

## Material Safety Data Sheet

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Version 1.2

According to 91/155/EEC

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1 - Product and Company Information

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Product Name	2-DEOXY-D-GLUCOSE SIGMAULTRA
Product Number	D3179
Company	Sigma-Aldrich Pty. Ltd. 12 Anella Avenue Castle Hill NSW 2154 Australia
Technical Phone #	+61 2 9841 0555 (1800 800 097)
Fax	+61 2 9841 0500 (1800 800 096)
Emergency Phone #	+44 8701906777 (1800 448 465)

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2 - Composition/Information on Ingredients

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Product Name	CAS #	EC no	Annex I Index Number
2-DEOXY-D-GLUCOSE GRADE II	154-17-6	205-823-0	None
Formula	C6H12O5		
Molecular Weight	164.16 AMU		
Synonyms	Ba 2758 * 2-Deoxy-D-arabino-hexose * D-2-Deoxyglucose * 2-Deoxyglucose * 2-Deoxy-D-glucose * 2-Deoxy-D-mannose * 2-Desoxy-D-glucose (French) * Glucose, 2-deoxy- * D-Glucose, 2-deoxy- * NSC 15193		

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3 - Hazards Identification

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SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Not hazardous according to Directive 67/548/EEC.

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4 - First Aid Measures

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## AFTER INHALATION

If inhaled, remove to fresh air. If breathing becomes difficult,  
call a physician.

## AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for  
at least 15 minutes. Remove contaminated clothing and shoes.  
Call a physician.

## AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of  
water for at least 15 minutes. Assure adequate flushing by  
separating the eyelids with fingers. Call a physician.

## AFTER INGESTION

If swallowed, wash out mouth with water provided person is  
conscious. Call a physician.

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## 5 - Fire Fighting Measures

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### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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## 6 - Accidental Release Measures

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### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear protective equipment.

### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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## 7 - Handling and Storage

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### HANDLING

Directions for Safe Handling: Do not breathe dust. Avoid contact with eyes, skin, and clothing.

### STORAGE

Conditions of Storage: Keep tightly closed. Store in a cool dry place.

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## 8 - Exposure Controls / Personal Protection

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### ENGINEERING CONTROLS

Mechanical exhaust required.

### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Government approved respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

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## 9 - Physical and Chemical Properties

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### Appearance

Color: White  
Form: Crystals

### Property

Value

At Temperature or Pressure

pH

N/A

BP/BP Range

N/A

MP/MP Range

146 - 147 °C

Flash Point

N/A

Flammability

N/A

Autoignition Temp

N/A

Oxidizing Properties

N/A

Explosive Properties

N/A

Explosion Limits	N/A
Vapor Pressure	N/A
SG/Density	N/A
Partition Coefficient	N/A
Viscosity	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
Evaporation Rate	N/A
Bulk Density	N/A
Decomposition Temp.	N/A
Solvent Content	N/A
Water Content	N/A
Surface Tension	N/A
Conductivity	N/A
Miscellaneous Data	N/A
Solubility	Solubility in Water:0.3 g/ml H2O clear, colorless

## 10 - Stability and Reactivity

### STABILITY

Stable: Stable.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

## 11 - Toxicological Information

RTECS NUMBER: MQ3325000

### ACUTE TOXICITY

LD50  
Subcutaneous  
Rat  
250 MG/KG

LD50  
Intraperitoneal  
Rat  
2 GM/KG

### SIGNS AND SYMPTOMS OF EXPOSURE

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

### ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.  
Eye Contact: May cause eye irritation.  
Inhalation: Material may be irritating to mucous membranes and upper respiratory tract.  
Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption.

### CHRONIC EXPOSURE - TERATOGEN

Species: Rat  
Dose: 4 GM/KG  
Route of Application: Oral

Exposure Time: (7-14D PREG)  
Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

#### CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat  
Dose: 2 GM/KG  
Route of Application: Oral  
Exposure Time: (7-8D PREG)  
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Species: Mouse  
Dose: 2 GM/KG  
Route of Application: Intraperitoneal  
Exposure Time: (7-10D PREG)  
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).  
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.

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#### 12 - Ecological Information

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No data available.

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#### 13 - Disposal Considerations

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##### SUBSTANCE DISPOSAL

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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#### 14 - Transport Information

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##### RID/ADR

Non-hazardous for road transport.

##### IMDG

Non-hazardous for sea transport.

##### IATA

Non-hazardous for air transport.

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#### 15 - Regulatory Information

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Not hazardous according to Directive 67/548/EEC.

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#### 16 - Other Information

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##### WARRANTY

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. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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