SAFETY DATA SHEETS

According to the UN GHS revision 8

1. Identification

1.1 GHS Product identifier

Product name: Ginsenoside Rs3

1.2 Other means of identification

Product number: -
Other names: -

1.3 Recommended use of the chemical and restrictions on use

Identified uses: Industrial and scientific research uses.
Uses advised against: no data available

1.4 Supplier’s details

Company: Target Molecule Corp.
Address: 36 Washington Street, Wellesley Hills, MA 02481 USA
Telephone: (781) 999-4286
Fax: (781)-999-5354

1.5 Emergency phone number

Emergency phone number: (781)-999-5354
Service hours: Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

2. Hazard identification

2.1 Classification of the substance or mixture

no data available

2.2 GHS label elements, including precautionary statements

Pictogram(s): no data available
Signal word: no data available
Hazard statement(s): no data available
Precautionary statement(s): Prevention - no data available
Response - no data available
Storage - no data available
Disposal - no data available

2.3 Other hazards which do not result in classification

no data available

3. Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common names and synonyms</th>
<th>CAS number</th>
<th>EC number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ginsenoside Rs3</td>
<td>Ginsenoside Rs3</td>
<td>194861-70-6</td>
<td>no data available</td>
<td>100%</td>
</tr>
</tbody>
</table>

4. First-aid measures

4.1 Description of necessary first-aid measures

General advice
Medical attention is required. Consult a doctor. Show this safety data sheet (SDS) to the doctor in attendance.

If inhaled
Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact
Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Following eye contact
Rinse with water. Consult a doctor immediately.

Following ingestion
Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison...
4.2 **Most important symptoms/effects, acute and delayed**

*no data available*

4.3 **Indication of immediate medical attention and special treatment needed, if necessary**

*Wear personal protective equipment.*

5. **Fire-fighting measures**

5.1 **Extinguishing media**

*Use dry chemical, carbon dioxide or alcohol-resistant foam.*

5.2 **Specific hazards arising from the chemical**

*no data available*

5.3 **Special protective actions for fire-fighters**

*Wear self-contained breathing apparatus for firefighting if necessary*

6. **Accidental release measures**

6.1 **Personal precautions, protective equipment and emergency procedures**

*Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.*

6.2 **Environmental precautions**

*Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.*

6.3 **Methods and materials for containment and cleaning up**

*Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.*

7. **Handling and storage**

7.1 **Precautions for safe handling**

*Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.*

7.2 **Conditions for safe storage, including any incompatibilities**

*Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.*

8. **Exposure controls/personal protection**

8.1 **Control parameters**

*Occupational Exposure limit values*

*no data available*

8.2 **Appropriate engineering controls**

*Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.*

8.3 **Individual protection measures, such as personal protective equipment (PPE)**

*Eye/face protection. Wear tightly fitting safety goggles with side-shields conforming to EN 410(EU) or NIOSH (US). Skin protection. Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. Respiratory protection. If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator. Thermal hazards. no data available*

9. **Physical and chemical properties**

<table>
<thead>
<tr>
<th>Physical property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>solid</td>
</tr>
<tr>
<td>Odour</td>
<td>no data available</td>
</tr>
<tr>
<td>Melting point/ freezing point</td>
<td>-</td>
</tr>
<tr>
<td>Boiling point or initial boiling point</td>
<td>154-157 °C</td>
</tr>
<tr>
<td>and boiling range</td>
<td>no data available</td>
</tr>
<tr>
<td>Flammability</td>
<td>no data available</td>
</tr>
<tr>
<td>Lower and upper explosion limit /</td>
<td>no data available</td>
</tr>
<tr>
<td>flammability limit</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
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</tr>
<tr>
<td>Auto-ignition temperature</td>
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</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>
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</tr>
<tr>
<td>Solubility</td>
<td>no data available</td>
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<tr>
<td>Partition coefficient n-octanol/water</td>
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<tr>
<td>Vapour pressure</td>
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<tr>
<td>Density and/or relative density</td>
<td>no data available</td>
</tr>
</tbody>
</table>
10. Stability and reactivity

10.1 Reactivity
no data available

10.2 Chemical stability
Stable under proper conditions

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
no data available

10.5 Incompatible materials
no data available

10.6 Hazardous decomposition products
no data available

11. Toxicological information

Acute toxicity
no data available

Skin corrosion/irritation
no data available

Serious eye damage/irritation
no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
no data available

Reproductive toxicity
no data available

STOT-single exposure
no data available

STOT-repeated exposure
no data available

Aspiration hazard
no data available

12. Ecological information

12.1 Toxicity
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Other adverse effects
no data available

13. Disposal considerations

13.1 Disposal methods
Product
The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

**Contaminated packaging**

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

### 14. Transport information

<table>
<thead>
<tr>
<th>14.1 UN Number</th>
<th>no data available</th>
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</thead>
<tbody>
<tr>
<td>14.2 UN Proper Shipping Name</td>
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<td>14.3 Transport hazard class(es)</td>
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<td>14.4 Packing group, if applicable</td>
<td>no data available</td>
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<td>14.5 Environmental hazards</td>
<td>ADR/RID: No  IMDG: No  IATA: No</td>
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<td>14.6 Special precautions for user</td>
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<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
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### 15. Regulatory information

<table>
<thead>
<tr>
<th>15.1 Safety, health and environmental regulations specific for the product in question</th>
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<tbody>
<tr>
<td>Not Listed.</td>
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### 16. Other information

**Information on revision**

<table>
<thead>
<tr>
<th>Creation Date</th>
<th>July 15, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision Date</td>
<td>July 15, 2019</td>
</tr>
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</table>

**Abbreviations and acronyms**

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

**References**

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/nesc/showcard.home
IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/
CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ih/gestis/gestis-stoffdatenbank/index-501.jsp

**For Research Use Only**

Disclaimer: 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. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.