1. Product and Company Identification

Use: Product for construction chemicals

Company
BASF Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1, CANADA

24 Hour Emergency Response Information
CANUTEC (reverse charges): (613) 996-6666
BASF HOTLINE: (800) 454-COPE (2673)

2. Hazards Identification

Emergency overview
COMBUSTIBLE. SENSITIZER. IRRITANT. CONTAINS MATERIAL WHICH CAN CAUSE CANCER. May cause sensitization by inhalation and skin contact. Irritating to eyes, respiratory system and skin.

State of matter: solid
Colour: pigmented
Odour: slight odour

Potential health effects
Acute toxicity: May be harmful if inhaled.

Irritation / corrosion: Irritating to eyes, respiratory system and skin.

Sensitization: Sensitization after skin contact possible. The substance may cause sensitization of the respiratory tract.

Chronic toxicity:
Repeated dose toxicity: Overexposure may cause CNS depression including headache, dizziness, nausea and loss of consciousness.

Signs and symptoms of overexposure: In sensitized individuals, sensitization reactions may be elicited by structurally similar substances. Respiratory sensitization may result in allergic (asthma-like) signs in the lower respiratory tract including wheezing,
shortness of breath and difficulty breathing, the onset of which may be delayed. Repeated inhalation of high concentrations may cause lung damage, including reduced lung function, which may be permanent. Substances eliciting lower respiratory tract irritation may worsen the asthma-like reactions that may be produced by product exposures.

Potential environmental effects
Aquatic toxicity:
The product has not been tested.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Content (W/W)</th>
<th>Hazardous ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1317-65-3</td>
<td>&gt;= 10.0 - &lt;= 30.0 %</td>
<td>Limestone</td>
</tr>
<tr>
<td>14807-96-6</td>
<td>&gt;= 3.0 - &lt;= 7.0 %</td>
<td>talc</td>
</tr>
<tr>
<td>13463-67-7</td>
<td>&gt;= 3.0 - &lt;= 7.0 %</td>
<td>Titanium dioxide</td>
</tr>
<tr>
<td>53306-54-0</td>
<td>&gt;= 1.0 - &lt;= 5.0 %</td>
<td>bis(2-propylheptyl) phthalate</td>
</tr>
<tr>
<td>8052-41-3</td>
<td>&gt;= 1.0 - &lt;= 5.0 %</td>
<td>Stoddard solvent</td>
</tr>
<tr>
<td>1305-78-8</td>
<td>&gt;= 0.5 - &lt;= 1.5 %</td>
<td>calcium oxide</td>
</tr>
<tr>
<td>91-08-7</td>
<td>&gt;= 0.5 - &lt;= 1.5 %</td>
<td>toluene-2,6-diisocyanate</td>
</tr>
<tr>
<td>584-84-9</td>
<td>&gt;= 0.1 - &lt;= 1.0 %</td>
<td>toluene-2,4-diisocyanate</td>
</tr>
</tbody>
</table>

4. First-Aid Measures

General advice:
Remove contaminated clothing.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:
Wash affected areas thoroughly with soap and water. Consult a doctor if skin irritation persists.

If in eyes:
In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

If swallowed:
Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

Note to physician
Antidote: Specific antidotes or neutralizers to isocyanates do not exist.
Treatment: Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

5. Fire-Fighting Measures

Flash point: 89 °C (ASTM D3278)
Autoignition: not applicable
Self-ignition temperature: not self-igniting

Suitable extinguishing media:
water spray, foam, carbon dioxide

Hazards during fire-fighting:
nitrous gases, fumes/smoke, isocyanate, vapour
Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
Sealed containers should be protected against heat as this results in pressure build-up.

6. Accidental release measures

Personal precautions:
Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:
Do not discharge into drains/surface waters/groundwater.

Cleanup:
Ensure adequate ventilation. Avoid sources of ignition.
For small amounts: Sweep/shovel up. Dispose of absorbed material in accordance with regulations.
For large amounts: Contain spillage. Pick up with suitable absorbent material. Sweep/shovel up. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Handling

General advice:
Avoid contact with the skin, eyes and clothing. Avoid excessive temperatures. Avoid humidity.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. If exposed to fire, keep containers cool by spraying with water.

Storage

General advice:
Keep container tightly closed and in a well-ventilated place.

Storage stability:
Storage temperature: 18 - 40 °C
Protect against moisture.

8. Exposure Controls and Personal Protection

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA</th>
<th>PEL</th>
<th>ACGIH</th>
<th>TWA value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stoddard solvent</td>
<td></td>
<td>500 ppm</td>
<td></td>
<td>2,900 mg/m3</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td></td>
<td></td>
<td></td>
<td>10 mg/m3</td>
</tr>
<tr>
<td>calcium oxide</td>
<td></td>
<td>5 mg/m3</td>
<td></td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>
talc

OSHA  
TWA value  20 millions of particles per cubic foot of air ;  
TWA value  2.4 millions of particles per cubic foot of air Respirable ;  
The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.  
TWA value  0.1 mg/m³ Respirable ;  
The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.  
TWA value  0.3 mg/m³ Total dust ;  
The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.

ACGIH  
TWA value  2 mg/m³ Respirable fraction ;  
The value is for particulate matter containing no asbestos and <1% crystalline silica.

toluene-2,6-diisocyanate

ACGIH  
TWA value  0.005 ppm ; STEL value  0.02 ppm ;  

OSHA  
CLV  0.02 ppm  0.14 mg/m³ ;  

ACGIH  
TWA value  0.005 ppm ; STEL value  0.02 ppm ;  

Limestone

OSHA  
PEL  5 mg/m³ Respirable fraction ; PEL  15 mg/m³ Total dust ;  

Advice on system design:
Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:
When atmospheric levels may exceed the occupational exposure limit (PEL or TLV) NIOSH-certified air-purifying respirators equipped with an organic vapor sorbent and particulate filter can be used as long as appropriate precautions and change out schedules are in place.

