



SAFETY DATA SHEET

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

Product name Azure Yellow Algae Remover
Product id AS_2270Y_AZ
Revision date 05/08/2014 **Revision: 5**
Supersedes 30/05/2011

1. Identification of the substance & the company

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

2. Hazards identification

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



SAFETY DATA SHEET

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

Product name	Azure Yellow Algae Remover	
Product id	AS_2270Y_AZ	
Revision date	05/08/2014	Revision: 5
Supersedes	30/05/2011	

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.
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.
-------------------------------------	--



SAFETY DATA SHEET

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

Product name Azure Yellow Algae Remover
Product id AS_2270Y_AZ
Revision date 05/08/2014 **Revision: 5**
Supersedes 30/05/2011

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

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 to avoid").

8. Exposure controls / personal protection

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:

- **Respiratory protection** In case of significant or accidental dust emissions, dust mask should be worn
- **Hand protection** Protective gloves
- **Eye protection** Chemical safety goggles



SAFETY DATA SHEET

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

Product name	Azure Yellow Algae Remover	
Product id	AS_2270Y_AZ	
Revision date	05/08/2014	Revision: 5
Supersedes	30/05/2011	

- Skin and body protection	Body covering clothes and boots
Hygiene measures	Do not eat, smoke or drink where material is handled, processed or stored. Wash 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
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 water.
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



SAFETY DATA SHEET

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

Product name	Azure Yellow Algae Remover	
Product id	AS_2270Y_AZ	
Revision date	05/08/2014	Revision: 5
Supersedes	30/05/2011	

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
- Rabbit dermal LD50	>2000 mg/kg
- Eye irritation (rabbit)	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
------------------------	--



SAFETY DATA SHEET

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

Product name	Azure Yellow Algae Remover	
Product id	AS_2270Y_AZ	
Revision date	05/08/2014	Revision: 5
Supersedes	30/05/2011	

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)
- 48 Hour-EC50, Daphnia magna	>1000 mg/l
Avian toxicity:	
- Oral LD50, Bobwhite quail	>2250 mg/kg
- Dietary LC50, Mallard duck	>5633 ppm
- Dietary LC50, Bobwhite quail	>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



SAFETY DATA SHEET

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

Product name	Azure Yellow Algae Remover	
Product id	AS_2270Y_AZ	
Revision date	05/08/2014	Revision: 5
Supersedes	30/05/2011	

Mobility in soil	Not relevant for inorganic salts
-------------------------	----------------------------------

13. Disposal considerations

Waste disposal	Observe all federal, state and local environmental regulations when disposing of this material
-----------------------	--

Disposal of Packaging	Dispose of in a safe manner in accordance with local/national regulations.
------------------------------	--

14. Transportation information

DOT	Not regulated
------------	---------------

IMDG	Not regulated
-------------	---------------

ICAO/IATA	Not regulated
------------------	---------------

15. Regulatory information

USA	Reported in the EPA TSCA Inventory. This product is a registered pesticide under FIFRA.
------------	--

- EPA Registration no.	69470-31-75217
-------------------------------	----------------

- Emergency overview in accordance to EPA Master Label	CAUTION Harmful if swallowed Harmful if absorbed through the skin Do not mix this product directly with any chlorinated material or any 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
---------------	-----------



SAFETY DATA SHEET

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

Product name	Azure Yellow Algae Remover	
Product id	AS_2270Y_AZ	
Revision date	05/08/2014	Revision: 5
Supersedes	30/05/2011	

Japan	ENCS no. 1-113 ISHL no. 1-113
Australia	Listed in AICS
China - China inventory	Listed in IECSC
Korea	Listed in ECL (KE-31368)
Philippines	Listed in PICCS

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)

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, NAVA Water Products makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its safety and suitability for their purposes prior to use. In no event will NAVA Water Products be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE, ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS.

Prepared by	North America Regulatory Affairs ICL-IP America Inc. 95 MacCorkle Ave., S.W. South Charleston, WV 25303 USA Phone number: (304) 746-3000
--------------------	---



SAFETY DATA SHEET

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

Product name Azure Yellow Algae Remover
Product id AS_2270Y_AZ
Revision date 05/08/2014
Supersedes 30/05/2011

Revision: 5

Prepared for NAVA Water Products
95 MacCorkle Ave. SW,
South Charleston, WV 25303 , USA
Tel: (304) 746-3000

End of safety data sheet