According to REACH Regulations (EC) 1907/2006 and (EU) 2020/878

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>GK1240</td>
</tr>
<tr>
<td>Product name</td>
<td>Beryllium fluoride, 33% (w/w) aqueous solution</td>
</tr>
<tr>
<td>CAS number</td>
<td>7787-49-7</td>
</tr>
<tr>
<td>EINECS</td>
<td>232-118-5</td>
</tr>
<tr>
<td>Physical form</td>
<td>liquid, mixture</td>
</tr>
<tr>
<td>REACH</td>
<td>A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.</td>
</tr>
</tbody>
</table>

1.2 Relevant identified uses of the substance or mixture and uses advised against

PC21: Laboratory chemicals.

1.3 Details of the supplier of the safety data sheet

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company name</td>
<td>Glentham Life Sciences Ltd</td>
</tr>
<tr>
<td>Unit 5 Leafield Way</td>
<td>Telephone : +44 (0) 1225 667 798</td>
</tr>
<tr>
<td>Corsham SN13 9SW</td>
<td>Fax : +44 (0) 2033 978 909</td>
</tr>
<tr>
<td>Email : <a href="mailto:info@glentham.com">info@glentham.com</a></td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Web : <a href="http://www.glentham.com">www.glentham.com</a></td>
</tr>
</tbody>
</table>

1.4 Emergency telephone number

Emergency telephone : NHS Direct 111 (UK, 24 hours), 112 (EU, 24 Hours), +44 (0) 1225 667 798 (09.00 – 17.00 GMT) number

2. Hazards identification

2.1 Classification of the substance or mixture

Classification under CLP according to (EC) 1272/2008

<table>
<thead>
<tr>
<th>Code</th>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H301</td>
<td></td>
<td>Acute Tox. 3</td>
</tr>
<tr>
<td>H311</td>
<td></td>
<td>Acute Tox. 3</td>
</tr>
<tr>
<td>H314</td>
<td></td>
<td>Skin Corr. 1B</td>
</tr>
<tr>
<td>H330</td>
<td></td>
<td>Acute Tox. 1</td>
</tr>
<tr>
<td>H350</td>
<td></td>
<td>Carc. 1B</td>
</tr>
<tr>
<td>H372</td>
<td></td>
<td>STOT RE 1</td>
</tr>
<tr>
<td>H411</td>
<td></td>
<td>Aquatic Chronic 2</td>
</tr>
</tbody>
</table>

2.2 Label elements

Label elements under CLP according to (EC) 1272/2008

Pictograms

<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS05</td>
<td></td>
</tr>
<tr>
<td>GHS06</td>
<td></td>
</tr>
<tr>
<td>GHS08</td>
<td></td>
</tr>
<tr>
<td>GHS09</td>
<td></td>
</tr>
</tbody>
</table>

Signal words

Danger

Hazard statements

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H330</td>
<td>Fatal if inhaled</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer</td>
</tr>
<tr>
<td>H372</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

Precautionary statements

P260 | Do not breathe dust/fume/gas/mist/vapors/spray. |
P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER/doctor/... |
P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse SKIN with water [or shower]. |
P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
P305+P351+P338
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P308+P313
IF exposed or concerned: Get medical advice/attention.
P310
Immediately call a POISON CENTER or doctor/physician.
P361
Take off immediately all contaminated clothing.
P264
Do not breathe fume.

2.3 Other hazards
PBT
This substance is not identified as a PBT substance.

3.0 Composition/information on ingredients

3.2 Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Identifier</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beryllium fluoride</td>
<td>CAS: 7787-49-7 EC: REACH: Not applicable</td>
<td>33</td>
<td>H301, Acute Tox. 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H315, Skin Irr. 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H317, Skin Sens. 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H319, Eye Irr. 2A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H330, Acute Tox. 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H335, STOT SE 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H350, Carc. 1B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H372, STOT RE 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H411, Aquatic Chronic 2</td>
</tr>
</tbody>
</table>

4. First aid measures

4.1 Description of first aid measures

Skin contact
Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Remove all contaminated clothes and footwear immediately unless stuck to skin. Transfer to hospital if there are burns or symptoms of poisoning. Wash immediately with plenty of soap and water.

Eye contact
Transfer to hospital for specialist examination. Bathe the eye with running water for 15 minutes.

Ingestion
Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, give half a litre of water to drink immediately. If unconscious and breathing is OK, place in the recovery position. If unconscious, check for breathing and apply artificial respiration if necessary. Transfer to hospital as soon as possible. Wash out mouth with water.

Inhalation
If breathing becomes bubbly, have the casualty sit and provide oxygen if available. If unconscious, ensure the casualty sits or lies down. If unconscious and breathing is OK, place in the recovery position. If unconscious, check for breathing and apply artificial respiration if necessary. Transfer to hospital as soon as possible. Consult a doctor. Remove casualty from exposure ensuring one's own safety whilst doing so.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact
Absorption through the skin may be fatal. Blistering may occur. Irritation or pain may occur at the site of contact. Progressive ulceration will occur if treatment is not immediate. There may be mild irritation at the site of contact. There may be redness or whiteness of the skin in the area of exposure.

