

Safety (MSDS) data for tert-butyl methyl ether



General

Synonyms: methyl tert-butyl ether, MTBE, 2-methoxy-2-methylpropane, butyl methyl ether, t-butyl methyl ether, TBME, tert-butoxymethane, 1,1-dimethylethyl methyl ether, methyl 1,1-dimethylethyl ether

Molecular formula: C₅H₁₂O

CAS No: 1634-04-4

EINECS No: 216-653-1

Physical data

Appearance: 55.2 C

Melting point: -109 C

Boiling point:

Vapour density:

Vapour pressure: 245 mm Hg at 20 C

Density (g cm⁻³): 0.741

Flash point: -10 C

Explosion limits:

Autoignition temperature:

Stability

Stable, but may form explosive peroxides in contact with air. Extremely flammable - note low flash point. Incompatible with strong oxidizing agents.

Toxicology

Possible carcinogen. Harmful by inhalation, ingestion or through skin contact. Irritant. Typical OEL 100 mg/m³.

Toxicity data

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

ORL-RAT LD50 4000 mg kg⁻¹

IPN-MUS LD50 2400 mg kg⁻¹

IHL-RAT LC50 23500 ppm.

Risk phrases

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

R12 R20 R21 R22 R36 R37 R38.

Transport information

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

UN No 2398. Packing group II. Major hazard class 3.0.

Personal protection

Safety glasses, good ventilation. Take precautions against the build-up of peroxides in storage.

Safety phrases

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

S16 S26 S36.

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