

Safety data for maleic anhydride

[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: cis-butenediic anhydride, 2,5-furanedione, toxilic anhydride, dihydro-2,5-dioxofuran, lytron 810, lytron 820, NCI-C54660

Molecular formula: $C_4H_2O_3$

CAS No: 108-31-6

EC No:

Physical data

Appearance: colourless or white solid with an acrid odour

Melting point: 53 C

Boiling point: 201 C

Vapour density: 3.4 (air = 1)

Vapour pressure: 0.16 mm Hg at 20 C

Density ($g\ cm^{-3}$): 1.43

Flash point: 102 C (closed cup)

Explosion limits:

Autoignition temperature:

Water solubility: soluble; decomposes in hot solution

Stability

Stable. Combustible. Incompatible with water, strong oxidizing agents, alkali metals, strong bases, amines, most common metals, polymerization catalysts and accelerators.

Toxicology

Harmful if swallowed, inhaled or absorbed through the skin.
Corrosive - causes burns. Irritant. Typical TLV/TWA 0.25 ppm.
Typical PEL 0.25 ppm.

Toxicity data

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

ORL-RAT LD50 481 mg kg⁻¹

ORL-MUS LD50 465 mg kg⁻¹

SKN-RBT LD50 2620 mg kg⁻¹

Risk phrases

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

R20 R21 R22 R34.

Transport information

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

UN No 2215. Hazard class 8. Packing group III.

Personal protection

Safety glasses, gloves, adequate ventilation.

Safety phrases

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

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

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Product Specifications

Maleic Anhydride

Standard Grade

Appearance Clear, Molten Material

Maleic Anhydride (assay) 99.7% Minimum

Solidification Point 52.5° C Minimum

Melt Color 20 Hazen Maximum

Heat Stability Color,

2 Hours @ 140° C

40 Hazen Maximum

Acid (as maleic acid) 0.20% Maximum

CAS No: 108-31-6

Formula: $C_4H_2O_3$