

Safety Data Sheet

#39020035 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Tri-O-benzyl-D-glucal	55628-54-1	C27H28O4	10	15 Sep 2026

SECTION 1

Identification

1.1 Product identifier

Product name	Tri-O-benzyl-D-glucal
CAS number	55628-54-1
EC / EINECS number	<i>Not applicable</i>
Chemical formula	C27H28O4
Molecular weight	416.51
SMILES	<chem>C1=CC=C(C=C1)COCC2C(C(C=CO2)OCC3=CC=CC=C3)OCC4=CC=CC=C4</chem>

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

For research and development. Laboratory chemicals. Manufacture of substances.
Not suitable for human or veterinary purposes

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008.

2.2 Label elements

NONE

CODE	PRECAUTIONARY STATEMENT
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P280	Wear protective gloves/protective clothing/eye protection/face protection
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2.3 Other hazards

This product does not contain any known or suspected Endocrine disruptors. Does not meet PBT or vPvB criteria under REACH Annex XIII.

SECTION 3

Composition / information on ingredients

3.1 Substances

Name	Tri-O-benzyl-D-glucal
CAS number	55628-54-1
Concentration / purity	~100.0%
Classification according to Regulation (EC) No 1272/2008	This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008.
Hazard statements	None
Acute toxicity estimate (ATE)	No data available
Impurities / stabilising additives	None recorded

SECTION 4

First-aid measures

4.1 Description of first aid measures

Inhalation	Move to fresh air. Get medical attention if any discomfort continues.
Skin contact	Rinse skin with water. If skin irritation or rash occurs: get medical advice/attention.
Eye contact	Remove contact lenses if present. Rinse eyes with water. If eye irritation persists: get medical advice/attention.
Ingestion	Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

Treat symptomatically.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5

Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Water, Foam, Carbon dioxide (CO₂), Dry powder. Use measures appropriate to local circumstances

Unsuitable extinguishing media No specific firefighting procedure given

5.2 Special hazards arising from the substance or mixture

Carbon monoxide (CO)

Carbon dioxide (CO₂)

5.3 Advice for firefighters

Use self-contained breathing apparatus

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust inhalation; evacuate danger area; consult expert

6.2 Environmental precautions

Prevent entry into drains

6.3 Methods and material for containment and cleaning up

Cover drains; collect spills; dispose properly; avoid dust generation

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs. Wash contaminated skin thoroughly after handling. Do not eat, drink or smoke when using this product. Remove contaminated clothing and launder thoroughly before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature -15 to -20 °C

Conditions for safe storage (incompatibilities) Tightly closed, dry, moisture-sensitive. Store under inert gas.

7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection**8.1 Control parameters**

Occupational exposure limits (OEL / WEL) None reported

DNEC/PNEC data None reported

8.2 Exposure controls

Eye / face protection Safety glasses
Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.

Skin / hand protection Nitrile gloves Thickness: 0.11mm. Breakthrough time: 480mins.

Respiratory protection Not required
Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

Other protection *No data available*

Environmental exposure controls *No data available*

SECTION 9

Physical & chemical properties**9.1 Information on basic physical and chemical properties**

Appearance / physical state Solid
DERIVED FROM: LITERATURE

Colour Light yellow
DERIVED FROM: LITERATURE

Odour Not known
DERIVED FROM: LITERATURE

Melting / freezing point 57-58 °C
DERIVED FROM: LITERATURE

Boiling point No data available.
DERIVED FROM: LITERATURE

Flammability *No data available*

Lower and upper explosion limit *No data available*

Flash point *Not applicable*

Auto-ignition temperature No data available.
DERIVED FROM: LITERATURE

Decomposition temperature *No data available*

pH No data available.
DERIVED FROM: LITERATURE

Acidity	Neutral DERIVED FROM: LITERATURE
Kinematic viscosity	No data available
Solubility	No data available
Partition coefficient n-octanol/water (log value)	No data available. DERIVED FROM: LITERATURE
Vapour pressure	No data available. DERIVED FROM: LITERATURE
Density (g/mL)	Not applicable
Relative vapour density	No data available
Particle characteristics	No data available

9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under the prescribed storage conditions
Hygroscopic

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Avoid moisture

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

See section 5

SECTION 11

Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (LD50 / LC50)	No data available
Skin corrosion / irritation	No data available
Eye corrosion / irritation	No data available

Respiratory / skin sensitisation	<i>No data available</i>
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Carcinogenicity	<i>No data available</i>
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Mutagenicity	<i>No data available</i>
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Reproductive toxicity	<i>No data available</i>
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STOT (single / repeated exposure)	<i>No data available</i>
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Aspiration hazard	Material is a solid.
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11.2 Information on other hazards

Material is not considered an endocrine disruptor

SECTION 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 Results of PBT and vPvB assessment

PBT/vPvB assessment not required

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local/national regulations

SECTION 14

Transport information

14.1 UN number or ID number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Special precautions for user Not applicable

Transport category Not applicable

Tunnel code Not applicable

Packing instruction (ADR) Not applicable

Packing instruction (IMDG) Not applicable

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

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

Substance-specific regulations (e.g. licences) No data available

REACH code Y113

ECHA notification Not applicable

15.2 Chemical safety assessment

No

SECTION 16

Other information

Revision notes / other information Version created 15.09.2026

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.