

## Chemical Safety Data Sheet MSDS / SDS

**2,3,5-tri-O-benzyl-1,0-(4-nitrobenzoyl)-D-arabinofuranose**Revision Date:2026-04-25 Revision Number:1

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product identifier**

Product name : 2,3,5-tri-O-benzyl-1,0-(4-nitrobenzoyl)-D-arabinofuranose  
CBnumber : CB8204390  
CAS : 52522-49-3  
EINECS Number : 257-992-5  
Synonyms : 2,3,5-TRI-O-BENZYL-1-O-(4-NITROBENZOYL)-D-ARABINOFURANOSE,intermediate of fludarabine phosphate

**Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

**Company Identification**

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 010-86108875

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**SECTION 2: Hazards identification****GHS Label elements, including precautionary statements**

Symbol(GHS) : No data available  
Signal word : No data available

**Precautionary statements**

No data available

**Hazard statements**No data available

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**SECTION 3: Composition/information on ingredients****Substance**

Product name : 2,3,5-tri-O-benzyl-1,0-(4-nitrobenzoyl)-D-arabinofuranose  
Synonyms : 2,3,5-TRI-O-BENZYL-1-O-(4-NITROBENZOYL)-D-ARABINOFURANOSE,intermediate of fludarabine

	phosphate
CAS	: 52522-49-3
EC number	: 257-992-5
MF	: C33H31NO8
MW	: 569.6

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## SECTION 4: First aid measures

### First Aid Measures

#### General advice

If symptoms persist, call a physician.

#### Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.

#### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

#### Inhalation

Remove to fresh air. If symptoms persist, call a physician. Artificial respiration and/or oxygen may be necessary. Call a physician. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors.

#### Ingestion

Immediate medical attention is not required. Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

#### Self-protection of the first aider

Use personal protective equipment as required.

### Most important symptoms and effects, both acute and delayed

#### Symptoms

No information available.

### Indication of any immediate medical attention and special treatment needed

#### Note to physicians

Treat symptomatically.

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## SECTION 5: Firefighting measures

### Suitable Extinguishing Media

#### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable Extinguishing Media

No information available.

### **Specific hazards arising from the chemical**

#### **Specific hazards arising from the chemical**

No information available.

#### **Hazardous combustion products**

Carbon oxides. Nitrogen oxides (NO<sub>x</sub>).

#### **Explosion data**

#### **Sensitivity to Mechanical Impact**

No information available.

#### **Sensitivity to Static Discharge**

No information available.

#### **Protective equipment and precautions for firefighters**

##### **Protective equipment and precautions for firefighters**

As in any fire, wear self contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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## **SECTION 6: Accidental release measures**

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

#### **Personal precautions**

Use personal protective equipment as required. Avoid contact with eyes and skin. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

#### **Environmental precautions**

##### **Environmental precautions**

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

Prevent product from entering drains. See Section 12 for additional Ecological Information.

### **Methods and material for containment and cleaning up**

#### **Methods for containment**

Prevent further leakage or spillage if safe to do so.

#### **Methods for cleaning up**

Use personal protective equipment as required. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Avoid creating dust. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

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## **SECTION 7: Handling and storage**

### **Precautions for safe handling**

### **Advice on safe handling**

Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Use with local exhaust ventilation. Do not breathe dust/fume/gas/mist/vapors/spray.

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

#### **Storage Conditions**

Keep container tightly closed. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Store at room temperature.

#### **Incompatible materials**

None known based on information supplied.

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## **SECTION 8: Exposure controls/personal protection**

### **Control parameters**

#### **Exposure Guidelines**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### **Appropriate engineering controls**

#### **Engineering Controls**

Showers  
Eyewash stations  
Ventilation systems

### **Individual protection measures, such as personal protective equipment**

#### **Eye/face protection**

Tight sealing safety goggles. Face protection shield.

#### **Skin and Body Protection**

Wear protective gloves and protective clothing.

#### **Respiratory protection**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

#### **General Hygiene Considerations**

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

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## **SECTION 9: Physical and chemical properties**

### **Information on basic physicochemical properties**

Physical State	Solid
Appearance	crystalline powder

Odor	No information available
pH	No information available
Melting point/freezing point	69 °C
Boiling point	706.18 °C
Flash point	246.80 °C
Liquid Density	1.3 g/cm <sup>3</sup>
Evaporation rate	No information available
Upper flammability limits	No information available
Lower flammability limit	No information available
Vapor pressure	0 mmHg
Vapor density	No information available
Specific gravity	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Density and/or relative density	1.2620 (rough estimate)
Solubility	Chloroform (Slightly), DMSO (Slightly)
Colour	White to Off-white

## SECTION 10: Stability and reactivity

### Reactivity

Not applicable

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Hazardous polymerization

No information available.

### Conditions to avoid

Extremes of temperature and direct sunlight.

### Incompatible materials

Strong oxidizing agents.

## Hazardous Decomposition Products

Carbon oxides. Nitrogen oxides (NOx).

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## SECTION 11: Toxicological information

### Information on likely routes of exposure

#### Inhalation

No data available.

#### Eye contact

No data available.

#### Skin Contact

No data available.

#### Ingestion

No data available.

### Information on toxicological effects

#### Symptoms

No information available.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Chronic Toxicity

Avoid repeated exposure.

### Numerical measures of toxicity - Product Information

#### Unknown acute toxicity

No information available

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## SECTION 12: Ecological information

### Ecotoxicity

May cause long lasting harmful effects to aquatic life

100% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

### Persistence and degradability

No information available.

### Bioaccumulation

No information available.

### Mobility

No information available.

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## SECTION 13: Disposal considerations

### Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### Contaminated packaging

Do not reuse container.

### Other Information

Waste codes should be assigned by the user based on the application for which the product was used.

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## SECTION 14: Transport information

### DOT

Not regulated

### IMDG

Not regulated

### IATA

Not regulated

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## SECTION 15: Regulatory information

### International Inventories

All of the components in the product are on the following Inventory lists

Europe (EINECS/ELINCS/NLP)

X - Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
2,3,5-Tri-O-benzyl-D-arabino furanose 1-(4-nitrobenzoate)	-	-	-	X	-	-	-	-	-	-
furanose	1-(4-nitrobenzoate)									
Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
2,3,5-Tri-O-benzyl-D-arabino furanose	-	-	X	-	-	-	-	-	furanose	1-(4-nitrobenzoate)

### US Federal Regulations

## **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

## **SARA 311/312 Hazard Categories**

### **Acute health hazard**

Yes

### **Chronic Health Hazard**

No

### **Fire hazard**

No

### **Sudden release of pressure hazard**

No

### **Reactive hazard**

No

## **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

## **US State Regulations**

### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

### **U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated by state right-to-know regulations

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## **SECTION 16: Other information**

### **Abbreviations and acronyms**

CAS: Chemical Abstracts Service

TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

EC50: Effective Concentration 50%

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

DOT: US Department of Transportation

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

**Disclaimer:**

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.