

C/D/N ISOTOPES INC.

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MATERIAL SAFETY DATA SHEET



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Sheet No. 3625

SECTION 1: PRODUCT IDENTIFICATION

Catalog No.: D-137
Product Name: Deuterium Bromide (45% w/w in D₂O)
CAS No.: 13536-59-9

SECTION 2: CHEMICAL INFORMATION (UNLABELLED)

Chemical Name: DEUTERIUM BROMIDE (45% in D₂O)
CAS No.: 10035-10-6 (HBr)
Synonyms: Deuterobromic Acid (45%); Deuterated Hydrobromic Acid

SECTION 3: HAZARDS IDENTIFICATION

Known Hazards: CORROSIVE, TOXIC, IRRITANT

SECTION 4: FIRST AID MEASURES

Skin Contact: Wash with water.
Ingestion: Give water to dilute. Medical assistance for gastric lavage.
Inhalation: Remove to fresh air, artificial respiration or oxygen if necessary.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media: Carbon dioxide, dry chemical powder, foam.
Special Fire Fighting Equipment: Wear a self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: Reacts with metals to produce hydrogen gas. Toxic HBr fumes on decomposition.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.
Spill Clean-up Methods: Provide adequate ventilation. Carefully neutralize with sodium bicarbonate solution. Carefully absorb on vermiculite and transfer to a closed container.

SECTION 7: HANDLING AND STORAGE

Usage/Handling Precautions: Fumehood to meet TLV requirements
Storage Conditions: Store at room temperature. Adequate ventilation. Avoid breathing fumes. Protect from light. Protect from moisture.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

Respiratory Protection: Self-contained breathing apparatus or chemical cartridge.
Hand Protection: Chemical-resistant gloves, solvent-resistant gloves.
Eye Protection: Wear safety goggles.
Other Protective Equipment: Protective clothing.
Other Protective Measures: Provide safety showers and eyewash station near workplace.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Colorless, pale yellow liquid		
Boiling Point (°C):	124-6	Density (g/cm³):	1.49
Vapour Density (Air = 1):	2.71	Vapour Pressure (mm Hg):	80
Volatiles (%):	100	Water Solubility (%):	100
Flash Point (°C):	Not applicable		
Autoignition Temperature (°C):	Not applicable		

SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable.
Incompatibility (Materials to Avoid):	Amines. Bases. Reducing agents.
Hazardous Decomposition Products:	HBr on combustion.

SECTION 11: TOXICOLOGICAL INFORMATION**Acute and Chronic Health Hazards**

IHL LC₅₀:	814 ppm (mouse, 1 hr.)	IPR LD₅₀:	76 mg/kg (rat)
TLV:	3 ppm (ceiling).		
Effects of Overexposure:	Corrosive. Irritation (eyes, respiratory, skin). Burning. Coughing. Edema. Headache. Nausea. Vomiting.		

SECTION 12: ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13: DISPOSAL CONSIDERATIONS**Disposal Procedures:** Via licensed disposal company. Dispose of according to federal and local regulations.**SECTION 14: TRANSPORT INFORMATION**

Contact C/D/N Isotopes Inc.

SECTION 15: REGULATORY INFORMATION**TLV:** 3 ppm (ceiling).**SECTION 16: OTHER INFORMATION**

This product is not radioactive. The data given for this product are those of the corresponding unlabelled product indicated in Section 2, unless specifically indicated otherwise. Safety data for the labelled compounds are generally unavailable but the hazards and properties are assumed to be similar or identical to those of the unlabelled compounds. While the information set forth is believed to be accurate, C/D/N ISOTOPES INC. extends no warranties with respect hereto and disclaims all liabilities from reliance thereon. All judgements as to the suitability of the data presented with respect to the use of this product are the responsibility of the purchaser and intended user.

Date: January 1, 2014

C/D/N ISOTOPES INC.

Vincent Guay, Ph.D.