1. Product and Company Identification

Product identifier: Di-Isobutyl Ketone
Version #: 01
Issue date: 06-05-2014
CAS #: Mixture
MSDS Number: COM126
Product use: Professional use only
Manufacturer information: Refer to supplier
Supplier: Comet Chemical
3463 Thomas Street
Innisfill, ON L9S 3W4 CA
Information (M-F 8:00-5:00): 705-436-5580
24 Hour Number (Newalta): 800-567-7455

2. Hazards Identification

Emergency overview: Clear, colorless liquid with mild odor.

WARNING: Combustible liquid and vapor. May be ignited by heat, sparks or flames. May cause eye and skin irritation. May cause central nervous system effects. May cause irritation to the nose, throat and upper respiratory tract. May be an aspiration hazard.

Potential health effects

Routes of exposure: Inhalation. Ingestion. Eye contact. Skin contact.

Eyes: Direct contact may cause very mild, temporary irritation and redness.

Skin: Direct skin contact may cause slight or mild, transient irritation.

Inhalation: May cause central nervous system effects. May cause irritation to the nose, throat and upper respiratory tract.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.


Chronic effects: Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Chronic skin contact with low concentrations may cause dermatitis. Prolonged or repeated overexposure may cause liver and kidney effects.

Signs and symptoms: Direct eye contact may cause slight or mild, transient irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct eye contact may cause slight or mild, transient irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause irritation to the nose, throat and upper respiratory tract. May cause central nervous system effects. Ingestion of large amounts may cause nausea, vomiting, diarrhea, as well as depression of the central nervous system. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

Potential environmental effects: See ECOLOGICAL INFORMATION, Section 12.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diisobutyl Ketone</td>
<td>108-83-8</td>
<td>80-95</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-hazardous components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-heptanone, 4,6-dimethyl-</td>
<td>19549-80-5</td>
<td>10-15</td>
</tr>
<tr>
<td>2,6-dimethyl-4-heptanol</td>
<td>108-82-7</td>
<td>&lt;2</td>
</tr>
</tbody>
</table>
4. First Aid Measures

First aid procedures

**Eye contact**
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Skin contact**
Take off immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical advice/attention if you feel unwell. Wash contaminated clothing before reuse.

**Inhalation**
Move to fresh air. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration. Get medical attention, if needed.

**Ingestion**
Rinse mouth. Do not induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions.

Notes to physician
Treat symptomatically. This product is a CNS depressant. Aspiration hazard.

General advice
If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties
Combustible by WHMIS criteria. Combustible liquid and vapor. Heat may cause the containers to explode. Runoff to sewer may cause fire or explosion hazard. Material will float on water and can be re-ignited at the water’s surface.

Extinguishing media

**Suitable extinguishing media**
Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.

Protection of firefighters

**Specific hazards arising from the chemical**
The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. After prolonged storage, may release explosive peroxides in the presence of air.

**Protective equipment for firefighters**
Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire fighting equipment/instructions
Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Evacuate area and fight fire from a safe distance. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.

Specific methods
Cool containers exposed to flames with water until well after the fire is out.

Explosion data

**Sensitivity to static discharge**
May be sensitive to static discharge.

**Sensitivity to mechanical impact**
Not expected to be sensitive to mechanical impact.

Hazardous combustion products
Burning will produce toxic fumes containing carbon monoxide and carbon dioxide. Other irritating fumes and smoke.

General fire hazards
Material will float on water and can be re-ignited at the water’s surface.

6. Accidental Release Measures

Personal precautions
Ventilate the contaminated area. Ensure adequate ventilation. Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the MSDS.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

Methods for containment
Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop the flow of material, if this is without risk. Take precautionary measures against static discharge. Use only non-sparking tools. Use water spray to reduce vapors or divert vapor cloud drift. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up
Ventilate the contaminated area. Extinguish all flames in the vicinity. Wear appropriate protective equipment and clothing during clean-up. Stop the flow of material, if this is without risk. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Dike the spilled material, where this is possible. For waste disposal, see section 13 of the MSDS.
7. Handling and Storage

Handling
Use only outdoors or in a well-ventilated area. Do not use in areas without adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not use non-sparking tools. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Storage
Store locked up. Do not handle or store near an open flame, heat or other sources of ignition. Keep away from heat and sources of ignition. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Keep container tightly closed. Store in original tightly closed container. Store away from incompatible materials. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. After prolonged storage, may release explosive peroxides in the presence of air.

