

2-DG (2-Deoxy-D-glucose) SDS | MSDS

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

- **Product Name:** 2-DG (2-Deoxy-D-glucose)
- **Catalog Number:** S4701
- **CAS Number:** 154-17-6
- **IUPAC Name:** D-arabino-Hexose, 2-deoxy-

Relevant identified uses and uses advised against

- **Identified uses:** For research and development use only; laboratory chemicals; manufacture of substances.
- **Uses advised against:** Not for pharmaceutical, household, or other unapproved uses.

Details of the supplier

- **Company :** Selleck Chemicals
- **TollFree :** +1 877 796-6397
- **Tel :** +1 832 582-8158
- **Fax :** +1 832 582-8590

Emergency telephone number

- **Emergency phone #:** +1 832 582-8158

2. HAZARDS IDENTIFICATION

GHS Classification

In accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200), this substance is classified as non-hazardous.

GHS Label Elements

The product is not a hazardous substance or mixture and does not require specific GHS labeling or pictograms.

Other Hazards

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Substance

Chemical Name: D-arabino-Hexose, 2-deoxy-

Components: No hazardous ingredients are present according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

4. FIRST AID MEASURES

Inhalation: If inhaled, move the person to fresh air.

Skin Contact: Immediately remove all contaminated clothing. Rinse the affected skin area with water or shower.

Eye Contact: Rinse eyes thoroughly with plenty of water. Remove contact lenses if present.

Ingestion: If swallowed, provide the victim with a maximum of two glasses of water. Consult a physician if the individual feels unwell.

Most Important Symptoms and Effects: The most significant known symptoms and effects are described in the GHS labeling (Section 2) and toxicological information (Section 11).

Protection of First-Aiders: Refer to Section 8 for personal protective equipment.

Notes to Physician: No specific data provided for this section.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: There are no limitations on extinguishing agents for this substance.

Hazardous Combustion Products: Carbon oxides.

Specific Extinguishing Methods: No specific data provided for this section.

Further Information: Prevent fire extinguishing water from entering surface water or groundwater systems.

Special Protective Equipment: Firefighters should wear self-contained breathing apparatus in the event of a fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Emergency Procedures:

- **For non-emergency personnel:** Avoid inhalation of dusts. Evacuate the danger area, follow emergency procedures, and consult an expert.
- **For emergency responders:** Utilize personal protection as recommended in Section 8.

Environmental Precautions: Do not allow the product to enter drains.

Methods and Materials for Containment and Cleaning Up: Cover drains. Collect, bind, and pump off spills. Observe material restrictions (Sections 7 and 10). Take up the material in a **powder** state. Dispose of properly and clean the affected area. Avoid the generation of dusts.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Refer to Section 2.2 for precautions.

Conditions for Safe Storage: Keep the container tightly closed and in a dry location.

Storage Class: 11 (Combustible Solids).

Recommended Storage Temperature: 36 - 46 °F / 2 - 8 °C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: Contains no substances with occupational exposure limit values.

Engineering Measures: No specific data provided for this section.

Personal Protective Equipment:

- **Respiratory Protection:** Required when dusts are generated. Recommended filter type: P1 (based on DIN EN 143, DIN 14387).
- **Hand Protection:** Use nitrile rubber gloves. Full and splash contact specifications: 0.11 mm thickness, 480 min breakthrough time (e.g., Dermatril® KCL 740). Inspect gloves prior to use and use proper removal techniques.
- **Eye Protection:** Use safety glasses tested and approved under standards such as NIOSH (US) or EN 166 (EU).
- **Hygiene Measures:** Change contaminated clothing and wash hands after handling the substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: powder

Color: white

Odor: N/A

Odor Threshold: N/A

pH: N/A

Melting Point/Range: 295 - 297 °F / 146 - 147 °C

Boiling Point/Range: N/A

Flash Point: N/A

Evaporation Rate: N/A

Flammability (solid, gas): N/A

Upper/Lower Explosion Limit: N/A

Vapor Pressure: N/A

Relative Vapor Density: N/A

Relative Density: N/A

Density: N/A

Water Solubility: N/A

Partition Coefficient (n-octanol/water): N/A

Autoignition Temperature: N/A

Decomposition Temperature: N/A

Viscosity: N/A

Explosive Properties: N/A

Oxidizing Properties: N/A

Molecular Weight: 164.16 g/mol

Particle Size: N/A

10. STABILITY AND REACTIVITY

Reactivity: N/A.

Chemical Stability: The product is chemically stable under standard ambient conditions (room temperature).

Possibility of Hazardous Reactions: N/A.

Conditions to Avoid: No information available.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: In the event of fire, see Section 5.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: N/A for oral, inhalation, or dermal routes.

Skin Corrosion/Irritation: N/A.

Serious Eye Damage/Irritation: N/A.

Respiratory or Skin Sensitization: N/A.

Germ Cell Mutagenicity: N/A.

Carcinogenicity:

- **IARC:** No ingredient present at levels $\geq 0.1\%$ is identified as a probable, possible, or confirmed human carcinogen.
- **ACGIH:** No ingredient present at levels $\geq 0.1\%$ is identified as a carcinogen or potential carcinogen.
- **NTP:** No ingredient present at levels $\geq 0.1\%$ is identified as a known or anticipated carcinogen.
- **OSHA:** No component present at levels $\geq 0.1\%$ is on OSHA's list of regulated carcinogens.

Reproductive Toxicity: N/A.

STOT - Single Exposure: N/A.

STOT - Repeated Exposure: N/A.

Aspiration Hazard: N/A.

Additional Information: To the best of current knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Ecotoxicity: N/A.

Persistence and Degradability: N/A.

Bioaccumulative Potential: N/A.

Mobility in Soil: N/A.

Other Adverse Effects: N/A.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Waste material must be disposed of in accordance with national and local regulations. Retain chemicals in original containers. Do not mix with other waste. Handle uncleaned containers with the same precautions as the product itself.

14. TRANSPORT INFORMATION

DOT (49 CFR): Not regulated as a dangerous good.

Poison Inhalation Hazard: No.

IATA: Not regulated as a dangerous good.

IMDG: Not regulated as a dangerous good.

Transport in Bulk: Not applicable for product as supplied (according to IMO instruments).

Special Precautions: Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

Components: CAS-No. Component TPQ (lbs)

No specific data provided for this section.

SARA 311/312 Hazards

No SARA Hazards

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

D-arabino-Hexose, 2-deoxy- 154-17-6

New Jersey Right To Know

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California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

TSCA: All substances listed as active on the TSCA inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

16. OTHER INFORMATION

Revision Date: 2026/06/23

Further Information: The information provided is believed to be correct but is not exhaustive and should be used only as a guideline based on current knowledge. It does not represent a guarantee of the properties of the product. Selleck Chemicals Corporation and its Affiliates shall not be held liable for any damage resulting from handling or contact with the product.