Hand protection:
Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:
Safety glasses with side-shields. Wear face shield if splashing hazard exists.

Body protection:
Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:
Wear protective clothing as necessary to prevent contact. Eye wash fountains and safety showers must be easily accessible. Observe the appropriate PEL value. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

9. Physical and Chemical Properties

Form: paste  
Odour: slight odour  
Odour threshold: No data available.  
Colour: pigmented  
pH value: not applicable  
Boiling point: not applicable  
Density: 1.20 g/cm³ (20 °C)  
Solubility in water: (15 °C) insoluble  
Miscibility with water: not (e.g. <10%)
10. Stability and Reactivity

**Conditions to avoid:**
Avoid moisture. Avoid prolonged exposure to extreme heat. Avoid sources of ignition.

**Substances to avoid:**
water, alcohols, strong bases, oxidizing agents, Substances/products that react with isocyanates.

**Hazardous reactions:**
The product is chemically stable.

**Decomposition products:**
Hazardous decomposition products: TOLYLIDENEDIISOCYANATE, carbon monoxide, hydrogen cyanide, aromatic isocyanates, gases/vapours, carbon oxides, nitrogen oxides

**Oxidizing properties:**
Not an oxidizer.

11. Toxicological information

**Acute toxicity**
*Information on: Stoddard solvent*
Assessment of acute toxicity:
Aspiration may result in chemical pneumonitis, which may be fatal.

*Information on: toluene-2,6-diisocyanate*
Assessment of acute toxicity:
Of very high toxicity after short-term inhalation. In animal studies the substance is virtually nontoxic after a single ingestion. In animal studies the substance is virtually nontoxic after a single skin contact.

*EU-classification*

*Information on: toluene-2,4-diisocyanate*
Assessment of acute toxicity:
Of very high toxicity after short-term inhalation. Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

**Irritation / corrosion**
*Information on: calcium oxide*
Assessment of irritating effects:
Corrosive! Damages skin and eyes.

*Information on: toluene-2,6-diisocyanate*
Assessment of irritating effects:
Irritating to eyes and skin.

*Information on: toluene-2,4-diisocyanate*
Assessment of irritating effects:
Irritating to eyes and skin.

**Sensitization**
*Information on: toluene-2,6-diisocyanate*
Assessment of sensitization:
The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.
Information on: toluene-2,4-diisocyanate
Assessment of sensitization:
The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Repeated dose toxicity

Information on: talc

Information on: bis(2-propylheptyl) phthalate
Assessment of repeated dose toxicity:
Repeated exposure to high doses of the substance causes reversible liver changes in rodents. According to present knowledge, these effects do not occur in man.

Information on: Stoddard solvent
Assessment of repeated dose toxicity:
Overexposure may cause liver and kidney toxicity. Repeated exposures may result in pulmonary congestion.

Information on: toluene-2,4-diisocyanate
Assessment of repeated dose toxicity:
The substance may cause damage to the lung even after repeated inhalation of low doses, as shown in animal studies.

Genetic toxicity

Information on: toluene-2,6-diisocyanate
The substance was mutagenic in various test systems with bacteria and cell cultures; however, these results could not be confirmed in tests with mammals. Literature data.

Information on: toluene-2,4-diisocyanate
The substance was mutagenic in various test systems with bacteria and cell cultures; however, these results could not be confirmed in tests with mammals. Literature data.

Carcinogenicity

Information on: bis(2-propylheptyl) phthalate
In long-term studies in rodents exposed to high doses, a tumorigenic effect was found; however, these results are thought to be due to a rodent-specific liver effect that is not relevant to humans. The product has not been tested. The statement has been derived from products of a similar structure or composition.

Information on: Titanium dioxide
IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term studies in rats in which the substance was given by inhalation, a carcinogenic effect was observed. Tumors were only observed in rats after chronic inhalative exposure to high concentrations which caused sustained lung inflammation. In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. Dermal exposure is not expected to be carcinogenic.

Information on: toluene-2,6-diisocyanate
IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans).

Information on: toluene-2,4-diisocyanate
IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). NTP listed carcinogen

Other Information:

Information on: Stoddard solvent
In tests with mammals a central nervous system disorder was observed.
12. Ecological Information

Aquatic toxicity

*Information on: toluene-2,4-diisocyanate*

*Assessment of aquatic toxicity:*
Acutely harmful for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product may hydrolyse. The test result maybe partially due to degradation products.

*Other adverse effects:*

Do not release untreated into natural waters. Do not allow to enter soil, waterways or waste water channels. The product has not been tested. The statement has been derived from the properties of the individual components.

13. Disposal considerations

*Waste disposal of substance:*
Do not discharge into drains/surface waters/groundwater. Dispose of in accordance with local authority regulations.

*Container disposal:*
Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.
Do not reuse empty containers.

14. Transport Information

Reference Bill of Lading

15. Regulatory Information

*Federal Regulations*

*Registration status:*
Chemical DSL, CA released; restriction on quantity / not listed

CEPA, Significant New Activity Restriction (SNAc)
Not for use in products designed to be used by children under the age of 7.

*WHMIS classification:*
D2A: Materials Causing Other Toxic Effects - Very toxic material

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.

16. Other Information
We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

MSDS Prepared by:
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BASF HOTLINE (800) 454 – COPE (2673)
MSDS Prepared on: 2011/05/23

END OF DATA SHEET