

Safety (MSDS) data for glycerol

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General

Synonyms: glycerin, glycerol USP, glycerine, 1,2,3-propanetriol, propanetriol, 1,2,3-trihydroxypropane, bulboid, citifluor AF 2, cristal, emergy 916, glyrol, glycerol ophthalgan, glyciterol, glycyol alcohol, osmoglyn, pricerine 9091

Use: Widely used as a food additive (emulsifier, thickener, stabilizer), cosmetic agent, lubricating agent, antifreeze etc.

Molecular formula: $C_3H_8O_3$ [structural: $CH_2OHCHOHCH_2OH$]

CAS No: 56-81-5

EC No: 200-289-5

Physical data

Appearance: viscous colourless or pale yellow liquid

Melting point: 17.8 C

Boiling point: 290 C

Vapour density: 3.17 g/l

Vapour pressure: < 1mm Hg at 20 C

Specific gravity: 1.261

Flash point: 160 C (closed cup)

Explosion limits: lower 0.9%

Autoignition temperature: 370 C

Critical temperature: 492.2 C

Critical pressure: 42.5 atm

Stability

Stable. Incompatible with perchloric acid, lead oxide, acetic anhydride, [nitrobenzene](#), [chlorine](#), peroxides, strong acids, strong bases. Flammable.

Toxicology

Mist is a respiratory irritant at high concentrations. Repeated contact may cause dehydration of skin. Typical TLV 10 mg/m³ (nuisance). Not hazardous according to directive 67/548/EC.

Toxicity data

(The meaning of any abbreviations which appear in this section is given [here.](#))

IPR-RAT LD50 8700 mg kg⁻¹

ORL-RAT LD50 12600 mg kg⁻¹

SCU-RAT LD50 100 mg kg⁻¹

ORL-MUS LD50 8700 mg kg⁻¹

Risk phrases

(The meaning of any risk phrases which appear in this section is given [here.](#))

R36 R38.

Personal protection

Minimize contact.

Safety phrases

(The meaning of any safety phrases which appear in this section is given [here.](#))

S26 S36.

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This information was last updated on April 1, 2005. We have tried to make it as accurate and useful as possible, but can take no responsibility for its use, misuse, or accuracy. We have not verified this information, and cannot guarantee that it is up-to-date.
