## 1. IDENTIFICATION

<table>
<thead>
<tr>
<th>Product name:</th>
<th>Dimethylcarbamoyl Chloride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code:</td>
<td>D0695</td>
</tr>
<tr>
<td>Product use:</td>
<td>For laboratory research purposes.</td>
</tr>
<tr>
<td>Restrictions on use:</td>
<td>Not for drug or household use.</td>
</tr>
</tbody>
</table>

Company:
TCI America  
9211 N. Harborgate Street  
Portland, OR 97203 U.S.A.  
Telephone: +1-800-423-8616 / +1-503-283-1681  
Fax: +1-888-520-1075 / +1-503-283-1987  
e-mail: sales-US@TCIchemicals.com  
www.TCIchemicals.com

### Emergency telephone number:
- Chemical Emergencies: TCI America (8:00am - 5:00pm) PST  
  +1-503-286-7624  
- Transportation Emergencies: Chemtrec 24-Hour  
  +1-800-424-9300 (U.S.A.)  
  +1-703-527-3887 (International)

### Responsible department:
TCI America  
Environmental Health Safety and Security  
+1-503-286-7624

## 2. HAZARD(S) IDENTIFICATION

### OSHA Haz Com: CFR 1910.1200:
- Acute Toxicity - Oral [Category 4]
- Acute Toxicity - Inhalation [Category 2]
- Eye Damage/Irritation [Category 1]
- Germ Cell Mutagenicity [Category 2]
- Carcinogenicity [Category 1B]
- Specific Target Organ Toxicity (Single Exposure) [Category 1]
- Flammable Liquids [Category 4]
- Corrosive to Metals [Category 1]
- Aquatic Hazard (Acute) [Category 2]
- Skin Corrosion/Irritation [Category 1B]

### WHMIS 2015:
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- Flammable Liquids [Category 4]
- Corrosive to Metals [Category 1]
- Aquatic Hazard (Acute) [Category 2]
- Skin Corrosion/Irritation [Category 1B]

### Signal word:
Danger!

### Hazard Statement(s):
- Combustible liquid
- May be corrosive to metals
- Harmful if swallowed
- Fatal if ingested
- Causes severe skin burns and eye damage
- Suspected of causing genetic defects
- May cause cancer
- Toxic to aquatic life
- Causes damage to: Respiratory System

### Pictogram(s) or Symbol(s):

### Precautionary Statement(s):

#### [Prevention]
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from flames and hot surfaces. – No smoking. Keep only in original container. Do not breathe mist, vapors or spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. Wear respiratory protection. Wear protective gloves, protective clothing, face protection. If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a poison center or doctor. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor. If exposed: Call a poison center or doctor. In case of fire: Use dry chemical, dry sand or foam to extinguish. Absorb spillage to
prevent material damage.

[Storage]
Store in corrosive resistant bottle or metal container with a resistant inner liner. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

[Disposal]
Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40 CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.).

Hazards not otherwise classified: Lachrymator

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance/mixture:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Components:</td>
<td>Dimethylcarbamoyl Chloride</td>
</tr>
<tr>
<td>Percent:</td>
<td>&gt;98.0%(GC)(T)</td>
</tr>
<tr>
<td>CAS RN:</td>
<td>79-44-7</td>
</tr>
<tr>
<td>Molecular Weight:</td>
<td>107.54</td>
</tr>
<tr>
<td>Chemical Formula:</td>
<td>C_3H_6ClNO</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

Description of first aid measures

**Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

**Skin contact:** Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Get medical advice/attention.

**Eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention.

**Ingestion:** Get medical advice/attention. Rinse mouth.

Symptoms/effects:

**Acute:** Pain. Redness.

**Delayed:** May cause heritable genetic damage in humans. May have effects on the respiratory tract. Possibly carcinogenic to humans.

Indication of any immediate medical attention:

Not available.

Notes to physician:

No data available

5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Dry chemical, carbon dioxide.

**Unsuitable extinguishing media:** Water

**Hazardous combustion products:** These products include: Carbon oxides Nitrogen oxides Halogenated compounds

**Other specific hazards:** WARNING: Highly toxic HCl gas is produced during combustion.

Advice for firefighters:

Wear self-contained breathing apparatus if possible.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Use personal 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:** Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, saw-dust). In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

**Prevention of secondary hazards:** Do not allow contact with water. Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.
7. HANDLING AND STORAGE

Precautions for safe handling: Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Keep away from flames and hot surfaces. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated. Avoid all contact! May develop pressure. Open carefully.

Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store under inert gas. Protect from moisture. Store locked up. Store away from incompatible materials such as oxidizing agents. Moisture-sensitive

Packaging material: Comply with laws.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls: Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust. Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection: Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.

Hand protection: Impervious gloves.

Eye protection: Safety goggles. A face-shield, if the situation requires.

Skin and body protection: Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Liquid

Form: Clear

Colour: Colorless  - Slightly pale yellow

Odour: Pungent

Odor threshold: No data available

Melting point/freezing point: No data available

Boiling point/range: 167°C  (333°F)

Decomposition temperature: No data available

Relative density: 1.17

Kinematic viscosity: No data available

Log Pow: No data available

Vapour density: 3.73

Dynamic Viscosity: No data available

Evaporation rate(Butyl Acetate=1): No data available

Flash point: 82°C  (180°F)

Flammability(solid, gas): No data available

Autoignition temperature: 410°C  (770°F)

Flammability or explosive limits:

Lower: 4.8%

Upper: 19.2%

Solubility(ies):

[Water] No data available

[Other solvents] Many organic solvents

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under proper conditions.

Possibility of hazardous reactions: Decomposes in contact with water and liberates toxic gases.

Conditions to avoid: Open flame, Moisture

Incompatible materials: Oxidizing agents, Strong bases, Water, Alcohols, Amines

Hazardous decomposition products: Carbon monoxide, carbon dioxide etc.
11. TOXICOLOGICAL INFORMATION

RTECS Number: FD4200000

Acute Toxicity:
orl-rat LD50: 1 g/kg
ipr-mus LD50: 300 mg/kg
ihl-rat LC50: 180 ppm/6H

Skin corrosion/irritation:
No data available

Serious eye damage/irritation:
No data available

Respiratory or skin sensitization:
No data available

Germ cell mutagenicity:
dns-hmn-fbr 32 ug/L
mmo-sat 300 ng/plate (-S9)
mmo-esc 100 ug/plate (+/-S9)

Carcinogenicity:

skn-mus TDLo: 17280 mg/kg/72W-I
ihl-ham TCLo: 1 ppm/6H/89W-I
scu-mus TDLo: 894 mg/kg/52W-I

IARC: Group 2A (Probably carcinogenic to humans).
NTP: b (Reasonably anticipated to be carcinogens).
OSHA: No data available

Reproductive toxicity:
No data available

Target organ(s):
Causes damage to: Respiratory System

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Fish: No data available
Crustacea: No data available
Algae: No data available

Persistence / degradability: No data available
Bioaccumulative potential (BCF): No data available
Mobility in soil
Log Pow: -0.72
Soil adsorption (Koc): No data available
Henry's Law (Pa M^3/mol): No data available

13. DISPOSAL CONSIDERATIONS

Disposal of product: Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.

Disposal of container: Dispose of as unused product. Do not re-use empty containers.

Other considerations: Observe all federal, state and local regulations when disposing of the substance.
14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>DOT (US)</th>
<th>Proper Shipping Name: Dimethylcarbamoyl chloride</th>
<th>Class or Division: 8 Corrosive material</th>
<th>Packing Group: II</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN2262</td>
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</tbody>
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<table>
<thead>
<tr>
<th>IATA</th>
<th>Proper Shipping Name: Dimethylcarbamoyl chloride</th>
<th>Class or Division: 8 Corrosive material</th>
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<tr>
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EmS number: F-A, S-B
Reportable Quantity: 1 Pound (0.454 Kilograms)

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):
This product is on the EPA Toxic Substances Control Act (TSCA) inventory.

US Federal Regulations
CERCLA Hazardous substance and Reportable Quantity:
- SARA 313: Listed
- SARA 302: Not Listed

State Regulations
State Right-to-Know
- Massachusetts: Listed
- New Jersey: Listed
- Pennsylvania: Listed
- California Proposition 65: Listed

Other Information
NFPA Rating: Health: 4, Flammability: 2, Instability: 0
HMIS Classification: Health: 3, Flammability: 2, Physical: 0

International Inventories
- Canada: NDSL
- EC-No: 201-208-6

16. OTHER INFORMATION

Revision date: 07/06/2018
Revision number: 1
TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.