

Safety data for methanesulfonic acid

[Glossary](#) of terms on this data sheet.

The information on this web page is provided to help you to work safely, but it is intended to be an overview of hazards, not a replacement for a full Material Safety Data Sheet (MSDS). MSDS forms can be downloaded from the web sites of many chemical suppliers.

General

Synonyms: methylsulfonic acid, MSA, methylsulfonate, (alkane sulfonic acid)

Molecular formula: CH_4SO_3

CAS No: 75-75-2

EINECS No: 200-898-6

EU No: 607-145-00-4

Physical data

Appearance: colourless or light yellow liquid

Melting point: -60 C (?)

Boiling point: 167 C at 10 mm Hg

Vapour density:

Vapour pressure:

Density (g cm^{-3}): 1.48

Flash point: 188 C

Explosion limits:

Autoignition temperature:

Water solubility:

Stability

Stable. Moisture sensitive. Incompatible with amines, bases, water, common metals. Releases a substantial amount of heat when diluted with water (add acid to water with care if diluting).

Toxicology

Corrosive - causes burns. Harmful if swallowed or inhaled and in contact with skin. Very irritating to eyes, skin and respiratory tract.

Toxicity data

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

ORL-RAT LD50 200 mg kg⁻¹

SKN-GPG LD50 >2000 mg kg⁻¹

IHL-RAT LC50 >300 ppm/6h

Risk phrases

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

R20 R21 R22 R34 R36 R37 R38.

Transport information

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

UN No 2586. Hazard class 8. Packing group III

Personal protection

Safety glasses, adequate ventilation.

Safety phrases

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

S1 S2 S26 S36 S45.

[Return to [Physical & Theoretical Chemistry Lab. Safety home page.](#)]

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SPECIFICATIONS

- Offered as 100 ml (sc-300963)
- CAS Number: 75-75-2
- Molecular Weight: 96.11
- Molecular Formula: CH₄O₃S
- Concentration: ~1 M in H₂O
- SMILES: CS(=O)(=O)O