

According to OSHA Hazard Communication Standard 29 CFR 1910.1200 (GHS)

Product name Product id Revision date Supersedes

### **Protech Yellow Algae Remover**

AS\_2270Y\_PT 05/08/2014 30/05/2011

Revision: 5

### 1. Identification of the substance & the company

2. Hazards identification		
Emergency Telephone	Chemtrec (800)424-9300 Medical (800)420-9236	
Supplier	Clearon Corp. 95 MacCorkle Ave. SW, South Charleston, WV 25303, USA Toll Free Number: 1-800-811-2327	
Type of product and use	Pool algaecide	
Molecular weight	102.9	
Chemical family	Inorganic bromide	
Chemical formula	NaBr	
Chemical name	Sodium bromide	

GHS classification	Not Classified
Labels and other form of warning	Not classified

### 3. Composition / information on ingredients

Components	CAS No.	Weight %
Sodium Bromide	7647-15-6	98-99.5

4.	First-aid measures

Eye contact

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

Call a poison control center or doctor for treatment advice.



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Skin contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.	
Inhalation	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.	
Ingestion	Call poison control center, or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.	
Most important symptoms and effects, acute or delayed		
- Eye Contact	Mild irritant	
- Skin contact	Not irritant to intact skin. Slightly irritant on prolonged contact to abraded skin.	
- Inhalation	Irritant to upper respiratory tract.	
- Ingestion	Abdominal pain, nausea and vomiting. May cause falling asleep, muscular incoordination and respiratory depression.	
Note to physician	No specific antidote. Treat symptomatically and supportively. Probable mucosal damage may contraindicate the use of gastric lavage.	
5. Fire - fighting measures		
Suitable extinguishing media	Material is not combustible. Use extinguishing media appropriate to surrounding fire conditions.	

Unusual fire and explosion hazards	Will decompose from ca. 800°C releasing poisonous and corrosive fumes of hydrogen bromide and sodium oxide.
Fire fighting procedure	Cool containers with water spray. In closed stores, provide fire-fighters with self-contained breathing apparatus in positive pressure mode.

# 6. Accidental release measures



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Personal precautions	Wear respirator, chemical safety goggles, rubber gloves and boots.	
Methods for cleaning up	Sweep up, place in a bag and hold for waste disposal or possible reuse. Ventilate area and wash spill site after material pickup is complete.	
Environmental precautions	Prevent entry into sewers and watercourses	
7. Handling and storage		
Handling	Avoid bodily contact. Keep containers tightly closed.	
Storage	Keep in a well-ventilated place away from incompatible materials (see "materials	

8. Exposure controls / personal protection

to avoid").

#### **Exposure Limits :**

Components	ACGIH-TLV Data	OSHA (PEL) Data
Sodium Bromide 7647-15-6	Not determined	Not determined

**Ventilation requirements** 

Provide adequate ventilation.

Personal protective equipment:

<ul> <li>Respiratory protection</li> </ul>	In case of significant or accidental dust emissions, dust mask should be worn
<ul> <li>Hand protection</li> </ul>	Protective gloves
- Eye protection	Chemical safety goggles
<ul> <li>Skin and body protection</li> </ul>	Body covering clothes and boots
Hygiene measures	Do not eat smoke or drink where material is handled processed or stored. Was

Do not eat, smoke or drink where material is handled, processed or stored. Wash Hygiene measures hands thoroughly after handling and before eating or smoking. Safety shower and eye bath should be provided.

### 9. Physical and chemical properties

Appearance	White granular powder or compacted solid, odourless
Melting point/range	755°C
Boiling point/range	1390°C
Flash point	None
Evaporation rate (ether=1)	Not applicable under standard conditions



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Flammable/Explosion limits	Not flammable	
Vapor pressure	1 mmHg (806°C)	
Vapor density	Not applicable under standard conditions	
Solubility:		
- Solubility in water	94.6 gr/100ml at 25°C	
- Solubility in other solvents	ethanol: 95%: 7 g/100g at 25°C	
-	methanol: 14.8 g/100g at 25°C	
Partition coefficient (n-octanol/water)	Not applicable since this material is almost completely soluble in wat	er.
Auto-ignition temperature	Not applicable	
Specific gravity	3.203	

# **10. Stability and reactivity**

Reactivity	Reacts explosively with bromine trifluoride .
Stability	Stable at normal conditions The powder product tends to cake under normal storage conditions.
Possibility of hazardous reactions	Not expected to occur
Conditions to avoid	Heating above decomposition temperature
Materials to avoid	Strong acids. Heavy metal salts. Strong oxidants.
Hazardous decomposition products	Hydrogen bromide and sodium oxide Bromine fumes

# 11. Toxicological information

Likely Routes of Exposure	Skin Eye contact Inhalation Ingestion
Acute toxicity:	
- Rat oral LD50	4200 mg/kg



