PHYTON CORPORATION
SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identity: X3

Recommended use: Algaecide, Bactericide and Fungicide
Restrictions on Use: Use only as directed on the product label.

Supplier:
Phyton Corporation
P.O. Box 385370
Minneapolis, MN 55438
Telephone: +1 (952) 378-1157, 800-356-8733

Emergency Phone:
For Chemical Emergency
Spill, Leak, Fire, or Accident
Call **CHEMTREC** Day or Night
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2. HAZARDS IDENTIFICATION

GHS Classification:

Oxidizing liquids	:	Category 2
Acute Toxicity (Oral)	:	Category 4
Acute Toxicity (Inhalation)	:	Category 4
Skin corrosion	:	Category 1A
Serious eye damage	:	Category 1

GHS Label Elements:
DANGER!

Statements of Hazard
May intensify fire; oxidizer.
Harmful if swallowed or if inhaled.
Causes severe skin burns and eye damage.

Prevention
Keep away from heat. Keep/Store away from Clothing/combustable materials. Take any precaution to avoid mixing with combustables. Avoid breathing dust/fumes/gas/mist/vapors/spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only in a well-ventilated area or outdoors. Wear protective

Response
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remoce/ Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at res in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ phtsician. Wash contaminated clothing before reuse. In case of fire: Use dry sand, drychemical or alcohol-resistant foam for extinction.

gloves/protective clothing/eye protection/face protection. Warning! Do not use together with other products. May release dangerous gases (chlorine).

Storage
Store locked up. Keep cool.
Disposal
Dispose of contents/container in an approved waste disposal plant.

Other hazards : None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture: ; Mixture

Component	CAS No.	Amount
Hydrogen peroxide	7722-84-1	6.9%
Peroxyacetic acid	79-21-0	4.4%
Octanoic Acid	124-07-2	3.3%
Acetic Acid	64-19-7	10 - 30%
Secondary Alkanesulphonates	5324-84-5	1 - 5%

4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention.

Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician : Treat symptomatically.

See toxicological information (Section 11)

5. FIRE FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during fire fighting : Oxidizer. Contact with other material may cause fire.

Hazardous combustion products : Carbon oxides

Special protective equipment for fire-fighters	:	Use personal protective equipment.
Specific extinguishing methods	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	:	Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	:	Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

7. HANDLING AND STORAGE

Advice on safe handling	:	Do not ingest. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation. Warning! Do not use together with other products. May release dangerous gases (chlorine).
Conditions for safe storage	:	Keep in a cool, well-ventilated place. Keep away from reducing agents. Keep away from strong bases. Keep away from combustible material. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
Storage temperature	:	-30 °C to 40 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Form of exposure	Permissible concentration	Basis
Acetic acid	64-19-7	TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
		STEL	15 ppm 37 mg/m3	NIOSH REL
		TWA	10 ppm 25 mg/m3	NIOSH REL

		TWA	10 ppm 25 mg/m3	OSHA Z1
Hydrogen peroxide	7722-84-1	TWA	1 ppm	ACGIH
		TWA	1 ppm	NIOSH REL
			1.4 mg/m3	
		TWA	1 ppm 1.4 mg/m3	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Safety goggles
Face-shield

Hand protection : Wear the following personal protective equipment:
Standard glove type.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	colorless
Odor	:	pungent
pH	:	0.9, 100 %
Flash point	:	not applicable
Odor Threshold	:	no data available
Melting point/freezing point	:	no data available
Initial boiling point and boiling range	:	no data available
Evaporation rate	:	no data available
Flammability (solid, gas)	:	no data available

Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapor pressure	:	no data available
Relative vapor density	:	no data available
Relative density	:	1.082
Water solubility	:	no data available
Solubility in other solvents	:	no data available
Partition coefficient: n-octanol/water	:	no data available
Autoignition temperature	:	no data available
Thermal decomposition	:	no data available
Viscosity, kinematic	:	no data available
Explosive properties	:	no data available
Oxidizing properties	:	no data available
Molecular weight	:	no data available
VOC	:	no data available

10. STABILITY AND REACTIVITY

Chemical stability	:	pressure build-up
Possibility of hazardous reactions	:	Warning! Do not use together with other products. May release dangerous gases (chlorine).
Conditions to avoid	:	None known.
Incompatible materials	:	Bases Metals Organic materials
Hazardous decomposition products	:	Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	Inhalation, Eye contact, Skin contact

Potential Health Effects

Eyes	:	Causes serious eye damage.
Skin	:	Causes severe skin burns.
Ingestion	:	Causes digestive tract burns.

