

I - PRODUCT IDENTIFICATION

Product: Sodium Bromide
Chemical Family: Inorganic bromide
Formula: NaBr
CAS Number: 7647-15-6
Synonyms: Yellow Eliminator

COMPANY IDENTIFICATION

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

II – COMPOSITION, INFORMATION ON INGREDIENTS

Chemical or Common Name:	Exposure Limits	
	OSHA PEL:	ACGIH TLV:

Sodium Bromide [7647-15-6] 98%		none established
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III – HAZARDS IDENTIFICATION

Primary Route(s) of Entry:

Ingestion:
Inhalation:
Skin Contact:
Eye Contact:

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 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 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 in positive pressure mode.

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

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: Dust respirator

Ventilation:

Provide adequate ventilation.

Other Protective Clothing or Equipment:

Eye Protection: Chemical safety goggles.

Hand Protection: Protective gloves

Skin & Body Protection: Body covering clothes & boots.

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 95%: 7 g/100g Methanol: 14.8 g/100g

Appearance and odor: White, Crystalline solid, odorless.

Specific Gravity (H₂O=1): 3.203

Percent volatile by volume:

Melting Point: 775°C

Evaporation Rate (ether = 1): Not applicable

Viscosity: Not applicable

Decomposition Temperature: ~800°C

Molecular Weight: 102.92

X – STABILITY AND REACTIVITY

Stability: () Unstable (X) 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 (X) Will Not Occur

XI - TOXICOLOGICAL INFORMATION

Acute Toxicity:

Oral LD₅₀ - 4200 mg/kg (rat)

Dermal LD₅₀ - >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)

Effects of overexposure:

Ocular: Mild Irritant

Dermal: 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 inco-ordination and respiratory depression.

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 7th 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 bromide ion (no further degradation or biodegradation will occur).

Rainbow Trout (96-hour LC₅₀) - >1000 mg/l

Bluegill sunfish (96-hour LC₅₀) - >1000 mg/l

Daphnia Magma (48-hour EC₅₀) - > 1000 mg/l

Avian Toxicity:

Bobwhite quail (acute oral LD₅₀) - >2250 mg/kg

Bobwhite quail (dietary LC₅₀) - >5633 ppm

Mallard duck (dietary LC₅₀) - >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

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

Indication of danger – Not subject to labeling in accordance with EEC directives.

Canada: Listed in DSL

Australia: Listed in AICS.

Reference:: American National Standards for Hazardous Industrial Chemicals – Material Safety Data 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.

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Revised: 11/19/02