



Barium Nitrite		Pricing >
Linear Formula	Ba(NO ₂) ₂	
Pubchem CID	166820	
MDL Number	N/A	
EC No.	236-709-9	
IUPAC Name	barium(2+); dinitrite	
SMILES	N(=O)[O-].N(=O)[O-].[Ba+2	
Inchl Identifier	InChI=1S/Ba.2HNO2/c;2*2-1-3/h;2*(H,2,3)/q+2;;/p-2	
Inchl Key	GJTDJAPHKDIQIQ-UHFFFAOYSA-L	
Signal Word	Warning	
Hazard Statements	O, Xi	
Hazard Codes	H272-H302+H332	
Risk Codes	N/A	
Safety Statements	N/A	
Transport Information	UN3087 5.1+6.1/PG III	
GHS Pictograms	<p>GHS07 Exclamation Point</p>  <p>GHS03 Oxidizer</p> 	

[Create Printable PDF](#)

SAFETY DATA SHEET

Date Accessed: 05/03/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #13465-94-6

Relevant identified uses of the substance:
Scientific research and development

Supplier details:
American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:
Domestic, North America +1 800-424-9300
International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)
GHS03 Flame over circle
Ox. Sol. 3 H272 May intensify fire; oxidizer.
GHS07
Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H332 Harmful if inhaled.
Hazards not otherwise classified No data available
GHS label elements, including precautionary statements



Hazard pictograms
GHS03 GHS07
Signal word Warning
Hazard statements
H272 May intensify fire; oxidizer.
H302+H332 Harmful if swallowed or if inhaled.
Precautionary statements
P221 Take any precaution to avoid mixing with combustibles.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220 Keep/Store away from clothing/combustible materials.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P501 Dispose of contents/container in accordance

with local/regional/national/international regulations.
WHMIS classification
C - Oxidizing materials
D1B - Toxic material causing immediate and serious
toxic effects
Classification system
HMIS ratings (scale 0-4)
(Hazardous Materials Identification System)
HEALTH
FIRE
REACTIVITY
2
0
1
Health (acute effects) = 2
Flammability = 0
Physical Hazard = 1
Other hazards
Results of PBT and vPvB assessment
PBT: N/A
vPvB: N/A

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
CAS No. / Substance Name:
13465-94-6 Barium nitrite
Identification number(s):
EC number: 236-709-9
Index number: 056-002-00-7

SECTION 4. FIRST AID MEASURES

Description of first aid measures
If inhaled:
Supply patient with fresh air. If not breathing, provide
artificial respiration. Keep patient warm.
Seek immediate medical advice.
In case of skin contact:
Immediately wash with soap and water; rinse
thoroughly.
Seek immediate medical advice.
In case of eye contact:
Rinse opened eye for several minutes under running
water. Consult a physician.
If swallowed:
Seek medical treatment.
Information for doctor
Most important symptoms and effects, both acute and
delayed:

No data available
Indication of any immediate medical attention and special treatment needed:
No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing agents Product is not flammable. Use fire-fighting measures that suit the surrounding fire.
For safety reasons unsuitable extinguishing agents
Halocarbon extinguisher
Special hazards arising from the substance or mixture
This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.
If this product is involved in a fire, the following can be released:
Nitrogen oxides (NO_x)
Barium oxide
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Environmental precautions: Do not allow material to be released to the environment without official permits.
Methods and materials for containment and cleanup:
Dispose of contaminated material as waste according to section 13.
Ensure adequate ventilation.
Prevention of secondary hazards:
Acts as an oxidizing agent on organic materials such as wood, paper and fats
Keep away from combustible material.
Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7. HANDLING AND STORAGE

Handling

Precautions for safe handling

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Information about protection against explosions and fires:

Substance/product can reduce the ignition temperature of flammable substances.

This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:

Store away from flammable substances.

Store away from reducing agents.

Do not store with organic materials.

Store away from metal powders.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed containers.

Specific end use(s) No data available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

Barium, and soluble compounds, as Ba
mg/m³

ACGIH TLV 0.5; Not classified as a human carcinogen

Austria MAK 0.5

Belgium TWA 0.5

Denmark TWA 0.5

Finland TWA 0.5

Germany MAK 0.5 (total dust)

Hungary 0.5-STEL

Ireland TWA 0.5

Korea TLV 0.5
Netherlands MAC-TGG 0.5
Norway TWA 0.5
Poland TWA 0.5; 1.5-STEL
Sweden TWA 0.5
Switzerland MAK-W 0.5
United Kingdom LTEL 0.5
USA PEL 0.5
Additional information: No data
Exposure controls
Personal protective equipment
Follow typical protective and hygienic practices for handling chemicals.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Maintain an ergonomically appropriate working environment.
Breathing equipment: Use suitable respirator when high concentrations are present.
Protection of hands:
Impervious gloves
Inspect gloves prior to use.
The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.
Penetration time of glove material (in minutes) No data available
Eye protection: Safety glasses
Body protection: Protective work clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:

Form: Crystalline

Color: White

Odor: Weak

Odor threshold: No data available.

pH: N/A

Melting point/Melting range: 115 °C (239 °F) (dec)

Boiling point/Boiling range: No data available

Sublimation temperature / start: No data available

Flash point: N/A

Flammability (solid, gas) Contact with combustible material may cause fire.

