Safety Data Sheet (SDS)

This product is a chemical substance and is intended to be used by persons having chemical knowledge and skill, at their own discretion and risk.

Revision Date: Jun. 1, 2015

Section 1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product Name: 3-Deoxyglucosone
Product Code: D535
CAS Number: 4084-27-9
EC Number: -

1.2 Details of the supplier of the safety data sheet

Company: Dojindo Laboratories
Address: Tabaru 2025-5 Mashiki-machi, Kamimashiki-gun, Kumamoto 861-2202, Japan
Telephone: +81-96-286-1515
Fax: +81-96-286-1525
Emergency phone number: +81-96-286-1515

1.3 Product use

For research use only.

Section 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008

2.2 Label elements

Labeling according Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Pictogram: None
Signal word: None
Hazard statement(s): None
Precautionary statement(s): None

2.3 Other hazards

None known.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Product Name: 3-Deoxyglucosone
Synonyms: 3-Deoxy-D-erythro-hexos-2-ulose
Concentration: ≤ 100 %
Formula: C₆H₁₀O₅
Molecular Weight: 162.14

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled: If breathed in, move into fresh air. Seek medical advice if discomfort occurs. If not breathing, give artificial respiration. Call a physician.
Do not induce vomiting. Wash out mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention.

If swallowed: Wash off with plenty of water. Remove contaminated clothing and launder before reuse.
Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation occurs.

In case of skin contact:

In case of eye contact:

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.
Section 5. **FIRE-FIGHTING MEASURES**

5.1 **Extinguishing media**
Use extinguishing media appropriate for the surrounding fire.

5.2 **Special hazards arising from the substance or mixture**
May emit toxic fumes under fire conditions.

5.3 **Special protective equipment for firefighters**
Wear self-contained breathing apparatus and full protective clothing if necessary.

Section 6. **ACCIDENTAL RELEASE MEASURES**

6.1 **Personal precautions, protective equipment and emergency procedures**
Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Avoid formation of dust. Avoid breathing dust, vapors, mist or gas. Avoid contact with skin and clothing.

6.2 **Environmental precautions**
Prevent further leakage. Prevent contamination of drains with product.

6.3 **Methods and materials for containment and cleaning up**
Pick up and collect product in suitable container for disposal.

Section 7. **HANDLING AND STORAGE**

7.1 **Precautions for safe handling**
Avoid contact with skin and eyes. Avoid formation of dust. Avoid breathing dust, vapors, mist or gas. Wear appropriate protective personal equipment. Use only with adequate ventilation.

7.2 **Conditions for safe storage, including any incompatibilities**
Store in a deep freeze at -20°C, dark and dry place.

Section 8. **EXPOSURE CONTROLS / PERSONAL PROTECTION**

8.1 **Control parameters**
Contains no substances with occupational exposure limit values.

8.2 **Exposure controls**

**Engineering measures**
Ensure adequate ventilation, especially in confined areas.

**Hygiene measures**
Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Wash hands, forearms and face after handling.

**Personal protective equipment**

**Eye/face protection:**
Wear safety glasses with side-shields conforming to European Standard EN166.

**Hand protection:**
Wear protective gloves conforming to EU Directive 89/686/EEC and European Standard EN374. Gloves must be inspected prior to use. Avoid skin contact with product when remove gloves. Dispose of contaminated gloves safely after use.

**Skin and body protection:**
Wear laboratory coat or impervious clothing. Choose appropriate body protection according to the amount and concentration of the substance at the work place.

**Respiratory protection:**
Wear suitable respiratory equipment in case of inadequate ventilation.

Section 9. **PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

- **Appearance:** White to pale yellow solid
- **Odor:** Odorless
- **Odor Threshold:** No data available
- **pH:** No data available
- **Melting point/freezing point:** No data available
- **Initial boiling point and boiling range:** No data available
- **Flash point:** No data available
- **Evaporation rate:** No data available
- **Flammability (solid, gas):** No data available
- **Upper / lower flammability or explosive limits:** No data available
- **Vapor pressure:** No data available
- **Vapor density:** No data available
- **Relative density:** No data available
- **Solubility(ies):** No data available
- **Partition coefficient: n-octanol / water:** No data available
- **Auto-ignition temperature:** No data available
- **Decomposition temperature:** No data available
- **Viscosity:** No data available
s) Explosive properties: No data available
t) Oxidizing properties: No data available

