



**SAFETY DATA SHEET
AMERICIUM-243 STANDARD SOLUTION**

SECTION 1: CHEMICAL PRODUCTS & COMPANY IDENTIFICATION

NBL Program Office
U. S. Department of Energy,
1 Science.gov Way,
Oak Ridge, TN 37830
1-865-576-0598

Off Hours Emergency Numbers:
1-865-576-0598
Substance: Americium-243 Standard Solution

Trade Names/Synonyms: Am 243

Description

A radioactive solution of ^{243}Am as americium nitrate in an aqueous solutions of 1 mol dm^{-3} nitric acid contained in a flame sealed glass ampoule of type ISO 9187-1-D-5-cl and nominal volume 5 ml as described in BS EN ISO 9187-1:2003

SECTION 2: HAZARDS IDENTIFICATION

Radiological Hazard

OSHA Hazards

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

GHS Label elements, including precautionary statements

Pictogram:

Signal word:

Hazard statement(s)

Precautionary statement(s)

NFPA RATINGS (SCALE 0-4): HEALTH=X FIRE=X REACTIVITY=X

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance: Americium 243 standard solution.

Other Designations:

Nitric Acid: Aqua fortis; hydronitrate; azotic acid; engraver's acid.

Americium:

Components are listed in compliance with OSHA's 29 CFR 1910.1200; for the actual values see the NIST Certificate.

Hazardous Component(s) Concentration	CAS Number	EC Number (EINECS)	Nominal Mass (%)
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Nitric Acid

Americium 243

Non-Hazardous Component(s)

SECTION 4: FIRST AID MEASURES

INHALATION:

SKIN CONTACT:

EYE CONTACT

INGESTION:

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED:

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL
TREATMENT NEEDED, IF NECESSARY

SECTION 5: FIREFIGHTING MEASURES

FIRE AND EXPLOSION HAZARD:.

EXTINGUISHING MEDIA:

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-
FIGHTERS:

SECTION 6: ACCIDENTAL RELEASE MEASURES

RADIOLOGICAL EMERGENCY PROCEDURES:

SPILL AND LEAK CONTROL:

DAMAGE TO THE RADIOACTIVE SOURCE:

SUGGESTED EMERGENCY PROTECTIVE EQUIPMENT:

SECTION 7: HANDLING AND STORAGE

Safe Handling Precautions and Storage: This material is radioactive. Store and handle in accordance with all current regulations and standards. See NRC 10 CFR 20 or state regulations. See Section 8, "Exposure Controls and Personal Protection".

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

EXPOSURE LIMITS:

Am-243:

Nitric Acid:

Engineering Controls:

Personal Protection:

Respiratory Protection:

Eye/Face Protection:

Skin and Body Protection:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:

STABILITY: _____ Stable _____ Unstable

POSSIBLE HAZARDOUS REACTIONS: .

CONDITIONS TO AVOID

INCOMPATIBLE MATERIALS:

FIRE/EXPLOSION INFORMATION:

HAZARDOUS DECOMPOSITION:

HAZARDOUS POLYMERIZATION _____ Will Not Occur _____ Will Not Occur

SECTION 11: TOXICOLOGY INFORMATION

ROUTE OF EXPOSURE: ☐ Inhalation ☐ Skin ☐ Ingestion

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS:

POTENTIAL HEALTH EFFECTS (ACUTE, CHRONIC AND DELAYED):

SKIN CONTACT:

EYE CONTACT:

INGESTION:

NUMERICAL MEASURES OF TOXICITY:

ACUTE TOXICITY:

SKIN CORROSION/IRRITATION: .

SERIOUS EYE DAMAGE/EYE IRRITATION:.

RESPIRATORY SENSITIZATION:.

SKIN SENSITIZATION:.

GERM CELL MUTAGENICITY:.

CARCINOGENICITY.

LISTED AS A CARCINOGEN/POTENTIAL CARCINOGEN ☐Yes ☐No

RADIOLOGICAL HAZARD:

REPRODUCTIVE TOXICITY.

SPECIFIC TARGET ORGAN TOXICITY, SINGLE EXPOSURE:.

SPECIFIC TARGET ORGAN TOXICITY, REPEATED EXPOSURE:.

ASPIRATION HAZARD:.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

Nitric acid: Fish, hooknose or pogge (*Agonus cataphractus*) LC50: 100 mg/L to 330 mg/L (48 h)

Americium-243:

PERSISTENCE AND DEGRADABILITY:

BIOACCUMULATIVE POTENTIAL:

MOBILITY IN SOIL:

OTHER ADVERSE EFFECTS:

SECTION 13: DISPOSAL INFORMATION

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SECTION 14: TRANSPORTATION INFORMATION

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SECTION 15: REGULATORY INFORMATION

U.S. Regulations:
State Regulations:

U.S. TSCA Inventory:
TSCA 12(b), Export Notification:
Canadian Regulations:

SECTION 16: OTHER INFORMATION

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Sources: