1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Beta-Glucuronidase from Abalone
Product Number: BG-100
Brand: Kura Biotec
Product Use: For laboratory research only. Not for human use.

Supplier: Kura Biotec SpA
Gnechen J2
Puerto Varas
Chile

Manufacturer: Kura Biotec SpA
Gnechen J2
Puerto Varas
Chile

Telephone: +56 9 8233 6932
Emergency Phone (for both manufacturer and supplier): +56 9 8233 6932

2. HAZARDS IDENTIFICATION

Emergency Overview

WHMIS Classification
D2A Very Toxic Material Causing Other Toxic Effects Respiratory sensitiser
D2B Toxic Material Causing Other Toxic Effects Skin sensitiser

GHS Classification
Respiratory sensitisation (Category 1)
Skin sensitisation (Category 1)

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statement(s)
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

HMIS Classification
Health hazard: 2
Chronic Health Hazard: *
Flammability: 0
Physical hazards: 0
Potential Health Effects

Inhalation  May be harmful if inhaled. May cause respiratory tract irritation.

Skin      May be harmful if absorbed through skin. May cause skin irritation.

Eyes      May cause eye irritation.

Ingestion May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucuronidase, β-</td>
<td>9001-45-0</td>
<td>232-606-8</td>
<td>-</td>
</tr>
<tr>
<td>Sodium azide</td>
<td>26628-22-8</td>
<td>247-852-1</td>
<td>011-004-00-7</td>
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<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>231-791-2</td>
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</table>

Synonyms : beta -D-Glucuronide glucuronosohydrolase, β-glucuronide glucuronohydrolase glucuronidase, exo-β-D-glucuronidase, ketodase.

4. FIRST AID MEASURES

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact
Wash off with soap and plenty of water.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Conditions of flammability
Not flammable or combustible.

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters
Wear self-contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. Nature of decomposition products not known.

Explosion data - sensitivity to mechanical impact
no data available

**Explosion data - sensitivity to static discharge**
no data available

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**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**
Avoid breathing vapors, mist or gas.

**Environmental precautions**
Do not let product enter drains.

**Methods and materials for containment and cleaning up**
Keep in suitable, closed containers for disposal.

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**7. HANDLING AND STORAGE**

**Precautions for safe handling**
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Conditions for safe storage**
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: 2 - 8 °C.

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**8. EXPOSURE CONTROLS/PERSOAL PROTECTION**

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

**Respiratory protection**
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection**
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection**
impervious clothing, The type of protective equipment must be selected according to the concentration and
amount of the dangerous substance at the specific workplace.

**Hygiene measures**
General industrial hygiene practice.

**Specific engineering controls**
Use mechanical exhaust or laboratory fume hood to avoid exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
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<tr>
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<tr>
<td><strong>Color</strong></td>
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**Safety data**

<table>
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<td>Evaporation date</td>
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</table>

10. STABILITY AND REACTIVITY

**Chemical stability**
Stable under recommended storage conditions.

**Possibility of hazardous reactions**
no data available

**Conditions to avoid**
No data available.

**Materials to avoid**
Strong oxidizing agents.
Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50
no data available

Inhalation LC50
no data available

Dermal LD50
no data available

Other information on acute toxicity
no data available

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitization
Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Germ cell mutagenicity
no data available

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity
no data available

Teratogenicity
no data available

Specific target organ toxicity - single exposure
no data available

Specific target organ toxicity - repeated exposure
no data available

**Aspiration hazard**
no data available

**Potential health effects**

- **Inhalation**: May be harmful if inhaled. May cause respiratory tract irritation.
- **Ingestion**: May be harmful if swallowed.
- **Skin**: May be harmful if absorbed through skin. May cause skin irritation.
- **Eyes**: May cause eye irritation.

**Signs and Symptoms of Exposure**
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional Information**
RTECS: Not available

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**12. ECOLOGICAL INFORMATION**

**Toxicity**
No data available.

**Persistence and degradability**
No data available.

**Bioaccumulative potential**
No data available.

**Mobility in soil**
No data available.

**PBT and vPvB assessment**
No data available.

**Other adverse effects**
No data available.

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**13. DISPOSAL CONSIDERATIONS**

**Product**
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods.

IMDG
Not dangerous goods.

IATA
Not dangerous goods.

15. REGULATORY INFORMATION

WHMIS Classification
Not WHMIS controlled.

D2A  Very Toxic Material Causing Other Toxic Effects Respiratory sensitiser
D2B  Toxic Material Causing Other Toxic Effects Skin sensitiser

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 3

Further information
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