

<u>Triphenylbismuth</u>		Pricing >
Linear Formula	$Bi(C_6H_5)_3$	
Pubchem CID	11774	
MDL Number	MFCD00014064	
EC No.	210-033-4	
IUPAC Name	triphenylbismuthane	
Beilstein/Reaxys No.	N/A	
SMILES	C1=CC=C(C=C1)[Bi](C2=CC=CC=C2)C3=CC=CC=C3	
Inchl Identifier	InChI=1S/3C6H5.Bi/c3*1-2-4-6-5-3-1;/h3*1-5H;	
Inchl Key	ZHXAZZQXWJJBHA-UHFFFAOYSA-N	

Signal Word	Warning	
<b>Hazard Statements</b>	H302-H312-H332	
Hazard Codes	Xn	
Risk Codes	20/21/22	
Safety Statements	36/37	
RTECS Number	N/A	
Transport Information	NONH for all modes of transport	
WGK Germany	3	

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# **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 #603-33-8

#### 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) GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Hazards not otherwise classified

No data available

GHS label elements

GHS label elements, including precautionary

statements

Hazard pictograms



GHS07

Signal word: Warning Hazard statements

H302 Harmful if swallowed.

Precautionary statements

P264

Wash thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P301+P312 IF SWALLOWED: Call a POISON

CENTER/doctor/.../if you feel unwell.

P330

Rinse mouth.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification

Not controlled

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

Health (acute effects) = 2

Flammability = 1

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:
603-33-8 Triphenylbismuth
Identification number(s):
EC number: 210-033-4

### **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

Carbon dioxide, extinguishing powder or water spray.

Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Bismuth 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 product to enter drains, sewage systems, or other water courses.

Methods and materials for containment and cleanup:

Dispose of contaminated material as waste according to section 13.

Prevention of secondary hazards:

No special measures required.

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

Handle under dry protective gas.

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:

No data available

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 water/moisture.

Do not store together with acids.

Store away from strong bases.

Store away from oxidizing agents.

Store away from halogens.

Further information about storage conditions:

Store under dry inert gas.

This product is moisture sensitive.

Keep container tightly sealed.

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

Protect from humidity and water.

# 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:

None.

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.

Recommended filter device for short term use: Use a respirator with type P100 (USA) or P3 (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if airpurifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.

Protection of hands:

Impervious gloves

Inspect gloves prior to use.

Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer.

Material of gloves

Nitrile rubber, NBR

Penetration time of glove material (in minutes)

480

Glove thickness

0.11 mm

Eye protection: Safety glasses

Body protection: Protective work clothing.

# SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance: Form: Powder

Color: White to off-white Odor: No data available

Odor threshold: No data available.

pH: N/A

Melting point/Melting range: 76-81 °C (169-178 °F) Boiling point/Boiling range: 242 °C (468 °F) (14mm) Sublimation temperature / start: No data available

Flammability (solid, gas): No data available. 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): 1.585 g/cm3 (13.227 lbs/gal)

Relative density: No data available.

Vapor density: N/A Evaporation rate: N/A

Solubility in Water (H<sub>2</sub>O): Insoluble

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

No data available

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 strong oxidizing agents

Conditions to avoid

No data available

Incompatible materials:

Acids

Water/moisture

**Bases** 

Oxidizing agents

Halogens
Hazardous decomposition products:
Carbon monoxide and carbon dioxide
Bismuth oxide

# SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

Harmful if swallowed.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

LD/LC50 values that are relevant for classification: No data

Skin irritation or corrosion: May cause irritation Eye irritation or corrosion: May cause irritation Sensitization: No sensitizing effects known. Germ cell mutagenicity: No effects known.

Carcinogenicity:

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

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: No effects known.

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 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, ADN, IMDG, IATA

N/A

UN proper shipping name

DOT, ADN, IMDG, IATA

N/A

Transport hazard class(es)

DOT, ADR, ADN, IMDG, IATA

Class

N/A

Packing group

DOT, IMDG, IATA

N/A

Environmental hazards:

N/A

Special precautions for user

N/A

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code

N/A

Transport/Additional information:

DOT

Marine Pollutant (DOT):

No

# SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

GHS GHS label elements, including precautionary statements

Hazard pictograms

GHS07

Signal word: Warning Hazard statements

H302 Harmful if swallowed. Precautionary statements

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P501

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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 Domestic Substances List (DSL).

This product is subject to ITAR, International Traffic in

Arms Regulations. All U.S. Department of State

regulations must be followed. (See Code of Federal

Regulations, Title 22)

SARA Section 313 (specific toxic chemical listings)

Substance is not listed.

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.

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.