1. Product and Company Identification

Use: Product for construction chemicals

Company
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

2. Hazards Identification

Emergency overview

WARNING:
COMBUSTIBLE LIQUID.
HARMFUL IF INHALED.
SENSITIZER.
CONTAINS MATERIAL WHICH MAY CAUSE CANCER.
May cause sensitization by inhalation.
May cause sensitization by skin contact.
Inhalation may cause central nervous system effects.
Irritating to eyes, respiratory system and skin.
Avoid contact with the skin, eyes and clothing.
Avoid all sources of ignition: heat, sparks, open flame.

State of matter: liquid
Colour: dark grey
Odour: of chlorinated solvents

Potential health effects

Primary routes of exposure:
Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:
Of moderate toxicity after short-term inhalation. Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

Irritation / corrosion:
Eye contact causes irritation. Skin contact causes irritation.
Safety Data Sheet
MasterSeal TC 295 cha gry PART C also CONIPUR 295 UV
CHA GRY TC PTA

Revision date : 2010/06/16
Page: 2/8
Version: 1.1

Sensitization:
Sensitization after skin contact possible. The substance may cause sensitization of the respiratory tract. Studies in animals suggest that dermal exposure may lead to pulmonary sensitization. However, the relevance of this result for humans is unclear.

Medical conditions aggravated by overexposure:
The isocyanate component is a respiratory sensitizer. It may cause allergic reaction leading to asthma-like spasms of the bronchial tubes and difficulty in breathing. Persons with history of respiratory disease or hypersensitivity should not be exposed to this product. Medical supervision of all employees who handle or come into contact with isocyanates is recommended. Preemployment and periodic medical examinations with respiratory function tests (FEV, FVC as a minimum) are suggested. Persons with asthmatic conditions, chronic bronchitis, other chronic respiratory diseases, recurrent eczema or pulmonary sensitization should be excluded from working with isocyanates. Once a person is diagnosed as having pulmonary sensitization (allergic asthma) to isocyanates, further exposure is not recommended. Contact may aggravate pulmonary disorders.

Signs and symptoms of overexposure:
Symptoms can appear later.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Content (W/W)</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>5124-30-1</td>
<td>&gt;= 10.0 - &lt;= 30.0 %</td>
<td>4,4'-methylenebicyclohexyl diisocyanate</td>
</tr>
<tr>
<td>13983-17-0</td>
<td>&gt;= 5.0 - &lt;= 10.0 %</td>
<td>Wollastonite (Ca(SiO3))</td>
</tr>
<tr>
<td>98-56-6</td>
<td>&gt;= 5.0 - &lt;= 10.0 %</td>
<td>Benzene, 1-chloro-4-(trifluoromethyl)-</td>
</tr>
<tr>
<td>108-65-6</td>
<td>&gt;= 1.0 - &lt;= 5.0 %</td>
<td>1-methoxy-2-propylacetate</td>
</tr>
<tr>
<td>13463-67-7</td>
<td>&gt;= 1.0 - &lt;= 5.0 %</td>
<td>Titanium dioxide</td>
</tr>
<tr>
<td>1344-28-1</td>
<td>&gt;= 1.0 - &lt;= 5.0 %</td>
<td>Aluminum oxide</td>
</tr>
<tr>
<td>1305-78-8</td>
<td>&gt;= 1.0 - &lt;= 5.0 %</td>
<td>Calcium oxide</td>
</tr>
<tr>
<td>1333-86-4</td>
<td>&gt;= 0.1 - &lt;= 1.0 %</td>
<td>Proprietary polymer 23EB</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. If irritation develops, seek medical attention.

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

<table>
<thead>
<tr>
<th>Flash point: 153 °F (ASTM D56)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-ignition temperature: not self-igniting</td>
</tr>
</tbody>
</table>

## Suitable extinguishing media

- water spray
- dry powder
- carbon dioxide
- foam

## 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 aerosol formation. Avoid all sources of ignition: heat, sparks, open flame. 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:**
Formation of CO2 and build up of pressure possible. Keep container tightly closed and in a well-ventilated place. Outage of containers should be filled with dry inert gas at atmospheric pressure to avoid reaction with moisture.

**Storage stability:**
Storage temperature: 15 - 26 °C
Protect against moisture.

### 8. Exposure Controls and Personal Protection

**Components with workplace control parameters**

- 4,4'-methylene diisoncyanate
  - ACGIH TWA value: 0.005 ppm

---
OSHA PEL  15 mg/m³ Total dust  ;  
ACGIH TWA value  10 mg/m³  ;
calcium oxide  
OSHA PEL  5 mg/m³  ;  
ACGIH TWA value  2 mg/m³  ;
carbon black  
OSHA PEL  3.5 mg/m³  ;  
ACGIH TWA value  3.5 mg/m³  ;
Aluminum oxide  
OSHA PEL  5 mg/m³  Respirable fraction  ;  PEL  15 mg/m³  
Total dust  ;

Advice on system design:
Provide local exhaust ventilation to maintain recommended P.E.L.

