

Safety Data Sheet

#66915211 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Hexanoyl chloride	142-61-0	CH ₃ (CH ₂) ₄ COCl	10	14 Oct 2026

SECTION 1

Identification

1.1 Product identifier

Product name Hexanoyl chloride

CAS number 142-61-0

EC / EINECS number 205-549-1

Chemical formula CH₃(CH₂)₄COCl

Molecular weight 134.60

SMILES CCCCCC(=O)Cl

1.2 Relevant identified uses of the substance or mixture and uses advised against

For research and development. Laboratory chemicals. Manufacture of substances. Not suitable for human or veterinary purposes.

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Flammable liquids, Category 3 (H226)

Skin corrosion/irritation, Category 1 (H314)

2.2 Label elements



DANGER

CODE	HAZARD STATEMENT
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H226	Flammable liquid and vapour
H314 (sub cat. 1B)	Causes severe skin burns and eye damage
H318	Causes serious eye damage

CODE	PRECAUTIONARY STATEMENT
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P210	Keep away from heat/sparks/open flames/hot surfaces - No smoking
P220	Keep/Store away from clothing/combustible materials
P233	Keep container tightly closed
P280	Wear protective gloves/protective clothing/eye protection/face protection
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+351+338	IF IN EYES: Rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

2.3 Other hazards

Does not meet the PBT or vPvB criteria of REACH Annex XIII.

SECTION 3

Composition / information on ingredients

3.1 Substances

Name	Hexanoyl chloride
CAS number	142-61-0
EC number	205-549-1
Concentration / purity	~100%
Classification according to Regulation (EC) No 1272/2008	Flammable liquids, Category 3 (H226) Skin corrosion/irritation, Category 1 (H314)
Hazard statements	H226, H314 (sub cat. 1B), H318
Acute toxicity estimate (ATE)	No data available
Impurities / stabilising additives	Not applicable

SECTION 4

First-aid measures

4.1 Description of first aid measures

Inhalation	Remove to fresh air and keep at rest; give oxygen or artificial respiration if necessary; get medical advice if breathing difficulties persist.
Skin contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
Eye contact	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
Ingestion	After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

Treat symptomatically.

4.3 Indication of any immediate medical attention and special treatment needed

Get immediate medical advice/attention.

SECTION 5

Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Carbon dioxide (CO₂), Dry powder, sand.

Unsuitable extinguishing media Do not use water jet. Foam.

5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapour; may form explosive vapour-air mixtures; decomposition produces carbon oxides and hydrogen chloride gas.

5.3 Advice for firefighters

Use self-contained breathing apparatus and chemically protective clothing; cool exposed containers with water spray; prevent firefighting water from entering the environment.

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Prevent entry to sewers and public waters; notify authorities if it enters.

6.3 Methods and material for containment and cleaning up

Contain by bunding and soak up with inert solids such as clay or diatomaceous earth; stop release if safe.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Avoid vapour formation and contact with skin, eyes and clothing; ensure adequate ventilation, do not handle in confined spaces, ground equipment against static.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature	Ambient
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Conditions for safe storage (incompatibilities)	Store in original closed container under inert gas in a cool, dry, well-ventilated place away from heat, sunlight and moisture; incompatible with strong oxidisers, alcohols, strong bases and water. Moisture sensitive.
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7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limits (OEL / WEL)	Not applicable
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DNEC/PNEC data	Not applicable
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8.2 Exposure controls

Eye / face protection	Chemical splash goggles Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.
Skin / hand protection	Gloves: Nitrile Rubber, 0.4mm (480 mins).
Respiratory protection	Full-face respirator Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.
Other protection	Emergency safety showers should be available; do not eat, drink or smoke during use.
Environmental exposure controls	Avoid release to the environment.

SECTION 9

Physical & chemical properties

9.1 Information on basic physical and chemical properties

Appearance / physical state	Clear liquid DERIVED FROM: LITERATURE
Colour	Colourless to pale yellow DERIVED FROM: LITERATURE
Odour	Not known DERIVED FROM: LITERATURE
Melting / freezing point	<i>No data available</i>
Boiling point	150 - 153 °C (lit.) DERIVED FROM: LITERATURE
Flammability	Flammable DERIVED FROM: LITERATURE
Lower and upper explosion limit	<i>No data available</i>
Flash point	50 °C DERIVED FROM: LITERATURE
Auto-ignition temperature	<i>No data available</i>
Decomposition temperature	<i>No data available</i>
pH	<i>No data available</i>
Acidity	<i>Not applicable</i>
Kinematic viscosity	<i>No data available</i>
Solubility	<i>No data available</i>
Partition coefficient n-octanol/water (log value)	<i>No data available</i>
Vapour pressure	<i>No data available</i>

Density (g/mL)	0.963 g/mL DERIVED FROM: LITERATURE
Relative vapour density	No data available
Particle characteristics	Not applicable

9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

Flammable liquid and vapour.
Vapour/air-mixtures are explosive at intense warming.

10.2 Chemical stability

Flammable liquid and vapour; may form flammable/explosive vapour-air mixture.

10.3 Possibility of hazardous reactions

Violent reactions possible with: Water, alkaline, Alcohols

10.4 Conditions to avoid

Sunlight, heat, hot surfaces, sparks, open flames and other ignition sources, moisture, water and humidity.

10.5 Incompatible materials

Strong oxidizers, alcohols, strong bases, water.

10.6 Hazardous decomposition products

Thermal decomposition generates carbon oxides (CO, CO₂) and hydrogen chloride gas.

SECTION 11

Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (LD₅₀ / LC₅₀)	Not applicable
Skin corrosion / irritation	Causes severe skin burns and eye damage.
Eye corrosion / irritation	Serious eye damage, category 1, implicit
Respiratory / skin sensitisation	Not classified
Carcinogenicity	Not classified
Mutagenicity	Not classified
Reproductive toxicity	Not classified
STOT (single / repeated exposure)	Not classified (single and repeated exposure)
Aspiration hazard	Not classified

11.2 Information on other hazards

Does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f), Regulation (EU) 2017/2100 or (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12

Ecological information

12.1 Toxicity

Not classified (acute and chronic aquatic toxicity)

12.2 Persistence and degradability

Expected to be biodegradable

12.3 Bioaccumulative potential

Bioaccumulation is unlikely

12.4 Mobility in soil

The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

12.5 Results of PBT and vPvB assessment

Does not meet the PBT or vPvB criteria of REACH Annex XIII.

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose in a safe manner in accordance with local/national regulations; handle empty containers with care as residual vapours are flammable.

SECTION 14

Transport information

14.1 UN number or ID number

UN2920

14.2 UN proper shipping name

CORROSIVE LIQUID, FLAMMABLE, N.O.S

14.3 Transport hazard class(es)

8 (3)



14.4 Packing group

II

14.5 Environmental hazards

Not dangerous for the environment; not a marine pollutant.

14.6 Special precautions for user

Special precautions for user ADR classification code CF1, Kemler No. 83; IMDG EmS F-E, S-C; causes burns to skin, eyes and mucous membranes.

Transport category 2

Tunnel code (D/E)

Packing instruction (ADR) P001

Packing instruction (IMDG) P001

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Substance-specific regulations (e.g. licences) No REACH Annex XVII restrictions; not on REACH Candidate List; Germany WGK 1 (slightly hazardous to water); Denmark: fire hazard class II-1, not to be used by persons under 18.

REACH code Y110

ECHA notification *Not applicable*

15.2 Chemical safety assessment

Not required

SECTION 16

Other information

Revision notes / other information This SDS replaces version 1.0 dated 4/23/2019.

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.