

H372: Causes damage to organs (Skin, Respiratory Tract) through prolonged or repeated exposure if inhaled
H411: Toxic to aquatic life with long lasting effects

Precautionary Statement(s)

P202 Do not handle until all safety precautions have been read and understood.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P301 + P310 + P330: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

2.4 Additional Information

Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Hazardous ingredient(s)	CAS No.	EC No.	%W/W	Hazard Statement(s)
Bis(10-hydroxybenzo[h]quinolinato)beryllium	148896-39-3	Not Applicable	≤100	Acute Tox. 3 H301 Acute Tox. 2 H330 Skin Irrit. 2 H315 Eye Irrit. 2A H319 Skin Sens. 1 H317 Carc. 1B H350i STOT SE 3 H335 STOT RE 1 H372 Aquatic Chronic 2 H411

3.2 Mixtures

Not applicable.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General Advice First aiders should ensure they have taken adequate steps to protect themselves from exposure (see Section 8 for recommended personal protection equipment) Show this safety data sheet to the doctor in attendance.

Inhalation Remove person to fresh air and keep comfortable for breathing. If not breathing give artificial respiration. Call a POISON CENTER or doctor/physician.

Skin Contact Wash with soap and flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a POISON CENTER or doctor/physician.

Eye Contact Flush with copious amounts of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician.

Ingestion Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed, are included on labelling (Section 2.2) and in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media As appropriate for surrounding fire.
Unsuitable extinguishing media As appropriate for surrounding fire.

5.2 Special hazards arising from the substance or mixture

Carbon oxides
Nitrogen oxides (NOx)
Beryllium oxides

5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures**
Follow safe handling advice and personal protective equipment recommendations (as per section 8). Provide adequate ventilation.
- 6.2 Environmental precautions**
Avoid release to the environment.
- 6.3 Methods and material for containment and cleaning up**
Sweep up spilled substance - avoid making dust. Use vacuum equipment for collecting spilt materials, where practicable. Dispose of contents in accordance with local, state or national legislation.
- 6.4 Reference to other sections**
See Also Section 8, 13.

SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling**
Advice on safe handling: Avoid inhalation, ingestion, and contact with skin and eyes. Use only in a well-ventilated area. Wear protective clothing as per section 8.
Hygiene measures: Keep away from food and drink. Wash hands after handling, before breaks, and at the end of workday.
- 7.2 Conditions for safe storage, including any incompatibilities**
Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Storage temperature: Ambient.
Storage life: Stable under normal conditions.
Incompatible materials: None known.
- 7.3 Specific end use(s)**
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters**
8.1.1 Occupational Exposure Limits
UK – EH40 Workplace Exposure Limits (WEL).

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Beryllium and beryllium compounds (as Be)	148896-39-3		0.002			

Region: EU, United Kingdom
Source: EU Occupational Exposure Limits, UK Workplace Exposure Limits EH40/2005 (Third edition, published 2018)

- 8.2 Exposure controls**
 - 8.2.1. Appropriate engineering controls: Ensure adequate ventilation and/or exhaust. A washing facility/water for eye and skin cleaning purposes should be present.
 - 8.2.2. Personal protection equipment
 - Eye Protection: Wear eye protection with side protection tested and approved under appropriate government standards such as EN166 (EU).
 - Hand protection: Handle with gloves. Gloves must be inspected prior to use and proper glove removal techniques should be used. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.
 - Body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
 - Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls.
 - Thermal hazards: None known.
 - 8.2.3. Environmental Exposure Controls: Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties**
Physical State: Solid: Powder/Crystals.
Colour: Yellow.
Odour: Not known.
Odour threshold: Not known.
Melting point/freezing point: 368 °C (lit.)
Initial boiling point and boiling range: Not known.
Flammability: Not known.
Lower and upper explosion limit: Not known.
Flash Point: Not known.

Auto-ignition temperature (°C)	Not known.
Decomposition temperature (°C)	Not known.
pH	Not known.
Kinematic viscosity	Not known.
Solubility(ies)	Solubility (Water): Not known. Solubility (Other): Not known.
Partition coefficient: n-octanol/water (log value)	Not known.
Vapour pressure	Not known.
Density	Not known.
Relative density	Not known.
Relative vapour density	Not known.
Particle characteristics	Not known.
9.2 Other information	None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	None anticipated.
10.2 Chemical Stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	Not known.
10.4 Conditions to avoid	Not known.
10.5 Incompatible materials	Not known.
10.6 Hazardous decomposition products	In the event of fire: see Section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion	Toxic if swallowed. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2).
Acute toxicity - Skin Contact	No data available.
Acute toxicity - Inhalation	Fatal if inhaled. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2).
Skin corrosion/irritation	Causes skin irritation. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2).
Serious eye damage/irritation	Causes serious eye irritation. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2).
Skin sensitization data	No data available.
Respiratory sensitization data	No data available.
Germ cell mutagenicity	No data available.
Carcinogenicity	No data available.
Reproductive toxicity	No data available.
Lactation	No data available.
STOT - single exposure	May cause respiratory irritation. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2).
STOT - repeated exposure	Causes damage to organs through prolonged or repeated exposure (Skin, Respiratory Tract). Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2).
Aspiration hazard	No data available.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties	None known.
11.2.2. Information on other hazards	None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

	Toxic to aquatic life with long lasting effects. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2).
Toxicity - Aquatic invertebrates	Not known.
Toxicity - Fish	Not known.
Toxicity - Algae	Not known.
Toxicity - Sediment Compartment	Not known.
Toxicity - Terrestrial Compartment	Not known.

12.2 Persistence and Degradation

Not known.

12.3 Bioaccumulative potential	Not known.
12.4 Mobility in soil	Not known.
12.5 Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
12.6 Endocrine disrupting properties	Not known.
12.7 Other adverse effects	Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimor or incinerator.
13.2 Additional Information	Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number	1566
UN No.	1566
14.2 UN proper shipping name	BERYLLIUM COMPOUND, N.O.S.
UN proper shipping name	BERYLLIUM COMPOUND, N.O.S.
14.3 Transport hazard class(es)	
ADR/RID	6.1
IMDG	6.1
IATA	6.1
14.4 Packing group	II
Packing group	II
14.5 Environmental hazards	Not classified as a Marine Pollutant.
Environmental hazards	Not classified as a Marine Pollutant.
14.6 Special precautions for user	Not known.
Special precautions for user	Not known.
14.7 Maritime transport in bulk according to IMO instruments	Not known.
	Not known.

SECTION 15: REGULATORY INFORMATION

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

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation Not listed

REACH: ANNEX XIV list of substances subject to authorisation Not listed

REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Not listed

Community Rolling Action Plan (CoRAP) Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants Not listed

Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer Not listed

Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals Not listed

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A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Acronyms

ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS : Chemical Abstracts Service
CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL : Derived No Effect Level
EC : European Community
EINECS : European Inventory of Existing Commercial Chemical Substances
IATA : International Air Transport Association
IBC : Intermediate Bulk Container
ICAO : International Civil Aviation Organization
IMDG : International Maritime Dangerous Goods
LTEL : Long term exposure limit
PBT : Persistent, Bioaccumulative and Toxic
PNEC : Predicted No Effect Concentration
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
RID : Regulations concerning the International Carriage of Dangerous Goods by Rail
STEL : Short term exposure limit
STOT : Specific Target Organ Toxicity
UN : United Nations
vPvB : very Persistent and very Bioaccumulative

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