

Safety Data Sheet

#30852524 · 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
alpha-D-Glucose pentaacetate	604-68-2	C16H22O11	10	29 Jul 2026

SECTION 1

Identification

Product name	alpha-D-Glucose pentaacetate
CAS number	604-68-2
Chemical formula	C16H22O11
Molecular weight	390.34
SMILES	<chem>O=C(OCC1OC(OC(=O)C)C(OC(=O)C)C(OC(=O)C)C1OC(=O)C)C</chem>
EC / EINECS number	<i>Not applicable</i>
Recommended use & restrictions	For research purposes only.
Emergency telephone	0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification



WARNING

CODE	HAZARD STATEMENT
H317	May cause an allergic skin reaction
H412	Harmful to aquatic life with long lasting effects
CODE	PRECAUTIONARY STATEMENT
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P272	Contaminated work clothing should not be allowed out of the workplace
P280	Wear protective gloves/protective clothing/eye protection/face protection
P302+P352	IF ON SKIN: Wash with soap and water
P362	Take off contaminated clothing and wash before reuse
P501	Dispose of contents/container to an approved waste disposal plant
Other hazards (e.g. PBT / vPvB, not classified)	Not classified as PBT or vPvB according to current UK criteria.

SECTION 3

Composition / information on ingredients

Purity / concentration	100% alpha-D-Glucose pentaacetate
Impurities / stabilising additives	Not specified

SECTION 4

First-aid measures

Inhalation	Move affected person to fresh air and keep warm; loosen tight clothing; seek medical attention if symptoms persist.
Skin contact	Remove contamination with soap and water; seek medical attention if irritation persists.
Eye contact	Rinse with water; seek medical attention if discomfort continues.
Ingestion	Rinse mouth; give small glasses of water/milk; avoid vomiting if unconscious; seek medical attention.
Symptoms / effects & medical attention	May cause temporary irritation (inhalation), skin sensitisation, stomach pain, nausea, or vomiting (ingestion).

SECTION 5

Fire-fighting measures

Suitable extinguishing media	Alcohol-resistant foam, carbon dioxide, dry powder, or water fog.
Unsuitable extinguishing media	Water jet (spreads fire).
Special hazards	Toxic gases (CO, CO ₂) on combustion.
Advice for firefighters	Wear SCBA and protective clothing; cool containers with water spray; control run-off water.

SECTION 6

Accidental release measures

Personal precautions & PPE	Wear protective clothing; avoid contact with skin/eyes; do not touch spilled material.
Environmental precautions	Avoid discharge into drains, watercourses, or ground.
Containment & clean-up methods	Collect with shovel/broom; dispose of waste safely; flush contaminated area with water.

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

Storage temperature	Ambient
Precautions for safe handling	Wear protective clothing; keep away from food/drink; avoid broken packages; do not reuse containers.
Conditions for safe storage (incompatibilities)	Store in original container, tightly closed, in a cool, well-ventilated place; keep upright; away from incompatible materials.

SECTION 8

Exposure controls / personal protection

Occupational exposure limits (OEL / WEL)	<i>Not applicable</i>
DNEC/PNEC data	<i>Not applicable</i>
Eye / face protection	Safety glasses
Skin / hand protection	Nitrile gloves Thickness: 0.11mm. Breakthrough time: 480mins.
Respiratory protection	Not required

SECTION 9

Physical & chemical properties

Density (g/mL)	1.323 g/mL DERIVED FROM: LITERATURE
Flash point	150 °C DERIVED FROM: LITERATURE
Acidity	Acid DERIVED FROM: LITERATURE
Appearance / physical state	Solid DERIVED FROM: LITERATURE
Colour	White to off-white DERIVED FROM: LITERATURE
Odour	Not known DERIVED FROM: LITERATURE
Melting / freezing point	100-113°C DERIVED FROM: LITERATURE
Boiling point	Not specified DERIVED FROM: LITERATURE
Solubility (water)	Soluble in water. 1.5 g/l at 20 °C DERIVED FROM: LITERATURE
pH	Not specified DERIVED FROM: LITERATURE
Vapour pressure	Not specified DERIVED FROM: LITERATURE
Partition coefficient (log Pow)	1.87 DERIVED FROM: LITERATURE
Auto-ignition / decomposition temp	Not specified DERIVED FROM: LITERATURE

SECTION 10

Stability & reactivity

Chemical stability / reactivity	Stable under the prescribed storage conditions
Conditions to avoid	None known
Incompatible materials	Strong oxidising agents
Hazardous decomposition products	See section 5

SECTION 11

Toxicological information

Acute toxicity (LD50 / LC50) LD50 Oral - Rat - female - > 2,000 mg/kg

Skin corrosion / irritation *Not applicable*

Eye corrosion / irritation *Not applicable*

Respiratory / skin sensitisation May cause allergic skin reactions.

Carcinogenicity / mutagenicity / reproductive *Not applicable*

STOT (single / repeated exposure) *Not applicable*

Aspiration hazard Not specified

Endocrine disruptors *Not applicable*

SECTION 12

Ecological information

Aquatic toxicity semi-static test EC50 - Daphnia magna (Water flea) - > 100 mg/l -48 h
static test ErC50 - Desmodesmus subspicatus (green algae) - > 59.3 mg/l - 72 h

Persistence & degradability aerobic - Exposure time 28 d Result: c.83 % - Readily biodegradable.

Bioaccumulative potential Not specified

Mobility in soil Not specified

PBT / vPvB assessment Not classified as PBT or vPvB.

SECTION 13

Disposal considerations

Waste treatment / disposal methods Dispose of contents/container in accordance with national regulations.

SECTION 14

Transport information

UN number	Not applicable
Proper shipping name	Not applicable
Class	Not applicable
Packing group	Not applicable
Transport category	Not applicable
Tunnel code	Not applicable
Packing instruction (ADR)	Not applicable
Packing instruction (IMDG)	Not applicable
Environmental hazards	Not applicable
Special precautions for user	Handle in accordance with good industrial hygiene and safety practice

SECTION 15

Regulatory information

REACH code	Y110
UFI code	Not applicable
ECHA notification	Not applicable
Chemical safety assessment carried out?	Not applicable

SECTION 16

Other information

Revision notes / other information	Not applicable
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