8. Exposure Controls / Personal Protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disobutyl Ketone (CAS 108-83-8)</td>
<td>TWA</td>
<td>25 ppm</td>
</tr>
</tbody>
</table>

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disobutyl Ketone (CAS 108-83-8)</td>
<td>PEL</td>
<td>290 mg/m3</td>
</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).

Engineering controls
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas. Eye wash facilities and emergency shower must be available when handling this product.

Personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles). Face shield is recommended. Eye wash fountain is recommended.

Skin protection
Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A NIOSH/MSHA approved air-purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may be used to reduce exposure. Advice should be sought from respiratory protection specialists.

Hand protection
Gloves impervious to the material are recommended. Neoprene or butyl rubber gloves are recommended. Advice should be sought from glove suppliers.

9. Physical & Chemical Properties

Appearance
Clear, colorless liquid with mild odor.

Physical state
Liquid.

Form
Liquid.

Color
Colorless

Odor
Mild.

Odor threshold
0.11 ppm

pH
Not available.

Vapor pressure
2.3 mbar

Vapor density
4.9

Boiling point
325.4 °F (163 °C)
Melting point/Freezing point  
-42.7 °F (-41.5 °C) estimated

Solubility (water)  
Insoluble

Specific gravity  
0.81

Relative density  
Not available.

Flash point  
120.0 °F (48.9 °C)

Flammability limits in air, upper, % by volume  
6.2 %

Flammability limits in air, lower, % by volume  
0.8 %

Auto-ignition temperature  
745 °F (396.11 °C)

Evaporation rate  
Not available.

Partition coefficient (n-octanol/water)  
Not available.

Other data  
Density 0.81 g/cm³

10. Chemical Stability & Reactivity Information

Reactivity  
The product is stable and non-reactive under normal conditions of use, storage and transport. May form explosive mixtures with air.

Chemical stability  
Material is stable under normal conditions.

Conditions to avoid  
Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials. Do not use in areas without adequate ventilation. Exposure to air.

Incompatible materials  
Strong oxidizing agents.

Hazardous decomposition products  
None known, refer to hazardous combustion products in Section 5. The following may be released during a fire: Carbon oxides. Other irritating fumes and smoke.

Possibility of hazardous reactions  
Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-dimethyl-4-heptanol (CAS 108-82-7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>4591 mg/kg</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>No Data in Literature</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>3560 mg/kg</td>
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<tr>
<td>2-heptanone, 4,6-dimethyl- (CAS 19549-80-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>No Data in Literature</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>No Data in Literature</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>No Data in Literature</td>
</tr>
<tr>
<td>Diisobutyl Ketone (CAS 108-83-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>6120 mg/kg</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>&gt; 14.5 mg/l</td>
</tr>
</tbody>
</table>

Material name: Di-Isobutyl Ketone

MSDS No. COM126  Version #: 01  Issue date: 06-05-2014
Components | Species | Test Results
---|---|---
Oral LD50 | Rat | 5750 mg/kg

**Acute effects**
This product is not classified as an acute toxicity hazard. See data for individual ingredient acute toxicity data.

**Sensitization**
Not expected to be a skin or respiratory sensitizer.

**Chronic effects**
Not expected to be hazardous by WHMIS criteria. Chronic skin contact with low concentrations may cause dermatitis. Prolonged or repeated overexposure may cause liver and kidney effects.

**Carcinogenicity**
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Skin corrosion/irritation**
Direct skin contact may cause slight or mild, transient irritation.