Ignition temperature: No data available

Decomposition temperature: No data available

Autoignition: No data available.

Danger of explosion: No data available.

Explosion limits:

Lower: No data available
Upper: No data available
Vapor pressure: N/A
Density at 20 °C (68 °F): 3.173 g/cm³ (26.479 lbs/gal)
Relative density No data available.
Vapor density N/A
Evaporation rate N/A
Solubility in / Miscibility with
Water at 20 °C (68 °F): 630 g/l
Partition coefficient (n-octanol/water): No data available.
Viscosity:
Dynamic: N/A
Kinematic: N/A
Other information No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity May intensify fire; oxidizer.
Chemical stability Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:
Decomposition will not occur if used and stored according to specifications.
Possibility of hazardous reactions
Reacts with reducing agents
Reacts with flammable substances
Conditions to avoid No data available
Incompatible materials:
Amines
Cyanides
Flammable substances
Reducing agents
Organic materials
Metal powders
Hazardous decomposition products:
Nitrogen oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity:
Harmful if inhaled.
Harmful if swallowed.
LD/LC50 values that are relevant for classification: No data
Skin irritation or corrosion: Irritant to skin and mucous membranes.
Eye irritation or corrosion: Irritating effect.
Sensitization: No sensitizing effects known.

Germ cell mutagenicity: No effects known.
Carcinogenicity:
EPA-D: Not classifiable as to human carcinogenicity:
inadequate human and animal evidence of
carcinogenicity or no data are available.
EPA-NL: Not likely to be carcinogenic to humans.
ACGIH A4: Not classifiable as a human carcinogen:
Inadequate data on which to classify the agent in
terms of its carcinogenicity in humans and/or animals.
Reproductive toxicity: No effects known.
Specific target organ system toxicity - repeated
exposure: No effects known.
Specific target organ system toxicity - single
exposure: No effects known.
Aspiration hazard: No effects known.
Subacute to chronic toxicity:
Barium compounds may cause severe gastroenteritis,
including abdominal pain, vomiting and diarrhea,
tremors, faintness, paralysis of the arms and legs, and
slow
or irregular heartbeat. Severe cases may produce
collapse and death due to respiratory failure. Soluble
barium compounds are more likely to cause these
effects
than insoluble compounds. Inhalation of fumes may
cause sore throat, coughing, labored breathing, and
irritation of the respiratory tract as well as the above
symptoms.
Subacute to chronic toxicity: No effects known.
Subacute to chronic toxicity:
Exposure to nitrites may cause nausea, vomiting,
cyanosis, and collapse into a coma. Small doses
cause a fall in blood pressure, rapid pulse, muscle
weakness,
headache and visual disturbances.
Additional toxicological information: To the best of our
knowledge the acute and chronic toxicity of this
substance is not fully known.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity: No data available

Persistence and degradability No data available

Bioaccumulative potential No data available

Mobility in soil No data available

Additional ecological information:

Do not allow material to be released to the
environment without official permits.

Do not allow undiluted product or large quantities to
reach groundwater, water courses, or sewage
systems.

Avoid transfer into the environment.

Results of PBT and vPvB assessment
PBT: N/A
vPvB: N/A
Other adverse effects No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Recommendation Consult official regulations to ensure proper disposal.
Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

UN-Number
DOT, IMDG, IATA UN3087
UN proper shipping name
DOT Oxidizing solid, toxic, n.o.s. (barium nitrite)
IMDG, IATA OXIDIZING SOLID, TOXIC, N.O.S. (barium nitrite)
Transport hazard class(es)
DOT
Class 5.1 Oxidising substances.
Label 54.1+6.1
Class 5.1 (OT2) Oxidizing substances
Label 5.1+6.1
IMDG, IATA
Class 5.1 Oxidising substances.
Label 5.1+6.1
Packing group
DOT, IMDG, IATA III
Environmental hazards: N/A
Special precautions for user Warning: Oxidizing substances
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code N/A
Transport/Additional information:
DOT
Marine Pollutant (DOT): No
Item:
UN "Model Regulation": UN3087, Oxidizing solid, toxic, n.o.s. (barium nitrite), 5.1 (6.1), III

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental

regulations/legislation specific for the substance or mixture
GHS label elements, including precautionary statements
Hazard pictograms
GHS03 GHS07
Signal word Warning
Hazard statements
H272 May intensify fire; oxidizer.
H302+H332 Harmful if swallowed or if inhaled.
Precautionary statements
P221 Take any precaution to avoid mixing with combustibles.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220 Keep/Store away from clothing/combustible materials.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
National regulations
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.
All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL).
SARA Section 313 (specific toxic chemical listings)
7787-38-4 Barium nitrite
California Proposition 65
Prop 65 - Chemicals known to cause cancer
Substance is not listed.
Prop 65 - Developmental toxicity Substance is not listed.
Prop 65 - Developmental toxicity, female Substance is not listed.
Prop 65 - Developmental toxicity, male Substance is not listed.
Information about limitation of use:
For use only by technically qualified individuals.
This product contains barium and is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.
Other regulations, limitations and prohibitive regulations
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.
Substance is not listed.
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the

market and use must be observed.
Substance is not listed.
Annex XIV of the REACH Regulations (requiring
Authorisation for use) Substance is not listed.
Chemical safety assessment: A Chemical Safety
Assessment has not been carried out.

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.
