



# MATERIAL SAFETY DATA SHEET

---

## I - PRODUCT IDENTIFICATION

Product: O-ACE-sis® Yellow Eliminator  
Chemical Family: Inorganic bromide  
Formula: NaBr  
CAS Number: 7647-15-6  
Synonyms: Sodium bromide

### COMPANY IDENTIFICATION

AllChem Performance Products  
6010 NW First Place  
Gainesville, FL 32607  
Tel: 352-378-9696

### DISTRIBUTED BY

Water Techniques, Inc.  
157 Pickett's Way  
Acworth, GA 30101  
Tel: 770-966-0250

## II – COMPOSITION, INFORMATION ON INGREDIENTS

| Chemical or Common Name:          | Exposure Limits |                  |
|-----------------------------------|-----------------|------------------|
|                                   | OSHA PEL:       | ACGIH TLV:       |
| Sodium Bromide<br>[7647-15-6] 98% |                 | none established |

## III – HAZARDS IDENTIFICATION

### Primary Route(s) of Entry:

Ingestion: ( )  
Inhalation: (X)  
Skin Contact: (X)  
Eye Contact: (X)

### Primary Health Hazards (Acute and Chronic):

Adverse Human Health Effects: None under recommended use instructions.

### Carcinogenicity Listings:

OSHA: ( )  
NTP: ( )  
IARC: ( )

### Signs & Symptoms of Exposure:

Ingestion: Abdominal pain, nausea and vomiting. May cause falling asleep, muscular incoordination, and respiratory depression.

Inhalation: Repeated or prolonged exposure can cause irritation to upper respiratory tract, nose, and throat.

Skin Contact: Prolonged or repeated skin contact may cause slight

# MATERIAL SAFETY DATA SHEET

irritation to abraded skin. Not irritant to intact skin.

Eye Contact: Mild Irritant

Chronic effects: Repeated skin contact may cause dermatitis.

Medical Conditions Aggravated by Exposure:

## **IV – FIRST AID MEASURES**

Emergency and First Aid Procedures:

**Ingestion:** If swallowed, wash mouth thoroughly with plenty of water and give two glasses of water to drink. Get medical attention immediately. Never give an unconscious person anything to drink.

**Inhalation:** In case of dust inhalation or breathing fumes released from heated material, remove person to fresh air. Keep him quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.

**Skin Contact:** Wash affected skin thoroughly with mild soap and plenty of water. Remove and wash contaminated clothing thoroughly before reuse. Get medical attention immediately.

**Eye Contact:** Holding the eyelids apart, flush eyes immediately with large amounts of water for at least 15 minutes. Get medical attention immediately.

**Note to Physician:** In case of ingestion induce vomiting in alert patient. No specific antidote. Treat symptomatically and supportively.

## **V – FIRE FIGHTING MEASURES**

### **FIRE AND EXPLOSION HAZARD DATA**

Flash Point: None

Flammable: No

Flammable Limits:

LEL: Not applicable

UEL: Not applicable

Auto-Ignition Temperature: Not applicable

**Extinguishing Media:** Material is not combustible. Use extinguishing media appropriate to surrounding fire conditions.

**Special Fire-fighting Procedures:** Use water spray to cool containers exposed to fire.

Minimize exposure. Do Not Breathe fumes. Contain run-off. In closed spaces, provide fire fighters with self-contained breathing apparatus (pressure-demand MSHA/NIOSH approved or equivalent) and full protective gear.

**Unusual Fire and Explosion Hazards:** Will decompose from ca. 800°C releasing poisonous and corrosive fumes of hydrogen bromide, bromide gas and sodium oxide.

## **VI – ACCIDENTAL RELEASE MEASURES**

# MATERIAL SAFETY DATA SHEET

## Steps To Be Taken In Case Material Is Spilled Or Released:

Wear respirator, chemical safety goggles, rubber gloves and boots. Sweep up, place in a bag and hold for waste disposal or possible re-use. Ventilate area and wash spill site after material pickup is complete.

## VII – HANDLING AND STORAGE

### Precautions to Be Taken in Handling and Storage:

Avoid bodily contact. Keep containers tightly closed. Keep in well-ventilated area away from incompatible materials.

## VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiratory Protection:** A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are not present. If airborne particulate is present, wear a MSHA/NIOSH approved (or equivalent) half-mask, air purifying respirator as a minimum. Air-purifying respirators should be equipped with MSHA/NIOSH approved (or equivalent) filters for protection against dusts and mists.

### Ventilation:

Provide adequate ventilation.

### Other Protective Clothing or Equipment:

**Eye Protection:** Use safety glasses (ANSI Z87.1 or approved equivalent). Wear chemical safety goggles if airborne particulates are present.

**Hand Protection:** Avoid contact with skin. When using this substance, use skin protection made of butyl rubber or natural rubber. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

**Other Protection:** Use chemically resistant apron or other impervious clothing to avoid prolonged or repeated skin contact.

**Work/ Hygienic Practices:** Safety shower and eye bath should be provided. Do not eat, drink, or smoke until after-work showering and changing clothes.

## IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: 1390°C

Vapor Pressure (mm Hg): 1 mm Hg @ 806°C

Vapor Density (Air=1): Not applicable

Solubility in Water @ 25°C: 94.6 g/100ml

Solubility in other Solvents @ 25°C: Ethanol: 7 g/100g      Methanol: 14.8 g/100g

Appearance and odor: White, Crystalline solid, odorless.