Eye contact
Corneal burns may occur. May cause permanent damage. The eyes may water profusely. There may be irritation and redness. There may be severe pain.

Ingestion
Blood may be vomited. Convulsions may occur. Corrosive burns may appear around the lips. There may be bleeding from the mouth or nose. There may be irritation of the throat. There may be loss of consciousness. There may be soreness and redness of the mouth and throat. There may be vomiting.

Inhalation
Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions may occur. Exposure may cause coughing or wheezing. There may be irritation of the throat with a feeling of tightness in the chest. There may be loss of consciousness. There may be shortness of breath with a burning sensation in the throat. There may be vomiting.

Delayed / immediate effects
Convulsions may occur. Immediate effects can be expected after short-term exposure. There may be bleeding from the mouth or nose. There may be loss of consciousness.
4.3 Indication of any immediate medical attention and special treatment needed
Immediate / special treatment
Do not induce vomiting. Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. Eye bathing equipment should be available on the premises.

5. Fire-fighting measures
5.1 Extinguishing media
Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2 Special hazards arising from the substance or mixture
Exposure hazards
Corrosive. In combustion emits toxic fumes. Toxic.

5.3 Advice for fire-fighters
Wear protective clothing to prevent contact with skin and eyes. Wear self-contained breathing apparatus.

6. Accidental release measures
6.1 Personal precautions, protective equipment and emergency procedures
Personal precautions
Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Do not create dust. Evacuate the area immediately. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Notify the police and fire brigade immediately. Refer to section 8 of SDS for personal protection details.

6.2 Environmental precautions
Alert the neighbourhood to the presence of fumes or gas. Do not discharge into drains or rivers.

6.3 Methods and material for containment and cleaning up
Clean-up procedures
Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4 Reference to other sections
Refer to section 8 of SDS.

7. Handling and storage
7.1 Precautions for safe handling
Handling requirements
Avoid direct contact with the substance. Avoid the formation or spread of dust in the air. Do not handle in a confined space. Ensure there is exhaust ventilation of the area. Ensure there is sufficient ventilation of the area.

7.2 Conditions for safe storage, including any incompatibilities
Storage conditions
Avoid contact with water or humidity. Keep container tightly closed. Store in cool, well ventilated area.

7.3 Specific end use(s)
No data available.

8. Exposure controls/personal protection
8.1 Control parameters
Workplace exposure limits
No workplace exposure limit control parameters set

8.2 Exposure controls
Engineering measures
Ensure there is exhaust ventilation of the area. Ensure there is sufficient ventilation of the area.
Respiratory protection
- Particle filter class P1 (EN143). Respiratory protective device with particle filter. Self-contained breathing apparatus must be available in case of emergency.

Hand protection
- Protective gloves.

Eye protection
- Safety glasses with side-shields. Tightly fitting safety goggles. Ensure eye bath is to hand. Safety glasses.

Skin protection
- Protective clothing.

9. Physical and chemical properties
9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available.</td>
</tr>
<tr>
<td>Melting point/Freezing point</td>
<td>555 °C</td>
</tr>
<tr>
<td>Boiling point/initial boiling point/boiling range</td>
<td>1160 °C</td>
</tr>
<tr>
<td>Flammability</td>
<td>No data available.</td>
</tr>
<tr>
<td>Lower/Upper explosion limit</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH</td>
<td>No data available.</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No data available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available.</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water</td>
<td>No data available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Density/relative density</td>
<td>1.986</td>
</tr>
<tr>
<td>Relative vapour pressure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Particle characteristics</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

9.2 Other information
- No data available.

10. Stability and reactivity
10.1 Reactivity
- Stable under recommended transport or storage conditions.

10.2 Chemical stability
- Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions
- Decomposition may occur on exposure to conditions or materials listed below. Hazardous reactions will not occur under normal transport or storage conditions.

10.4 Conditions to avoid

10.5 Incompatible materials

Materials to avoid
- Strong acids. Strong oxidising agents.

11. Toxicological information
11.1 Information on toxicological effects

a) Acute toxicity
- No data available.

b) Skin corrosion/irritation
- Skin corrosion/irritation (Category 1B)

c) Serious eye damage/irritation
- No data available.
d) Respiratory or skin sensitisation
   No data available.

e) Germ cell mutagenicity
   No data available.

f) Carcinogenicity
   Carcinogenicity (Category 1B)

g) Reproductive toxicity
   No data available.

h) STOT-single exposure
   No data available.

i) STOT-repeated exposure
   Specific target organ toxicity, repeated exposure (Category 1)

j) Aspiration hazard
   No data available.

