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-butenedioc 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.]

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: $C_4H_2O_3$