Specific Gravity (H<sub>2</sub>O=1): 3.203

Percent volatile by volume:

Melting Point: 775°C

# MATERIAL SAFETY DATA SHEET

Evaporation Rate (ether = 1): Not applicable

Viscosity: Not applicable

Decomposition Temperature: ~800°C

Molecular Weight: 102.92

## **X – STABILITY AND REACTIVITY**

Stability:         Unstable                     Stable under normal conditions

Conditions to Avoid: Avoid temperatures above 800°C

Incompatibility: Strong acids, strong oxidants, heavy metal salts; reacts explosively with bromine trifluoride.

Hazardous Decomposition or By-Products: Hydrogen bromide and sodium oxide

Hazardous Polymerization:                     May Occur                     Will Not Occur

## **XI - TOXICOLOGICAL INFORMATION**

Acute Toxicity:

Oral LD<sub>50</sub> - 4200 mg/kg (rat)

Dermal LD<sub>50</sub> - >2000 mg/kg (rabbit)

Dermal LD50 >2000 mg/kg(rat)

Eye Irritation – Slightly irritant (rabbit)

Dermal Irritation – Not irritant (rabbit)

Dermal Sensitization – Not a sensitizer(guinea pig)

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.

Target Organ Toxicity:

Reproductive and Development 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.

Carcinogenicity: Not known to be a carcinogen. Not included in NTP 7<sup>th</sup> Annual Report on Carcinogens. Not classified by IARC.

Mutagenicity: Not inducing DNA repair in cultured human epithelioid cells. Not clastogenic in human lymphocytes metaphase analysis. Not mutagenic by the Ames test.

## **XII – ECOLOGICAL INFORMATION**

Aquatic Toxicity: Sodium bromide is an inorganic salt, which fully dissociates in aquatic environment to bromide and sodium ions. It also undergoes degradation in soil to

# MATERIAL SAFETY DATA SHEET

bromide ion (no further degradation or biodegradation will occur).

Rainbow Trout (96-hour LC<sub>50</sub>) - >1000 mg/l

Bluegill sunfish (96-hour LC<sub>50</sub>) - >1000 mg/l

Avian Toxicity:

Bobwhite quail (acute oral LD<sub>50</sub>) - >2250 mg/kg

Bobwhite quail (dietary LC<sub>50</sub>) - >5633 ppm

Mallard duck (dietary LC<sub>50</sub>) - >5633 ppm

Bioaccumulative Potential: Bioaccumulation is not likely to occur since this material is highly soluble in water.

Germany, water endangering classes(WGK): 1

## **ENVIRONMENTAL HAZARDS (PR Notice 93-10)**

This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water board or Regional Office of the EPA.

## **XIII – DISPOSAL CONSIDERATIONS**

Waste Disposal Method:

Add into a large vessel containing water and drain into sewer with ample water.

Avoid access to streams, lakes or ponds. Observe all federal, state and local environmental regulations when disposing of this material.

## **XIV - TRANSPORTATION DATA**

U.S. Department of Transportation - 49 CFR

This material is not regulated as a D.O.T. Hazardous Material

Proper Shipping Name:

Hazard Class/Division Number:

ID Number:

Packing Group:

Label Required:

Placard Required:

Marine Pollutant:

Emergency Telephone Number: Chemtrec 800-424-9300

International Maritime Organization - IMDG

# MATERIAL SAFETY DATA SHEET

Not regulated

Proper Shipping Name:

Hazard Class/Division Number:

ID Number:

Packing Group:

Label Required:

Placard Required:

Marine Pollutant:

Emergency Telephone Number: Chemtrec 202-483-7616 [call collect]

## **XV - REGULATORY INFORMATION**

Workplace Classification: This product is considered non-hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SARA Title III:

Section 311/312 Categorization (40 CFR 370): This product is not a hazardous chemical under 29 CFR 1910.1200, and therefore is not covered by Title III of SARA.

Section 313 Information (40 CFR 372): This product does not contain a chemical, which is listed in Section 313 at or above de minimis concentrations.

CERCLA Information: This material contains no hazardous or extremely hazardous substance as defined by CERCLA or SARA title III, and releases are therefore not reportable.

Waste Classification: This material does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR 261.33 The toxicity characteristic, however has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

TSCA: United States: This substance is reported on the EPA TSCA inventory.

EEC No: 231-599-9

Canada: Listed in DSL

Reference:: American National Standards for Hazardous Industrial Chemicals – Material Safety Date Sheets – preparation, ANSI Z400.1-1993.

## **XVI - ADDITIONAL INFORMATION**

**ALWAYS COMPLY WITH ALL APPLICABLE INTERNATIONAL, FEDERAL, STATE AND LOCAL REGULATIONS REGARDING THE TRANSPORTATION, STORAGE, USE AND DISPOSAL OF THIS CHEMICAL.**

Due to the changing nature of regulatory requirements, the REGULATORY INFORMATION listed in Section XV of this document should NOT be considered all-inclusive or authoritative. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

# MATERIAL SAFETY DATA SHEET

The information in this MSDS was obtained from sources, which we believe are reliable. **HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS.** The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. **FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.** This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Revised: 11/19/02