Section 10. **STABILITY AND REACTIVITY**

**Stability and reactivity**
- **Reactivity:** Stable
- **Chemical stability:** Stable at a deep freeze at -20°C, dark and dry place.
- **Possibility of hazardous reactions:** No data available
- **Conditions to avoid:** Heat, sunlight, high temperature
- **Incompatible materials:** Strong oxidizing agents, strong acids and bases
- **Hazardous decomposition products:** When decomposed, it may emit toxic fumes of carbon monoxide and carbon dioxide.

Section 11. **TOXICOLOGICAL INFORMATION**

11.1 **Information on toxicological effects**
- **a) Acute toxicity:** No data available
- **b) Skin corrosion / irritation:** No data available
- **c) Serious eye damage/eye irritation:** No data available
- **d) Carcinogenicity:** No component of this product present at levels greater than or equal to 0.1% is identified as a possible, probable or confirmed human carcinogen by IARC.
- **e) Reproductive toxicity:** No data available
- **f) STOT - SE:** No data available
- **g) STOT - RE:** No data available
- **h) Aspiration hazard:** No data available

11.2 **Potential health effects**
- **Ingestion:** May be harmful if swallowed.
- **Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.
- **Skin:** May be harmful if absorbed through skin. Causes skin irritation.
- **Eyes:** Causes serious eye irritation.

11.3 **Additional Information**
No additional information is available

Section 12. **ECOLOGICAL INFORMATION**

12.1 **Ecotoxicity**
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 **Results of PBT and vPvB assessment**
No data available

Section 13. **DISPOSAL CONSIDERATIONS**

**Waste treatment methods**
- **Product** Contact a licensed professional waste disposal service to dispose of this material. Dispose of in accordance with local regulations.
- **Contaminated packaging** Dispose of as unused product. Do not reuse empty containers.

Section 14. **TRANSPORT INFORMATION**

14.1 **UN number**
- **ADR/RID:** -
- **IMDG:** -
- **IATA:** -

14.2 **UN proper shipping name**
- **ADR/RID:** Not dangerous goods
- **IMDG:** Not dangerous goods
- **IATA:** Not dangerous goods

14.3 **Transport hazard class(es)**
- **ADR/RID:** -
- **IMDG:** -
- **IATA:** -

14.4 **Packaging group**
- **ADR/RID:** -
- **IMDG:** -
- **IATA:** -

14.5 **Environmental hazards**
- **ADR/RID:** No
- **IMDG:** No
- **IATA:** No

When decomposed, it may emit toxic fumes of carbon monoxide and carbon dioxide.
Section 15. **REGULATORY INFORMATION**


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

No information available

15.2 **Chemical Safety Assessment**

No information available

Section 16. **OTHER INFORMATION**

**Key to abbreviations and acronyms**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>STOT-SE:</td>
<td>Specific Target Organ Toxicity - Single Exposure</td>
</tr>
<tr>
<td>STOT-RE:</td>
<td>Specific Target Organ Toxicity - Repeated Exposure</td>
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<tr>
<td>PBT:</td>
<td>Persistent Bioaccumulative and Toxic</td>
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<tr>
<td>vPvB:</td>
<td>very Persistent very Bioaccumulative and toxic</td>
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<tr>
<td>ADR:</td>
<td>European Agreement concerning the international carriage of Dangerous goods by Road</td>
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<td>CAS:</td>
<td>Chemical Abstracts Service</td>
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<tr>
<td>IARC:</td>
<td>International Agency for Research on Cancer</td>
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<tr>
<td>IATA:</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IMDG:</td>
<td>International Maritime Code for Dangerous Goods</td>
</tr>
<tr>
<td>REACH:</td>
<td>Registration, Evaluation, Authorisation and restriction of Chemicals</td>
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<tr>
<td>RID:</td>
<td>Regulations concerning the International transport of Dangerous goods by rail</td>
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