

Safety data for gamma-butyrolactone



[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: 4-hydroxybutyric acid gamma-lactone, gamma-6480, agrisynth blo, gamma-bl, blo, blon, 4-butanolide, 1,2-butanolide, 1,4-butanolide, gamma-4-hydroxy-butyric acid, butyric acid lactone, butyrolactone, alpha-butyrolactone, 4-butyrolactone, butyryl lactone, 4-deoxytetronic acid, dihydro-2(3H)-furanone, gamma-hydroxybutyric acid cyclic ester, 2-oxolanone, tetrahydro-2-furanone

Use: synthetic reagent, ingredient in some paint removers

Molecular formula: $C_4H_6O_2$

CAS No: 96-48-0

EINECS No: 202-509-5

Physical data

Appearance: colourless oily liquid

Melting point: -45 C

Boiling point: 204 - 206 C

Vapour density:

Vapour pressure: 1.5 mm Hg at 20 C

Density ($g\ cm^{-3}$): 1.12

Flash point: 98 C (closed cup)

Explosion limits: 1.4 - 16%

Autoignition temperature:

Water solubility:

Stability

Stable. Hygroscopic. Incompatible with strong oxidizing agents, strong acids, strong bases, strong reducing agents.

Toxicology

Inhalation may be harmful. Harmful if swallowed. Severe skin irritant.

Toxicity data

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

ORL-RAT LD50 1540 mg kg⁻¹

IPR-RAT LD50 1000 mg kg⁻¹

ORL-MUS LD50 1720 mg kg⁻¹

IPR-MUS LD50 1100 mg kg⁻¹

SKN-GPG LD50 > 5000 mg kg⁻¹

IVN-RBT LDLO 500 mg kg⁻¹

Risk phrases

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

R22 R36.

Transport information

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

Non-hazardous for air, sea and road freight.

Personal protection

Safety glasses, adequate ventilation.

Safety phrases

(The meaning of any safety phrases which appear in this section

is given [here.](#))
S26 S36.

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Specification

Product Specifications	STD	EL	Method
Assay % minimum	99.8	99.9	STI8460
Water % maximum	0.02	0.02	STI8432
Acetal area ppm max.	-	50	STI8460
Color APHA maximum	20	20	STI8415
1,4 Butanediol ppm max.	2.0	2.0	STI8415
THF, area % max.	-	0.05	-
Acid, wt, % max	0.03	0.03	STI8461
Foreign matter	none	none	STI8412