11.2 Symptoms / routes of exposure

| Skin contact | Absorption through the skin may be fatal. Blistering may occur. Irritation or pain may occur at the site of contact. Progressive ulceration will occur if treatment is not immediate. There may be mild irritation at the site of contact. There may be redness or whiteness of the skin in the area of exposure. |
| Eye contact | Corneal burns may occur. May cause permanent damage. The eyes may water profusely. There may be irritation and redness. There may be severe pain. |
| Ingestion | Blood may be vomited. Convulsions may occur. Corrosive burns may appear around the lips. There may be bleeding from the mouth or nose. There may be irritation of the throat. There may be loss of consciousness. There may be soreness and redness of the mouth and throat. There may be vomiting. |
| Inhalation | Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions may occur. Exposure may cause coughing or wheezing. There may be irritation of the throat with a feeling of tightness in the chest. There may be loss of consciousness. There may be shortness of breath with a burning sensation in the throat. There may be vomiting. |
| Delayed / Immediate effects | Convulsions may occur. Immediate effects can be expected after short-term exposure. There may be bleeding from the mouth or nose. There may be loss of consciousness. |

12.2 Ecological information

| Toxicity | No data available. |
| Persistence and degradability | Not biodegradable. |
| Bioaccumulative potential | Bioaccumulation potential. |
| Mobility in soil | Readily absorbed into soil. |
| Results of PBT and vPvB assessment | This substance is not identified as a PBT substance. |
| Endocrine disrupting properties | This substance is not identified as having endocrine disrupting properties |
| Other adverse effects | No data available. |
13.1 Waste treatment methods

Disposal operations
Transfer to a suitable container and arrange for collection by specialised disposal company.

NB
The user’s attention is drawn to the possible existence of regional or national regulations regarding disposal.

14. Transport information

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1566</td>
<td>UN1566</td>
<td>UN1566</td>
<td>UN1566</td>
<td>UN1566</td>
</tr>
</tbody>
</table>

14.2. UN proper shipping name

<table>
<thead>
<tr>
<th>BERYLLIUM COMPOUND, N.O.S.</th>
<th>BERYLLIUM COMPOUND, N.O.S.</th>
<th>Beryllium compound, n.o.s.</th>
<th>BERYLLIUM COMPOUND, N.O.S.</th>
<th>BERYLLIUM COMPOUND, N.O.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1566 BERYLLIUM COMPOUND, N.O.S. (BERYLLIUM FLUORIDE, 33% (W/W) AQUEOUS SOLUTION), 6.1, II</td>
<td>UN1566 BERYLLIUM COMPOUND, N.O.S. (BERYLLIUM FLUORIDE, 33% (W/W) AQUEOUS SOLUTION), 6.1, II</td>
<td>UN1566 Beryllium compound, n.o.s. (Beryllium fluoride, 33% (w/w) aqueous solution), 6.1, II</td>
<td>UN1566 BERYLLIUM COMPOUND, N.O.S. (BERYLLIUM FLUORIDE, 33% (W/W) AQUEOUS SOLUTION), 6.1, II</td>
<td>UN1566 BERYLLIUM COMPOUND, N.O.S. (BERYLLIUM FLUORIDE, 33% (W/W) AQUEOUS SOLUTION), 6.1, II</td>
</tr>
</tbody>
</table>

14.3. Transport hazard class(es)

| 6.1 | 6.1 | 6.1 | 6.1 |

14.4. Packing group

| II | II | II | II |

14.5. Environmental hazards

| No | No | No | No |

15. Regulatory information

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

This Safety Data Sheet is prepared in accordance with Commission Regulation (EC) 1907/2006, amended by Commission Regulation (EU) 2020/787.

Authorisations/Restrictions

- Regulation (EC) 1907/2006, REACH, Annex XIV list of substances subject to authorisation: No data available.
- Regulation (EC) 1005/2009 on substances that deplete the ozone layer: No data available.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

16. Other information

H-Statement Full Texts
H301 Toxic if swallowed
H315 Causes skin irritation
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H330 Fatal if inhaled
H335 May cause respiratory irritation
H350 May cause cancer by inhalation
H372 Causes damage to organs through prolonged or repeated exposure
H411 Toxic to aquatic life with long lasting effects

Abbreviations Full Texts
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
ALARP As low as is reasonably practicable
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging Regulations
COSHH Control of Substances Hazardous to Health
EC Number European Community Number
EC50 Effective Concentration 50%
ELINCS European List of Notified Chemical Substances
EINECS European Inventory of Existing Commercial Chemical Substances
GHS Globally Harmonised System
HSE Health & Safety Executive UK
IATA International Air Transport Association
IM Intramuscular
IMDG The International Maritime Dangerous Goods Code
IP Intraperitoneal
IV Intravascular
LD50 Lethal Dose 50%
LOEC Lowest Observable Effective Concentration
LTEL Long Term Exposure Limit
NOEC No Observable Effective Concentration
OECD Organisation for Economic Cooperations and Development
PBT Persistent Bioaccumulative Toxic
PPE Personal Protective Equipment
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals
RID Regulations Concerning the International Carriage of Dangerous Goods by Rail
SC Subcutaneous
SDS Safety Data Sheet
STEL Short Term Exposure Limit
STOT Specific Target Organ Toxicity
VOC Volatile Organic Compounds
vPvB Very Persistent and Very Bioaccumulative
WEL Workplace Exposure Limits

This Safety Data Sheet is prepared in accordance with Commission Regulation (EC) 1907/2006, amended by Commission Regulation (EU) 2020/787.

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