

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Identifier: Bismuth(III) Isopropoxide

Product Code: BI-IP-01-P

CAS Number: 15049-67-9

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:
+1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

Specific target organ toxicity (single exposure) Category 3

Flammable solid Category 2

Label elements

Signal word Warning

Hazard statements Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation

Version 1

Flammable solid



Symbols/Pictograms

Precautionary Statements - Prevention Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Ground/bond container and receiving equipment
Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
In case of fire: Use CO₂, dry chemical, or foam for extinction
Precautionary Statements - Storage Store in a well-ventilated place. Keep container tightly closed
Store locked up
Precautionary Statements - Disposal Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
Hazards not otherwise classified (HNOC) N/A
Other Information
NFPA Rating:
Health: -
Flammability: -
Stability: -
Physical and chemical - properties
HMIS Classification:
Health: 1
Flammability: 2
Physical: 1
Personal protection -

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No 15049-67-9
Molecular Weight 386.24
Formula C₉H₂₁BiO₃
Chemical Name CAS No Weight % Oral LD₅₀ Dermal LD₅₀ Inhalation LC₅₀
Bismuth isopropoxide 15049-67-9 >98 - - -

SECTION 4. FIRST AID MEASURES

First Aid Measures
General advice Immediate medical attention is required. In case of accident or unwellness, seek

medical

advice immediately (show directions for use or safety data sheet if possible). If symptoms persist, call a physician.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.

Skin Contact Wash off immediately with plenty of water. Wash contaminated clothing before reuse. If skin

irritation persists, call a physician. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation Remove to fresh air If symptoms persist, call a physician Artificial respiration and/or oxygen may be necessary Call a physician Immediate medical attention is not required Move to fresh air in case of accidental inhalation of vapors

Ingestion Immediate medical attention is not required. Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider Remove all sources of ignition. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms No data available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media In case of fire: Use CO₂, dry chemical, or foam for extinction.

Unsuitable Extinguishing Media DO NOT USE WATER.

Specific hazards arising from the chemical

Specific hazards arising from the chemical

No data available.

Hazardous combustion products Carbon oxides.

Explosion data

Sensitivity to Mechanical Impact No data available.

Sensitivity to Static Discharge No data available.

Protective equipment and precautions for firefighters

Protective equipment and precautions

for firefighters

Wear self contained breathing apparatus for fire fighting if necessary. In the event of fire and/or explosion do not breathe fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate

ventilation, especially in confined areas. Use personal protective equipment as required.

Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do

not flush into surface water or sanitary sewer system. See Section 12 for additional

Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp

to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks,

flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities Conditions Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Store at room temperature.

Incompatible materials Strong oxidizing agents. Water.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and Body Protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid

Appearance powder

Odor No data available

Property Values

Melting point/freezing point No data available

Boiling point No data available

Flash point No data available

Density No data available

Evaporation rate No data available

Upper flammability limits No data available

Lower flammability limit No data available

Vapor pressure No data available

Vapor density No data available

Specific gravity No data available

Water solubility No data available

Solubility in other solvents No data available

Partition coefficient No data available

Autoignition temperature No data available

Decomposition temperature No data available

Kinematic viscosity No data available

Explosive properties No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity N/A

Chemical stability Stable under recommended storage conditions.

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization No data available.

Conditions to avoid Heat, flames and sparks. Keep away from any possible contact with water, because of violent reaction and possible flash fire.

Incompatible materials Strong oxidizing agents. Water.

Hazardous Decomposition Products Carbon oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation No data available.

Eye contact No data available.

Skin Contact No data available.

Ingestion No data available.

Information on toxicological effects

Symptoms No data available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Avoid repeated exposure.

Numerical measures of toxicity - Product Information

Unknown acute toxicity No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity May cause long lasting harmful effects to aquatic life
100% of the mixture consists of component(s) of unknown hazards to the aquatic environment.
Persistence and degradability No data available.
Bioaccumulation No data available.
Mobility No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging Do not reuse container.
Other Information Waste codes should be assigned by the user based on the application for which the product was used.
US EPA Waste Number D001

SECTION 14. TRANSPORT INFORMATION

DOT
UN/ID no UN3181
Hazard Class 4.1
Packing Group III
Proper shipping name Metal salts of organic compounds, flammable, n.o.s.
Description UN3181, Metal salts of organic compounds, flammable, n.o.s. (Bismuth isopropoxide), 4.1, III
Emergency Response Guide Number 133
IMDG
UN/ID no UN3181
Hazard Class 4.1
Packing Group III
Proper shipping name Metal salts of organic compounds, flammable, n.o.s.
Description UN3181, Metal salts of organic compounds, flammable, n.o.s. (Bismuth isopropoxide), 4.1, III
Special Provisions 223, 274
EmS-No F-A, S-I
IATA
UN/ID no UN3181
Hazard Class 4.1
Packing Group III
Proper shipping name Metal salts of organic compounds, flammable, n.o.s.
Description UN3181, Metal salts of organic compounds, flammable, n.o.s. (Bismuth isopropoxide), 4.1, III

SECTION 15. REGULATORY INFORMATION

International Inventories
All of the components in the product are on the following Inventory lists

No data available

X - Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard Yes

Chronic Health Hazard No

Fire hazard No

Sudden release of pressure hazard No

Reactive hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

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.