

Material Safety Data Sheet

ISO NONANOYL CHLORIDE

Section 1 – Product and Company Information

Substance : 3, 5, 5-Trimethylhexanoyl Chloride
Trade Name : Iso Nonanoyl Chloride
Chemical Family : Carboxylic Acid Chloride
Company : Shiva Pharmachem Ltd.
Plot No. 588,
Village Luna – 391440
Taluka: Padra,
District: Vadodara, Gujarat
India
Phone No. : +91 2662 221021 / 224360
Fax No. : +91 2662 223314

Section 2 – Hazards Identification

2.1 Classification of the substances or mixture

Classification according to regulations (EC) no 1272 / 2008

Acute toxicity, inhalation (Category 4), Skin Corrosion, (Category 1B)

Classification according to EU directives 67/548/EEC or 1999/45/EC

Reacts violently with water, Causes, Harmful by inhalation.

2.2 Labeling elements

Labeling according to EC 1272 / 2008 (CLP)

Pictogram



Single word

Danger

Hazard Elements

H314 Causes severe skin burn and eye damage.
H332 Harmful if inhaled.
EUH014 Reacts violently with water.

Precautionary statements

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

IF IN EYES: Rinse cautiously for several minutes.
Immediately call physician

According to EU directives 67/548/EEC as amended

Hazard symbol(s)

Corrosive



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R PHRASE (s)

R14 Reacts violently with water.
R34 Causes burn.
R20 Harmful by inhalation

S PHRASE (s)

S26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice.
S27 Take off immediately all contaminated clothing.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or you feel unwell, seek medical advice. (Show the label where possible)

2.3 Other hazard

Lachrymator.

Section 3 – Composition / Information on ingredients

Product Name	CAS No.	EC No.	Mol. Formula	Mol. Weight
ISO Nonanoyl Chloride	36727-29-4	253-168-4	C ₉ H ₁₇ ClO	176.69 g/mol

Section 4 – First Aid Measures

4.1 Description of first aid measure

General advice

Consult to physician. Show this safety data to the doctor.

Inhalation

If breathed in, move person into fresh air, If Not breathing give artificial respiration. Consult physician.

Skin Contact

In Case of skin contact, flush with copious amounts of water for at least 15 minute.

Remove contaminated clothing and shoes. Call a Physician.

Eye Contact

In Case of contact with eyes, flush with copious amounts of water for at least 15 minutes.

Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Ingestion

Do not induce vomiting. If Swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

Section 5 – Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable : Carbon dioxide, dry chemical powder.

Unsuitable : Do not use water.

SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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Section 6 – Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 – Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe vapor. Do not allow to get in eyes, on skin and on clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed. Store in a cool dry place. Keep away from incompatible Materials. Do not allow contact with water.

Section 8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Use only in a chemical fume hood.

GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

Special Protective Measures: Face shield (8-inch minimum).

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Section 9 - Physical and Chemical Properties

Appearance Physical State	: Liquid
pH	: Acidic
BP/BP Range	: 188.0 - 190.0 °C at 760 mmHg
MP/MP Range	: Data not available
Flash Point	: 140 °C Method: closed cup
Flammability	:
Autoignition Temp	: 350°C
Oxidizing Properties	: Data not available
Explosive Properties	: Data not available
Explosion Limits	: LEL % (v) 17.1 ; UEL % (v) 26.3
Vapor Pressure	: 0.68 hPa 20°C, 4.90 hPa 50°C
SG/Density	: 0.93 g/cm3 at 20°C
Solvent Content	: Nil
Water Content	: Not applicable as reacts violently with water
Conductivity	: Data not available
Solubility	: Miscible with Ethylene dichloride, toluene etc

Section 10 - Stability and Reactivity

STABILITY

Stable: Chemically Stable.

Materials to Avoid: Strong oxidizing agents, Water, Alcohols, Alkali metals, Amines.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Hydrogen chloride gas.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

CORROSION TO METAL

Corrosive effect on metal.

Section 11 - Toxicological Information

ACUTE TOXICITY

LC50 Inhalation	Rat	240 ppm	4H
LD50 Oral	Rat	1700 mg/kg	

Remarks : Behavioral Somnolence (general depressed activity).

Gastrointestinal : Changes in structure or function of salivary glands.

Skin and Appendages

Other: Hair

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SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

ROUTE OF EXPOSURE

Skin Contact

Causes burns.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

Causes burns.

Inhalation

Harmful if inhaled. May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion

May be harmful if swallowed.

Section 12 - Ecological Information

Fish; Acute

Salmo gairdneri, syn O mykiss/LC50 (96 hr) 160 mg/l.

Aquatic plant

Green algae/EC50 (72 hr) 40.8 mg/l

Aquatic invertebrates; Acute

Daphnia magna/ EC50 (48 hr) 26.9 mg/l

Microorganism

Toxicity to microorganisms;

Activated sludge, domestic/EC20 (3 hrs): 450 mg/l

Degradability / persistence

Moderately / partially biodegradable.

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Section 13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose off this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

UN

UN No. : 2927
Hazard Class : 6.1 (8)
PG : II
Proper Shipping Name : Toxic liquid, Corrosive, n.o.s. (Isoonanoyl Chloride)

IMDG

UN No. : 2927
Hazard Class : 6.1 (8)
Packing Group : II
Proper Shipping Name : Toxic liquid, Corrosive, n.o.s. (Isoonanoyl Chloride)

DOT

UN No. : 2927
Hazard Class : 6.1 (8)
PG : II
Proper Shipping Name : Toxic liquid, Corrosive, n.o.s. (Isoonanoyl Chloride)

Section 15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: C

Corrosive.

R-PHRASES: 14-34-20

Reacts violently with water. Causes burns. Harmful by inhalation.

S-PHRASES: 26-27-36/37/39-45

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take off immediately all contaminated clothing. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately.

COUNTRY SPECIFIC INFORMATION

Germany
WGK: 1
ID-Number: 1880
KBwS-Decision

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Section 16 - Additional Information

NFPA Hazard Code

HEALTH: 3 FIRES: 2 REACTIVITY: 2 SPECIAL:

HMIS III rating

Health: 3 Flammability: 2 Physical Hazard: 2

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