

Safety data for cyclohexane

Click here for data on cyclohexane in [student-friendly format](#), from the HSci project

[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: hexamethylene, hexahydrobenzene, hexanaphthene,
RCA waste number U056
Molecular formula: C_6H_{12}
CAS No: 110-82-7
EC No: 203-806-2
Annex I Index No: 601-017-00-1

Physical data

Appearance: colourless liquid
Melting point: 7 C
Boiling point: 81 C
Specific gravity: 0.78
Vapour pressure: 77 mm Hg at 20 C
Flash point: -20 C
Explosion limits: 1.3% - 8.4%
Autoignition temperature: 260 C

Stability

Stable. Substances to be avoided include strong oxidizing agents.
Highly flammable - readily forms explosive mixtures with air.

Toxicology

Harmful if swallowed or inhaled, and through skin contact.
Respiratory, eye and skin irritant. TLV 300 ppm. Typical OEL 200 ppm. Frequent exposure may cause dermatitis.

Toxicity data

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

ORL-RAT LD50 12705 mg kg⁻¹

ORL-MUS LD50 813 mg kg⁻¹

IHL-MAM LC50 70 g m⁻³

Irritation data

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

SKN-RBT 1548 mg/2d-i

Risk phrases

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

R11 R38 R50 R53 R65 R67.

Environmental Information

Dangerous in the environment. Bioaccumulation potential: medium.

LC50 *C. auratus* 42.3 mg/l/24-96h

Transport information

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

UN No 1145. IMO 3.1/1145. Packing group II. IMDG class 3.1.

IATA 1145.

Personal protection

Safety glasses. Suitable ventilation. (Use nitrile, if gloves are required.)

Safety phrases

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

S9 S16 S33 S60 S61 S62.

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HPLC Cyclohexane Specifications

Cyclohexane is manufactured to the highest specifications to ensure the integrity of your data, maximize sensitivity in your assay and to prolong the life of your equipment. With ProteoChem's HPLC Grade Solvents, scientists can expect a consistent, high purity product which is necessary to create reliable chromatography methods and protocols. HPLC Cyclohexane is tested to meet the following specifications:

Test	Specification
Assay (GC)	$\geq 99.9\%$
LC Gradient Suitable	Passes
GC-EDC	≤ 10 ppt
Residue after Evaporation	≤ 1 ppm
Water (H ₂ O)	$\leq 0.02\%$
Optical Absorbance at:	
202 nm	≤ 1.0
205 nm	≤ 0.88
210 nm	≤ 0.67
240 nm	≤ 0.05
254 nm	≤ 0.01
Color (APHA), max	≤ 10
Fluorescence Background (as Quinine Sulfate)	≤ 1 ppb