sodium carbonate) broadcasted on surface. Use 1 to 1.5

lb. of soda ash for each gallon of spilled material. The resultant neutralized product will become carbon dioxide and water. Flush material with water and collect for disposal into plastic container. A flush to sewer may be allowed if approved by local authority. Dispose of in accordance with federal, state, or local laws.
Combustible materials should be removed and/or rinsed with water to ensure all residual hydrogen peroxide is removed to the extent possible.

7) **HANDLING AND STORAGE**:
HANDLING: Store drums in upright position only. Empty drums as thoroughly as possible. Triple rinse before disposal. Never return product to original container.
STORAGE: Do not store near reducing agents, fuels, organic material, or other non-compatible materials. Store in a cool, dry, well ventilated area. Avoid temperatures above 86 F. DO NOT STORE IN DIRECT SUNLIGHT, or near sources of ignition or heat. Use first in, first out storage management. Containers must be vented.

8) PERSONAL PROTECTIVE EQUIPMENT:
EYES AND FACE: Use cup type chemical goggles or face shield.
SKIN: Use synthetic apron and protective clothing and other protective equipment as necessary to prevent skin contact.
RESPIRATORY: For normal use as directed, respiratory protection is not required. If handling concentrate product use approved acid/gas cartridge or canister if discomfort occurs. If breakthrough occurs, then use self contained breathing apparatus.
PROTECTIVE CLOTHING: Heavy rubber or vinyl gloves. Rubber boots, vinyl or rubber protective suit.

9) PHYSICAL DATA:

ODOR:	Sharp, pungent, vinegar-like odor.
APPEARANCE:	Colorless liquid.
PH 10% SOLUTION:	1.8
PERCENT VOLATILES:	<10%
VAPOR PRESSURE:	22 mm Hg @ 25° C
SOLUBILITY:	100% in water
DENSITY:	9.35lbs/gal

10) REACTIVITY OR STABILITY DATA:
CONDITIONS TO AVOID: Open flames, elevated temperatures, any source of heat, combustibles such as paper, wood, or leather. Temperatures above 86 F will degrade product, accelerate decomposition, and reduce shelf life.
STABILITY: Product is shelf-stable for up to 1 year when stored at room temperatures and not in direct sunlight.
HAZARDOUS DECOMPOSITION: Degrades giving off acetic acid and oxygen.
INCOMPATIBLE MATERIALS: Dirt, alkali (lye), organics, leather, paper, wood, and heavy metals.

11) TOXOLOGICAL INFORMATION:
ACUTE HEALTH EFFECTS:
EYES: Corrosive to eyes.
SKIN: Corrosive to skin.
INHALATION: Irritating to respiratory system.
INGESTION: May be harmful if swallowed. Causes burns to mouth, throat and stomach.

MUTAGENIC EFFECTS: No known significant effects.
TERATOGENIC EFFECTS: No known significant effects.
REPRODUCTIVE EFFECTS: No known significant effects.
SENSITIZATION EFFECTS: No known significant effects.

TOXICITY DATA:

Hydrogen peroxide:	LD50 Oral, 500 mg/kg, rat
Acetic Acid:	LD50 Oral, 3310 mg/kg (rat)
	LD50 Dermal, 1060 ul/kg, Rabbit
Peracetic acid:	LD50 Dermal, >12,000 mg/kg, rat
	LD50 Oral, 210 mg/kg, mouse

12) ECOLOGICAL INFORMATION: Continuous Flow-Through System

FRESHWATER

Fathead Minnow:	Chronic LC50, 1.16 ppm
Ceriodaphnia:	Chronic, Reproductivity, LC50, 1.03 ppm
Bluegill Sunfish:	Acute, LC50, 1.21 ppm
Daphnia magna:	Acute, LC50, 0.76 ppm
Rainbow trout:	Acute, LC50, 0.68 ppm

MARINE

Pacific Silverside:	Acute, LC50, 2.2 ppm
Sheepshead minnow:	Acute, LC50, 3.8 ppm; Chronic, 5.9 ppm
Topsmelt:	Acute LC50, 2.8 ppm
Mysid:	Acute, 0.7 ppm
Bay Mussel:	Acute, LC50, 2.91 ppm
M. bahia:	Chronic, 0.35 ppm

13) DISPOSAL CONSIDERATIONS:

WASTE DISPOSAL: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with waterways, drains, and sewers. Disposal of this product should comply with the requirements of the local, state or regional environmental authority.

14) REGULATORY INFORMATION:

DOT (Department of Transportation):

DOT MARKING: Hydrogen Peroxide and Peroxyacetic Acid Mixture, Stabilized*, (with not more than 6% Peroxyacetic Acid);*

HAZARD CLASS: 5.1, 8 (oxidizer, corrosive); UN/NA NUMBER: UN 3149

PACKING GROUP: II; SUBSIDIARY LABEL; 8

SARA TITLE III SECTION 302: (40 CFR 355)

Listed: (peracetic acid), Planning Threshold = 8,900 lbs (as is)

SECTION 302.4 REPORTABLE QUANTITIES (40 CFR 355)

Listed: (peracetic acid), Planning Threshold = 8,900 lbs (as is)

SECTION 311 HAZARD CATEGORY (40 CFR 370)

Immediate Health Hazard (Acute)

SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370)

Listed: (peracetic acid), Planning Threshold = 8,900 lbs (as is)

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372)

Listed, Peracetic Acid

CERCLA (40 CFR 302.4)

Listed (Acetic Acid), Category D; RQ = 31,000 lbs (as is)

CANADA: WHMIS

Hazard Class: Class D, Div. 2, Subdiv. B, Class E (Corrosive), Class C (Oxidizer); Ingredient Disclosure List: Listed.

15) RATINGS:

HMIS (Hazardous Materials Identification System)

Health 3, Flammability 1, Reactivity 1, Protection H

NFPA (National Fire Protection Association)

Health 3, Flammability 1, Reactivity 1, Special OX

16) OTHER REGULATORY INFORMATION:

WHMIS: Class C: Oxidizing material. Class E: Corrosive material

This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations.*

17) OTHER INFORMATION:

This MSDS is in accordance with OSHA Hazard Communication Standards.

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