

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Identification

1.1 Product identifiers

Product Name: 2-Ethylhexanoyl chloride

Cat No.: L03181
CAS No.: 760-67-8

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

Recommended uses: Laboratory chemicals

Uses advised against: Food, drug, pesticide or biocidal product use.

1.3 Details of the supplier of the safety data sheet

Company: Krishna Solvechem Ltd.

B/503, Shayog, S. V. Road,

Kandivali (West), Mumbai – 400067. India.

Telephone: +91-22-6123 0222

Email: exports@kscl.co.in

1.4 Emergency telephone number

Emergency Phone : +91-8657457330

SECTION 2: Hazards identification

2.1 Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Skin corrosion/Irritation | (Category 1 B) |
|------------------------------------|----------------|
| Serious Eye Damage/Eye Irritation | (Category 1) |
| Flammable liquids | (Category 4) |
| Acute oral toxicity | (Category 4) |
| Acute dermal toxicity | (Category 3) |
| Acute Inhalation toxicity – vapors | (Category 2) |

2.2 Label elements

Pictogram:



Signal word Danger



Hazard statement (s) Combustible liquid

Harmful if swallowed
Toxic in contact with skin
Causes severe skin burns

and damage.
Fatal if inhaled

Precautionary statement (s) Prevention

Wash face, hands and any exposed skin thoroughly after

handling.

Wear protective gloves/protective clothing/eye

protection/face protection.

Avoid breathing dust/fume/gas/mist/vapors/spray
Do not eat, drink, or smoke when using this product

Use only outdoors or in a well-ventilated area

Wear respiratory protection

Keep away from heat/sparks/open flames/hot

surfaces – No smoking

Keep cool.

Response:

Immediately call a POISON CENTER or

doctor/physician

IF ON SKIN (or hair):

IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water/shower Wash contaminated clothing before reuse

Eyes:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Ingestion:

IF SWALLOWED: Rinse mouth. Do not induce vomiting

Inhalation:

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Fire

In case of fire: Use CO2, dry chemical, or foam for extinction

Storage:

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal:

Dispose of contents/container to an approved waste disposal plant



Hazards not otherwise classified (HNOC)

Contact with water liberates toxic gas

SECTION 3: Composition / information on ingredients

3.1

| Component | CAS-No | Weight % |
|-----------------------------|----------|----------|
| Hexanoyl chloride, 2-ethyl- | 760-67-8 | 98 |

| | SECTION 4: First aid measures | | | | | |
|--|--|--|--|--|--|--|
| 4.1 | Description of first aid measures | | | | | |
| | If inhalation : | Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Immediate medical attention is required. | | | | |
| In case of skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required. | | | | | | |
| | In case of eye contact : | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. | | | | |
| | Ingestion: | Do NOT induce vomiting. Call a physician immediately. | | | | |
| 4.2 | Most important symptoms and effects : | Difficulty in breathing. Causes burns by all exposure routes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severedamage to the delicate tissue and danger of perforation | | | | |
| 4.3 | Notes to Physician : | Treat symptomatically | | | | |
| | SEC | TION 5: Firefighting effects | | | | |
| 5.1 | Extinguishing media | | | | | |
| | Suitable extinguishing media Unsuitable Extinguishing Media: | CO2, dry chemical, chemical foam. Water mist may be used to cool closed containers. No information available | | | | |
| 5.2 | Flash Point: Method: | $69\ ^{\circ}\text{C}\ /\ 1\ 5\ 6\ .\ 2\ ^{\circ}\text{F}$ No information available | | | | |



225 °C / 437 °F **Autoignition Temperature:**

Explosion Limits:

No data available Upper No data available Lower

Sensitivity to Mechanical

Impact

No information available

No information available

Discharge

the Chemical:

Sensitivity to Static

Specific Hazards Arising from Combustible material. Contact with water liberates toxic gas. Water reactive. Produce flammable gases on contact with

water. Containers may explode when heated.

Hazardous Combustion

Carbon monoxide (CO). Carbon dioxide (CO2). Phosgene.

Hydrogen chloride gas. **Products:**

5.4 **Protective Equipment and**

Precautions for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and

full protective gear.

NFPA:

| Health | Flammability | Instability | Physical hazards |
|--------|--------------|-------------|------------------|
| 4 | 2 | 0 | W |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Take precautionary measures against static discharges.

6.2 **Environmental precautions**

See Section 12 for additional Ecological Information

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Wear self-contained breathing apparatus and protective suit. Do not expose spill to water. Do not let this chemical enter the environment. Remove all sources of ignition.

SECTION 7: Handling and storage

7.1 **Precautions for safe handling**

Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Handle product only in closed system or provide appropriate exhaust ventilation. Handle under inert gas, protect frommoisture. Do not allow contact with water because of violent reaction. Keep away from open flames, hot surfaces and sources of ignition.



7.2 Conditions for safe storage

Keep in a dry, cool and well-ventilated place. Refer product specification and/or product label for specific storage temperature requirement. Keep container tightly closed. Protect from moisture. Corrosives area. Store under an inert atmosphere. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame.

SECTION 8: Exposure controls/personal protection

8.1 Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

8.2 Exposure controls

Personal protective equipment -

Eye / Face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice..

SECTION 9: Physical and chemical properties

| 9.1 | Information on basic physical and chemical properties | | | |
|-----|---|---|--|--|
| | a) Appearance | Form: liquid, Grey | | |
| | b) Odour | No information available | | |
| | c) Odour Threshold | No information available | | |
| | d) pH | No information available | | |
| | e) Melting point / freezing point | ng -75 °C / -103 °F | | |
| | f) Initial boiling point and | 67 - 68 °C / 152.6 - 154.4 °F @ 11 mmHg | | |



| | boiling range | | |
|------|---|---|--|
| | g) Flash point | 69 °C / 156.2 °F | |
| | h) Evaporation rate | No information available | |
| | i) Flammability (solid, gas) | Not applicable | |
| | j) Upper/lower flammability or explosive limits | No data available No data available | |
| | k) Vapour pressure | 3 hPa @ 20 °C | |
| | l) Vapour density | No information available | |
| | m) Specific Gravity | 0.950 | |
| | n) Solubility | No information available | |
| | o) Partition coefficient: n octanol/water | No data available | |
| | p) Auto-ignition temperature | 225 °C / 437 °F | |
| | q) Decomposition temperature | No information available | |
| | r) Viscosity | No information available | |
| | s) Molecular formula | C8 H15 Cl O | |
| | t) Molecular Weight | 162.66 | |
| | SECTI | ON 10: Stability and Reactivity | |
| 10.1 | Reactive Hazard : | Yes | |
| 10.2 | Chemical stability: | Moisture sensitive. | |
| 10.3 | Possibility of hazardous reactions : | None under normal processing. | |
| 10.4 | Conditions to avoid : | Incompatible products. Exposure to moist air or water. Keep away from open flames, hot surfaces and sources of ignition | |
| 10.5 | Incompatible materials: | Water, strong bases, alcohols, amines, strong oxidizing agents. | |
| 10.6 | Hazardous decomposition products : | Carbon monoxide (CO), Carbon dioxide (CO2), Phosgene, Hydrogen chloride gas | |
| 10.7 | Hazardous Polymerization | Hazardous polymerization does not occur. | |
| | | | |



SECTION 11: Toxicological information

11.1

Information on toxicological effects

Acute toxicity:

Product Information:

Toxicologically SynergisticNo information available

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-----------------------|------------------------|---------------------|--------------------------|
| Hexanoyl chloride, 2- | LD50 = 1410 mg/kg (Rat | LD50 > 2010 mg/kg (| LC50 = 1.26 mg/L (Rat) |
| ethyl- |) | Rabbit) | 1 h |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation : No information available

Sensitization: No information available

Carcinogenicity: The table below indicates whether each agency

has listed any ingredient as a carcinogen.

| Component | CAS No | IARC | NTP | ACGIH | OSHA | Mexico |
|-------------|----------|------------|------------|------------|------------|------------|
| Hexanoyl | 760-67-8 | Not listed |
| chloride,2- | | | | | | |
| ethyl- | | | | | | |

| Mutagenic Effects: | Not mutagenic in AMES Test |
|--|---|
| Reproductive Effects: | No information available. |
| Developmental Effects : | No information available. |
| Teratogenicity: | No information available. |
| STOT - single exposure : | None known |
| STOT - repeated exposure: | None known |
| Aspiration hazard : | No information available. |
| Symptoms / effects,both acute and delayed: | Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a |

corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue

and danger of perforation

Endocrine Disruptor Information : No information available

Other Adverse Effects: The toxicological properties have not been fully

investigated.



| SECTION 12: E | cological | information |
|----------------------|-----------|-------------|
| | | |

12.1

Ecotoxicity: Do not empty into drains.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|-----------------------|------------------|-------------------------|------------|------------|
| Hexanoyl chloride, 2- | Not listed | LC50: = 147 mg/L, | Not listed | Not listed |
| ethyl- | | 96h static(Danio rerio) | | |

12.2 Persistence and degradability: Persistence is unlikely based on information available

Bioaccumulation/ No information available

Accumulation

12.3 Mobility: Will likely be mobile in the environment due to its volatility.

SECTION 13: Disposal considerations

13.1 Waste treatment methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

14.1 UN number:

DOT: UN3265 **TDG:** UN3265 **IATA:** UN2927 **IMDG:** UN2927

14.2 UN proper shipping name

IMDG: Toxic liquid, corrosive, organic, n.o.s.

IATA: TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.

14.3 Transport hazard class(es) DOT: 8 TDG: 8 IMDG: 6.1 IATA: 6.1

14.4 Packaging group: DOT: II TDG: II IMDG: II IATA: II

SECTION 15: Regulatory information

15.1 United states of America Inventory:

| Component | CAS- No | TSCA | TSCA Inventory notification Active/Inactive | TSCA - EPA Regulatory Flags |
|-----------------------------|------------|------|---|--------------------------------|
| Hexanoyl chloride, 2-ethyl- | 760-67-8 | X | ACTIVE | - |

Legend:



TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories:

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

| Component | CAS No | DSL | NDSL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|--------------------------------|----------|-----|------|-----------|-------|------|------|------|----------|-----------------|
| Hexanoyl chloride, 2-ethyl- | 760-67-8 | - | Х | 212-081-1 | Х | Х | Х | Х | KE-13770 | 2002-3- 2130 |

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and

Health Administration

Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any

Proposition 65 chemicals.

15.2 U.S. State Right-to-Know Regulations:

Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N



U.S. Department of Homeland - This product does not contain the any DHS Chemicals. **Security**

Other International Regulations

Mexico – Grade No information available

SECTION 16: Other information

16.1 Prepared By: Regulatory affairs

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Revision Date: 14-Feb-2020 **Print Date:** 14-Feb-2020

Revision Summary: This document has been updated to comply with the US OSHA

HazCom 2012 Standard replacing the current legislation under 29 C FR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

16.2 Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.