Inhalation	:	May cause nose, throat, and lung irritation.
Chronic Exposure	:	Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact	:	Redness, Pain, Corrosion
Skin contact	:	Redness, Pain, Corrosion
Ingestion	:	Corrosion, Abdominal pain
Inhalation	:	Respiratory irritation, Cough

Toxicity

Acute oral toxicity	:	no data available
Acute inhalation toxicity	:	no data available
Acute dermal toxicity	:	Acute toxicity estimate : 3,705 mg/kg
Skin corrosion/irritation	:	no data available
Serious eye damage/eye irritation	:	no data available
Respiratory or skin sensitization	:	no data available

Carcinogenicity

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive effects	:	no data available
Germ cell mutagenicity	:	no data available
Teratogenicity	:	no data available
STOT-single exposure	:	no data available
STOT-repeated exposure	:	no data available
Aspiration toxicity	:	no data available

Ingredients

Acute oral toxicity	:	Hydrogen peroxide LD50 rat: 486 mg/kg Peroxyacetic acid LD50 rat: 1,634 mg/kg

Octanoic acid
LD50 rat: > 2,000 mg/kg

Acetic acid
LD50 rat: 3,310 mg/kg

Secondary Alkanesulphonates
LD50 rat: > 5,000 mg/kg

Ingredients

Acute inhalation toxicity : Peroxyacetic acid
4 h LC50 rat: 5.175 mg/l

Octanoic acid
4 h LC50 rat: > 4.6 mg/l

Acetic acid
4 h LC50 rat: > 40 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

Product

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to algae : no data available

Ingredients

Toxicity to fish : Peroxyacetic acid
96 h LC50: 0.8 mg/l

Octanoic acid
96 h LC50 Fish: 22 mg/l

Acetic acid
96 h LC50: 75 mg/l

Ingredients

Toxicity to daphnia and other aquatic invertebrates : Peroxyacetic acid
48 h EC50: 0.73 mg/l

Secondary Alkanesulphonates
48 h EC50 Daphnia : 3,200 mg/l

Ingredients

Toxicity to algae	:	Hydrogen peroxide 72 h EC50: 1.38 mg/l Peroxyacetic acid 72 h EC50: 0.7 mg/l

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Disposal methods	:	The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
Disposal considerations	:	Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.
RCRA - Resource Conservation and Recovery Authorization Act Hazardous waste	:	D001 (Ignitable) D002 (Corrosive)

14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

UN number	:	3109
Description of the goods	:	Organic peroxide type F, liquid (Peroxyacetic acid)
Class	:	5.2 (8)
Packing group	:	II
Environmentally hazardous	:	no

Sea transport (IMDG/IMO)

UN number	:	3109
Description of the goods	:	ORGANIC PEROXIDE TYPE F, LIQUID (Peroxyacetic acid)
Class	:	5.2 (8)
Marine pollutant	:	no

15. REGULATORY INFORMATION

EPA Registration number : 1677-158

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Acetic acid	64-19-7	5000	20833

SARA 304 Extremely Hazardous Substances Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Peroxyacetic acid	79-21-0	500	11364

SARA 311/312 Hazards : Acute Health Hazard
Fire Hazard

SARA 302 : The following components are subject to reporting levels established by SARA Title III, Section 302:

Peroxyacetic acid 79-21-0 4.4 %

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Peroxyacetic acid 79-21-0 4.4 %

California Prop 65
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

1907/2006 (EU) :
not determined

Switzerland. New notified substances and declared preparations :
not determined

United States TSCA Inventory :
On TSCA Inventory

Canadian Domestic Substances List (DSL) :
This product contains one or several components listed in the Canadian NDSL.

Australia Inventory of Chemical Substances (AICS) :
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemical Substances :
not determined

Japan. ENCS - Existing and New Chemical Substances Inventory :
not determined

Japan. ISHL - Inventory of Chemical Substances (METI) :
On the inventory, or in compliance with the inventory

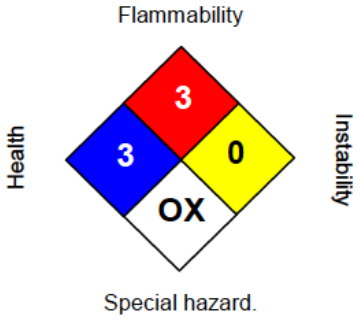
Korea. Korean Existing Chemicals Inventory (KECI) :
not determined

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :
not determined

China. Inventory of Existing Chemical Substances in China (IECSC) :
not determined

16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	3
PHYSICAL HAZARD	2

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

SDS Date of Preparation: June 1, 2015

NOTICE

This above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. Phyton Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.