ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

2-Ethylhexyl chloroformate

Revision Date:2026-05-31 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: 2-Ethylhexyl chloroformate
CBnumber	: CB0371489
CAS	: 24468-13-1
EINECS Number	: 246-278-9
Synonyms	: 2-ETHYLHEXYL CHLOROFORMATE,Octyl chloroformate

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

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P501 Dispose of contents/container to.....

P406 Store in corrosive resistant/… container with a resistant inner liner.

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P390 Absorb spillage to prevent material damage.

P271 Use only outdoors or in a well-ventilated area.

P270 Do not eat, drink or smoke when using this product.

P264 Wash skin thouroughly after handling.

P262 Do not get in eyes, on skin, or on clothing.

P234 Keep only in original container.

P310 Immediately call a POISON CENTER or doctor/physician.

P284 Wear respiratory protection.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

Hazard statements

H330 Fatal if inhaled

H317 May cause an allergic skin reaction

H315 Causes skin irritation

H290 May be corrosive to metals

H314 Causes severe skin burns and eye damage

SECTION 3: Composition/information on ingredients

Substance

Product name	: 2-Ethylhexyl chloroformate
Synonyms	: 2-ETHYLHEXYL CHLOROFORMATE,Octyl chloroformate
CAS	: 24468-13-1
EC number	: 246-278-9
MF	: C9H17ClO2
MW	: 192.68

SECTION 4: First aid measures

If inhaled

Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

In case of skin contact

Take off all contaminated clothing immediately. If on skin, rinse well with water. If skin irritation or rash occurs: Get medical advice/ attention.

In case of eye contact

Rinse with plenty of water. If easy to do, remove contact lens, if worn. Immediately call a POISON CENTER or doctor/ physician.

If swallowed

Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.

Most important symptoms and effects, both acute and delayed

None known.

SECTION 5: Firefighting measures

Suitable extinguishing media

Dry powder, Dry sand, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water

Specific hazards during fire fighting

No information available.

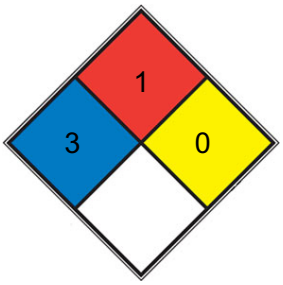
Specific extinguishing methods

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Remove undamaged containers from fire area if it is safe to do so.

Special protective equipment for fire-fighters

Use personal protective equipment.

NFPA 704



■	HEALTH	3	Short exposure could cause serious temporary or moderate residual injury (e.g. liquid hydrogen, sulfuric acid, calcium hypochlorite, hexafluorosilicic acid)
■	FIRE	1	Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. mineral oil, ammonia)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

Environmental precautions

Prevent product from entering drains.

Methods and materials for containment and cleaning up

Collect as much of the spill as possible with a suitable absorbent material.

SECTION 7: Handling and storage

Handling

Technical measures

Prevent generation of vapor or mist.

Local/Total ventilation

Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Use a local exhaust ventilation.

Advice on safe handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Wash hands and face thoroughly after handling. Open drum carefully as content may be under pressure. Keep only in original packaging.

Avoidance of contact

Oxidizing agents

Storage

Conditions for safe storage

Keep container tightly closed. Store in a cool and shaded area. Keep in a well-ventilated place. Protect from moisture. Keep under inert gas. Store locked up. Avoid exposure to light.

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures

Install a closed system or local exhaust.

Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection

Gas mask

Self-contained breathing apparatus

Eye/face protection

Safety glasses

Safety goggles

Face-shield

Skin and body protection

Impervious protective clothing

Hand protection

Impervious gloves *Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

liquid

Color

colorless - yellow

Odor

No data available

Odor Threshold

No data available

pH

No data available

Melting point/freezing point

No data available

Boiling point/boiling range

107 °C (40 hPa)

Flash point

101 °C

Evaporation rate

No data available

Flammability

No data available

Upper explosion limit / Upper flammability limit

No data available

Lower explosion limit / Lower flammability limit

No data available

Vapor pressure

133 Pa (45 °C)

Relative vapor density

> 1

Relative density

0.99

Solubility(ies)

soluble in Ether,Benzene,Chloroform

Water solubility

No data available

Solubility in other solvents

soluble Solvent: Ether soluble Solvent: Benzene soluble Solvent: Chloroform

Partition coefficient: n-octanol/water

No data available

Autoignition temperature

No data available

Decomposition temperature

No data available

Viscosity

Viscosity, dynamic

No data available

Viscosity, kinematic

No data available

Molecular weight

192.68 g/mol

Physical state

clear liquid

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

Decomposes in contact with water and liberates toxic gases.