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- Rabbit dermal LD50 - Eye irritation (rabbit)	>2000 mg/kg Slightly irritant
- Dermal irritation (rabbit)	Not irritant
Dermal sensitization	Not a sensitizer
Chronic toxicity	Repeated skin contact may cause dermatitis. Repeated oral intake of bromides (>9 mg/kg body weight/day) may affect the central nervous system. Warning symptoms include mental dullness, slurred speech, weakened memory, apathy, anorexia, constipation, drowsiness and loss of sensitivity to touch and pain.
Mutagenicity	Does not induce DNA repair in cultured human epithelioid cells. Not clastogenic in human lymphocytes metaphase analysis. Not mutagenic by the Ames Test.
Carcinogenicity	Not classified by IARC Not included in NTP 12th Report on Carcinogens
Reproductive toxicity	Sodium bromide has been shown to cause embryo-fetal toxicity and malformations in rats at dose levels which also produce maternal toxicity. The No-Observed Effect Level (NOEL) is 100 mg/kg/day, and the Acceptable Daily Intake (ADI) for sodium bromide from food and drinking water in humans is 1 mg/kg/day. Comparable high doses of sodium chloride (table salt) similarly cause malformations, embryo-fetal toxicity, and maternal toxicity in mice.
Teratogenicity	In the oral gavage pre-natal developmental toxicity study in the Rabbit, there were no obvious effects of maternal treatment on the survival, growth or development of the offspring at any of the dosages investigated. The No Observed Effect Level (NOEL) for the developing conceptus was considered to be 250 mg/kg/day.

### 12. Ecological information

Environmental fate	NaBr is an inorganic salt, which fully dissociates in aquatic environment to bromide and sodium ions. It also undergoes degradation in soil to bromide ion (no further degradation or biodegradation will occur).
Aquatic toxicity :	
- 96 Hour-LC50, Fish	>1000 mg/l (rainbow trout) >1000 mg/l (bluegill sunfish)



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- 48 Hour-EC50, Daphnia magna	<b>a</b> >1000 mg/l			
Avian toxicity: - Oral LD50, Bobwhite quail - Dietary LC50, Mallard duck - Dietary LC50, Bobwhite quail	>2250 mg/kg >5633 ppm >5633 ppm			
Toxicity to micro-organisms	Activated sewage sludge respiration inhibition test: EC50 > 1000 mg/l (3 hours). NOEC was 1000 mg/l (3 hours)			
Persistence and degradability	Not relevant for inorganic salts			
Bioaccumulative potential	Not expected to bioaccumulate BCF=0.23-1.41			
Mobility in soil	Not relevant for inorganic salts			
13. Disposal considerations				
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<b>13. Disposal consider</b> Waste disposal	ations Observe all federal, state and local environmental regulations when disposing of this material			
	Observe all federal, state and local environmental regulations when disposing of			
Waste disposal	Observe all federal, state and local environmental regulations when disposing of this material Dispose of in a safe manner in accordance with local/national regulations.			
Waste disposal Disposal of Packaging	Observe all federal, state and local environmental regulations when disposing of this material Dispose of in a safe manner in accordance with local/national regulations.			
Waste disposal Disposal of Packaging 14. Transportation inf	Observe all federal, state and local environmental regulations when disposing of this material Dispose of in a safe manner in accordance with local/national regulations.			
Waste disposal Disposal of Packaging 14. Transportation inf DOT	Observe all federal, state and local environmental regulations when disposing of this material Dispose of in a safe manner in accordance with local/national regulations. ormation Not regulated			
Waste disposal Disposal of Packaging 14. Transportation inf DOT IMDG	Observe all federal, state and local environmental regulations when disposing of this material Dispose of in a safe manner in accordance with local/national regulations.  ormation Not regulated Not regulated Not regulated			
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- Emergency overview in	CAUTION	
accordance to EPA Master Lab		
	Harmful if absorbed through the skin	
	Do not mix this product directly with any chlorinated material or any c	oxidizer
	product.	
	This pesticide is toxic to fish and aquatic organisms.	
- SARA 313	Not listed	
Canada	Listed in DSL	
-WHMIS hazard class	D2A Very toxic material causing other toxic effects	
EC No.	231-599-9	
Japan	ENCS no. 1-113	
oupun	ISHL no. 1-113	
Australia	Listed in AICS	
China		
- China inventory	Listed in IECSC	
Korea	Listed in ECL (KE 21268)	
NUIEa	Listed in ECL (KE-31368)	
Philippines	Listed in PICCS	
16 Other information		

#### 16. Other information

#### This data sheet contains changes from the previous version in section(s)

1, 2, 4, 13, 15, 16

#### All sections reformatted in accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (GHS)

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#### End of safety data sheet