**Serious eye damage/irritation**
Direct contact may cause very mild, temporary irritation and redness.

**Mutagenicity**
Not expected to be mutagenic.

**Reproductive effects**
This product is not expected to cause reproductive or developmental effects.

**Teratogenicity**
This product is not expected to be a teratogen.

**Symptoms and target organs**
Direct eye contact may cause slight or mild, transient irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct skin contact may cause slight or mild, transient irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause irritation to the nose, throat and upper respiratory tract. May cause central nervous system effects. Ingestion of large amounts may cause nausea, vomiting, diarrhea, as well as depression of the central nervous system. May be an aspiration hazard. Aspiration may occur during swallowing or vomiting, resulting in lung injury.

**Epidemiology**
No epidemiological data is available for this product.

**Synergistic materials**
Not available.

### 12. Ecological Information

**Ecotoxicological data**

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-dimethyl-4-heptanol (CAS 108-82-7)</td>
<td>2,6-Dimethyl-4-heptanol</td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algae</td>
<td>EC50</td>
<td>Green algae (Selenastrum capricornutum)</td>
</tr>
<tr>
<td>Crustacea</td>
<td>LC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>Diisobutyl Ketone (CAS 108-83-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algae</td>
<td>EC50</td>
<td>Green Algae (Pseudokirchneriella subcapitata)</td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
</tr>
</tbody>
</table>

**Ecotoxicity**
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Environmental effects**
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Aquatic toxicity**
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Persistence and degradability**
No data is available on the degradability of this product.

**Mobility in environmental media**
The product is immiscible with water.
13. Disposal Considerations

**Disposal instructions**
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.

**Waste from residues / unused products**
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**
Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

**TDG**

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN1157</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>DIISOBUTYL KETONE</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>3</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Not available.</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, MSDS and emergency procedures before handling.</td>
</tr>
</tbody>
</table>

**IATA**

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN1157</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>DIISOBUTYL KETONE</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>3</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
</tr>
<tr>
<td>ERG Code</td>
<td>3L</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, MSDS and emergency procedures before handling.</td>
</tr>
<tr>
<td>Other information</td>
<td></td>
</tr>
<tr>
<td>Passenger and cargo aircraft</td>
<td>Allowed.</td>
</tr>
<tr>
<td>Cargo aircraft only</td>
<td>Allowed.</td>
</tr>
</tbody>
</table>

**IMDG**

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN1157</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>DIISOBUTYL KETONE</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>3</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
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</tr>
<tr>
<td>Marine pollutant</td>
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</tr>
<tr>
<td>EmS</td>
<td>F-E, S-D</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, MSDS and emergency procedures before handling.</td>
</tr>
</tbody>
</table>

IATA; IMDG; TDG
15. Regulatory Information

Canadian regulations
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status
Controlled

WHMIS classification
B3 - Combustible Liquids

WHMIS labeling

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

HMIS® ratings
Health: 2*
Flammability: 2
Physical hazard: 0

NFPA ratings
Health: 2
Flammability: 2
Instability: 0

Disclaimer
Prepared by: ICC The Compliance Center Inc. 1-888-442-9628
http://www.thecompliancecenter.com

Disclaimer
This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by / obtained from Comet Chemical Company Ltd. and CCOHS’ Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Comet Chemical Company Ltd. expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Comet Chemical Company Ltd. The information in the sheet was written based on the best knowledge and experience currently available.
Legend to abbreviations and acronyms used in the SDS

ACGIH: American Conference of Governmental Industrial Hygienists
CEPA: Canadian Environmental Protection Act
DSL: Domestic Substance List
HMIS: Hazardous Materials Identification System
HPA: Hazardous Protection Act
HSDB® - Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods
IUCLID: International Uniform Chemical Information Database
LC: Lethal Concentration
LD: Lethal Dose
MSDS: Material Safety Data Sheet
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OEL: National occupational exposure limits
OSHA: Occupational Safety and Health Administration
PPE: Personal Protective Equipment
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TWA: Time Weighted Average

References

Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2014 (Chempendium, RTECs, HSDB, INCHEM)
Material Safety Data Sheet from manufacturer.