Conditions to avoid

Exposure to moisture. Exposure to light.

Incompatible materials

Oxidizing agents

Hazardous decomposition products

Carbon monoxide, Carbon dioxide (CO2), Hydrogen chloride gas

SECTION 11: Toxicological information

Acute toxicity

Product

Acute oral toxicity

Assessment: The component/mixture is highly toxic after single ingestion.

Acute inhalation toxicity

Assessment: The component/mixture is highly toxic after short term inhalation.

Acute dermal toxicity

Assessment: The component/mixture is highly toxic after single contact with skin.

Components

2-Ethylhexyl Chloroformate

Acute oral toxicity

Assessment: The component/mixture is highly toxic after single ingestion.

Acute inhalation toxicity

Assessment: The component/mixture is highly toxic after short term inhalation.

Acute dermal toxicity

Assessment: The component/mixture is highly toxic after single contact with skin.

Skin corrosion/irritation

Product

Result

Causes burns.

Components

2-Ethylhexyl Chloroformate

Result

Causes burns.

Serious eye damage/eye irritation

Product

Result

Irreversible effects on the eye

Components

2-Ethylhexyl Chloroformate

Result

Irreversible effects on the eye

Respiratory or skin sensitization

Classified based on available data. For more details, see section 2.

Germ cell mutagenicity

Classified based on available data. For more details, see section 2.

Carcinogenicity

Classified based on available data. For more details, see section 2.

Reproductive toxicity

Classified based on available data. For more details, see section 2.

STOT-single exposure

Classified based on available data. For more details, see section 2.

STOT-repeated exposure

Classified based on available data. For more details, see section 2.

Repeated dose toxicity

Classified based on available data. For more details, see section 2.

Aspiration toxicity

Classified based on available data. For more details, see section 2.

RTECS No.

FG3660000 (2-Ethylhexyl Chloroformate)

SECTION 12: Ecological information

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13: Disposal considerations

Disposal methods

Waste from residues

Disposal in accordance with local and national regulations. Entrust disposal to a licensed waste disposal company.

Contaminated packaging

Disposal in accordance with local and national regulations. Before disposal of used container, remove contents completely.

SECTION 14: Transport information

International Regulations

IATA-DGR

UN/ID No.

UN 2748

Proper shipping name

2-Ethylhexyl chloroformate

Class

6.1

Subsidiary risk

8

Packing group

II

IMDG-Code

UN number

UN 2748

Proper shipping name

2-ETHYLHEXYL CHLOROFORMATE

Class

6.1

Subsidiary risk

8

Packing group

II

EmS Code

F-A, S-B

Domestic regulation

GB 6944/12268

UN number

UN 2748

Proper shipping name

2-ETHYLHEXYL CHLOROFORMATE

Class

6.1

Subsidiary risk

8

Packing group

II

SECTION 15: Regulatory information

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals

Listed

The ingredients of this product are reported in the following inventories

CH BAGREG

On the inventory, or in compliance with the inventory

TSCA

All substances listed as active on the TSCA inventory

AICS

On the inventory, or in compliance with the inventory

DSL

None of the components of this product are on the Canadian DSL, but all are on the NDSL 2-Ethylhexyl Chloroformate

ENCS

On the inventory, or in compliance with the inventory

ISHL

On the inventory, or in compliance with the inventory

KECI

On the inventory, or in compliance with the inventory

PICCS

On the inventory, or in compliance with the inventory

IECSC

On the inventory, or in compliance with the inventory

NZIoC

Not in compliance with the inventory

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

EC50: Effective Concentration 50%

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

DOT: US Department of Transportation

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration