# Chemical Book India

| Chernical Doc   |                         |   |                         |                         |                         |                         |                         |  |  |
|---|-------------------------|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--|--|
| AL  | 2                       | Chem  | ical Safety             | Data Shee               | t MSDS / S              | SDS                     | THE STATE               |  |  |
| Tetrahydrofuran-3-carbonyl chloride SDS<br>Revision Date: 2024-04-25 Revision Number: 1                 |                         |   |                         |                         |                         |                         |                         |  |  |
| Section 1<br>Section 9  | Section 2<br>Section 10 | Section 3<br>Section 11   | Section 4<br>Section 12 | Section 5<br>Section 13 | Section 6<br>Section 14 | Section 7<br>Section 15 | Section 8<br>Section 16 |  |  |
| SECTION 1: Identification of the substance/mixture and of the company/undertaking<br>Product identifier |                         |   |                         |                         |                         |                         |                         |  |  |
|   |                         |   |                         |                         |                         |                         |                         |  |  |
| Product name:   |                         | Tetrahydrofuran-3-carbonyl chloride   |                         |                         |                         |                         |                         |  |  |
| CAS:  |                         | 69595-02-4  |                         |                         |                         |                         |                         |  |  |
| Relevant identified uses of the substance or mixture and uses advised against                           |                         |   |                         |                         |                         |                         |                         |  |  |
| Relevant identified<br>uses:  |                         | For R&D use only. Not for medicinal, household or other use.                |                         |                         |                         |                         |                         |  |  |
| Uses advised<br>against:  | d                       | none  |                         |                         |                         |                         |                         |  |  |
| Company lo  | lentification           |   |                         |                         |                         |                         |                         |  |  |
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# **SECTION 2: Hazards identification**

# Classification of the substance or mixture

Acute toxicity - Category 4, Oral Skin corrosion, Sub-category 1B Serious eye damage, Category 1

### GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Danger

### Hazard statement(s)

H302 Harmful if swallowed H314 Causes severe skin burns and eye damage

### Precautionary statement(s)

### Prevention

P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

## Response

P301+P317 IF SWALLOWED: Get medical help.
P330 Rinse mouth.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P316 Get emergency medical help immediately.
P321 Specific treatment (see ... on this label).
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
P317 Get medical help.

### Storage

P405 Store locked up.

## Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

### Other hazards which do not result in classification

no data available

# SECTION 3: Composition/information on ingredients

| Substance                  |                                     |
|----------------------------|-------------------------------------|
| Chemical name:             | Tetrahydrofuran-3-carbonyl chloride |
| Common names and synonyms: | Tetrahydrofuran-3-carbonyl chloride |
| CAS number:                | 69595-02-4                          |
| EC number:                 | -                                   |
| Concentration:             | 100%                                |

# **SECTION 4: First aid measures**

### Description of necessary first-aid measures

### If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

## Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

### Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

### Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

### Most important symptoms/effects, acute and delayed

no data available

### Indication of immediate medical attention and special treatment needed, if necessary

no data available

# **SECTION 5: Firefighting measures**

### Suitable extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

### Specific hazards arising from the chemical

no data available

### Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

# SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

### Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance

with appropriate laws and regulations.

# **SECTION 7: Handling and storage**

### Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

# SECTION 8: Exposure controls/personal protection

#### **Control parameters**

#### Occupational Exposure limit values

no data available

### Biological limit values

no data available

### Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### Individual protection measures, such as personal protective equipment (PPE)

### Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

### Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived

# from it.

## Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

# Thermal hazards

no data available

# SECTION 9: Physical and chemical properties and safety characteristics

| Physical state:  | no data available                      |
|--|--|
| Colour:  | no data available                      |
| Odour:   | no data available                      |
| Nelting<br>point/freezing<br>point:  | no data available                      |
| Boiling point or<br>initial boiling point<br>and boiling range:                          | no data available                      |
| Flammability:  | no data available                      |
| Lower and upper<br>explosion<br>limit/flammability                                       | no data available                      |
| limit:   |  |
| -  | no data available                      |
| limit:   | no data available<br>no data available |
| limit:<br>Flash point:<br>Auto-ignition  |  |
| limit:<br>Flash point:<br>Auto-ignition<br>temperature:<br>Decomposition                 | no data available                      |
| limit:<br>Flash point:<br>Auto-ignition<br>temperature:<br>Decomposition<br>temperature: | no data available<br>no data available |

| Partition<br>coefficient n-<br>octanol/water: | no data available |
|---|-------------------|
| Vapour pressure:                              | no data available |
| Density and/or<br>relative density:           | no data available |
| Relative vapour<br>density:                   | no data available |
| Particle<br>characteristics:                  | no data available |

# SECTION 10: Stability and reactivity

Reactivity

no data available

# Chemical stability

no data available

## Possibility of hazardous reactions

no data available

## Conditions to avoid

no data available

# Incompatible materials

no data available

# Hazardous decomposition products

no data available

# SECTION 11: Toxicological information

Acute toxicity Oral: no data available Inhalation: no data available Dermal: no data available

## Skin corrosion/irritation

no data available

## Serious eye damage/irritation

no data available

**Respiratory or skin sensitization** no data available

# Germ cell mutagenicity

no data available

# Carcinogenicity

no data available

# Reproductive toxicity

no data available

# STOT-single exposure

no data available

# STOT-repeated exposure

no data available

## Aspiration hazard

no data available

## **SECTION 12: Ecological information**

### Toxicity

Toxicity to fish: no data available Toxicity to daphnia and other aquatic invertebrates: no data available Toxicity to algae: no data available Toxicity to microorganisms: 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

## Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

## Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

# **SECTION 14: Transport information**

## **UN Number**

ADR/RID: no data available IMDG: no data available IATA: no data available

### **UN Proper Shipping Name**

ADR/RID: no data available IMDG: no data available IATA: no data available

### Transport hazard class(es)

ADR/RID: no data available IMDG: no data available IATA: no data available

## Packing group, if applicable

ADR/RID: no data available IMDG: no data available IATA: no data available

## Environmental hazards

ADR/RID: No IMDG: No IATA: No

### Special precautions for user

no data available

### Transport in bulk according to IMO instruments

no data available

# **SECTION 15: Regulatory information**

Safety, health and environmental regulations specific for the product in question European Inventory of Existing Commercial Chemical Substances (EINECS) Not Listed. EC Inventory Not Listed. United States Toxic Substances Control Act (TSCA) Inventory Not Listed. China Catalog of Hazardous chemicals 2015 Not Listed. New Zealand Inventory of Chemicals (NZIoC) Not Listed. (PICCS) Not Listed. Vietnam National Chemical Inventory Not Listed. IECSC) Not Listed. Korea Existing Chemicals List (KECL) Not Listed.

## **SECTION 16: Other information**

#### Abbreviations and acronyms

CAS: Chemical Abstracts Service

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

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

### References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=O&request\_locale=en

CAWEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the

properties of the product. We as supplier shall not be held liable for any