1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Name: 1,1'-Carbonylbis(3-methylimidazolium) Triflate

Catalogue #: C177000

Company: Toronto Research Chemicals
2 Brisbane Road
Toronto, ON M3J 2J8
CANADA

Telephone: +14166659696
FAX: +14166654439
Emergency#: +14166659696
Email: orders@trc-canada.com

2. HAZARDS IDENTIFICATION

WHMIS Classification
D2B Toxic Material Causing Other Toxic Effects
Moderate skin irritant
Moderate respiratory irritant
Moderate eye irritant

HMIS Classification
Health hazard: 2
Flammability: 0
Physical hazards: 0

Potential Health Effects
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: Causes eye irritation.
Ingestion: May be harmful if swallowed.

GHS Classification
Skin irritation (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity - single exposure, respiratory tract (Category 3)

GHS Label elements, including precautionary statements
Signal word: Warning

Hazard statement(s)
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statement(s)
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P302/P352 IF ON SKIN: Gently wash with plenty of soap and water.
P305/P351/P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

GHS Label Pictogram
3. COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Formula: \(C_{11}H_{12}F_{6}N_{4}O_{7}S_{2}\)

Molecular Weight: 490.36

CAS Registry #: 120418-31-7

EC#: 1,1'-Carbonylbis[3-methyl-1H-imidazolium 1,1,1-Trifluoromethanesulfonate;

Synonyms:

4. FIRST AID MEASURES

General Advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust or aerosol formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Toronto Research Chemicals - C177000
Avoid contact with skin and eyes. Avoid formation of dust or aerosols. Provide appropriate exhaust ventilation at places where dust/aerosol is formed. Normal measures for preventative fire protection.

**Conditions for safe storage**
Keep container tightly closed in a dry and well-ventilated place. Hygroscopic. Store at -20°C under inert atmosphere.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

**Respiratory protection**
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection**
Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection**
Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Specific engineering controls**
Use mechanical exhaust or laboratory fume hood to avoid exposure.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
White solid

**Safety data**

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<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
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<td>Melting point</td>
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<tr>
<td>pH</td>
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<tr>
<td>Upper explosion limit</td>
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<tr>
<td>Water solubility</td>
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</table>

### 10. STABILITY AND REACTIVITY

**Chemical stability**
Stable under recommended storage conditions.

**Conditions to avoid**
no data available

**Materials to avoid**
Strong oxidizing agents.

**Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions: carbon oxides, nitrogen oxides, sulfur oxides, hydrogen fluoride.

Toronto Research Chemicals - C177000
11. TOXICOLOGICAL INFORMATION

Acute toxicity
no data available

Irritation and corrosion
Eye/skin/respiratory irritant

Sensitization
no data available

Carcinogenicity
IARC: To the best of our knowledge, this compound has not been identified as a possible or potential human carcinogen by IARC.

Reproductive toxicity/Teratogenicity
no data available

Germ Cell Mutagenicity
no data available

Potential health effects

Inhalation  May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion  May be harmful if swallowed.
Skin  May be harmful if absorbed through skin. Causes skin irritation.
Eyes  Causes eye irritation.

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information
RTECS: not listed

12. ECOLOGICAL INFORMATION

Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)/IMDG/IATA
Not dangerous goods

15. REGULATORY INFORMATION

DSL Status
Product is not on the Canadian DSL/NDSL list.

WHMIS Classification
D2B  Toxic Material Causing Other Toxic Effects  Moderate skin irritant
Moderate respiratory irritant

Toronto Research Chemicals - C177000
16. OTHER INFORMATION

Further information
Copyright 2010 Toronto Research Chemicals Inc. Copies may be made for internal use only. The above information is believed to be correct to the best of our knowledge, but is not to be deemed as all-inclusive and is to be only used as a guide. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Please take all due care when handling this product.