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: liquid
Odour: of chlorinated solvents
Colour: dark grey
pH value: not applicable
Boiling point: not applicable
Vapour pressure: 5.3 mmHg  (20 °C)
Density: 1.163 g/cm³  (24 °C)
9.69 lb/USg  (75 °F)
Partitioning coefficient n-octanol/water (log Pow): not applicable
Solubility in water: Reacts with water.

10. Stability and Reactivity

Conditions to avoid:
Avoid moisture.

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

Hazardous reactions:
The product is chemically stable.

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

Oxidizing properties:
Based on its structural properties the product is not classified as oxidizing.

11. Toxicological information

Acute toxicity

Information on: 4,4’-methylenebis(cyclohexyl isocyanate)
Assessment of acute toxicity:
Of high toxicity after short-term inhalation. Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Inhalation of HDI vapors may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. High airborne concentrations may result additionally in eye irritation, headache, chemical bronchitis, asthma-like symptoms or pulmonary edema. Isocyanates have also been reported to cause hyper-sensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed. Symptoms include nausea, vomiting and abdominal pain.

Irritation / corrosion

Information on: 4,4’-methylenebis(cyclohexyl isocyanate)
Assessment of irritating effects:
Irritating to eyes and skin.

Information on: Benzene, 1-chloro-4-(trifluoromethyl)-
Assessment of irritating effects:
May cause slight irritation to the skin. Not irritating to the eyes.

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

Information on: Proprietary polymer 23EB
Assessment of irritating effects:
Not irritating to the skin. May cause severe damage to the eyes. The product has not been tested. The statement has been derived from products of a similar structure and composition.

Sensitization

Information on: 4,4’-methylenebis(cyclohexyl isocyanate)
Assessment of sensitization:
The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Repeated dose toxicity

Information on: 4,4’-methylenebis(cyclohexyl isocyanate)
Assessment of repeated dose toxicity:
Acute or chronic overexposures to isocyanates may cause sensitization in some individuals, resulting in allergic symptoms of the lower respiratory tract (asthma-like), including wheezing, shortness of breath and difficulty
breathing. Subsequent reactions may occur at or substantially below the PEL and TLV. Asthma caused by isocyanates, including HDI, may persist in some individuals after removal from exposure and may be irreversible.

Information on: Benzene, 1-chloro-4-(trifluoromethyl)-
Assessment of repeated dose toxicity:
Repeated exposure to the substance by oral administration leads to effects similar to those found after single exposure. Repeated exposure to the substance by inhalative administration leads to effects similar to those found after single exposure.
May affect the liver and kidneys as indicated in animal studies. Overexposure may cause blood abnormalities.

Carcinogenicity

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: carbon black
IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term animal studies in which the substance was given by inhalation in high concentrations, a carcinogenic effect was observed. A clear indication of an increased risk of cancer in humans has so far not been shown.

Other Information:

Information on: 4,4'-methylenedicyclohexyl diisocyanoate
development of pulmonary edema

12. Ecological Information

Aquatic toxicity

Information on: 4,4'-methylenedicyclohexyl diisocyanoate
Assessment of aquatic toxicity:
Acutely toxic for aquatic organisms. Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible. The product has not been tested. The statement has been derived from the properties of the hydrolysis 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:
Incinerate or dispose of in a licensed facility. Observe all local regulations.

Container disposal:
Do not reuse empty containers.
14. Transport Information

Land transport  
USDOT  
Classified as combustible liquid in containers greater than 119 gallons.

Sea transport  
IMDG  
Not classified as a dangerous good under transport regulations

Air transport  
IATA/ICAO  
Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:  
Chemical TSCA, US released / listed

OSHA hazard category:  
IARC 1, 2A or 2B carcinogen; Chronic target organ effects reported; ACGIH TLV established; Combustible Liquid

EPCRA 311/312 (Hazard categories):  
Acute; Chronic; Fire

EPCRA 313:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1344-28-1</td>
<td>Aluminum oxide</td>
</tr>
<tr>
<td>5124-30-1</td>
<td>4,4'-methylene dicyclohexyl diisoncyanate</td>
</tr>
</tbody>
</table>

State regulations

<table>
<thead>
<tr>
<th>State RTK</th>
<th>CAS Number</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA, NJ, PA</td>
<td>5124-30-1</td>
<td>4,4'-methylene dicyclohexyl diisoncyanate</td>
</tr>
<tr>
<td>NJ</td>
<td>98-56-6</td>
<td>Benzene, 1-chloro-4-(trifluoromethyl)-</td>
</tr>
<tr>
<td>MA, NJ, PA</td>
<td>13463-67-7</td>
<td>Titanium dioxide</td>
</tr>
<tr>
<td>MA, NJ, PA</td>
<td>1344-28-1</td>
<td>Aluminum oxide</td>
</tr>
<tr>
<td>MA, NJ, PA</td>
<td>1333-86-4</td>
<td>carbon black</td>
</tr>
</tbody>
</table>

CA Prop. 65:  
THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

16. Other Information

HMIS III rating
NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

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.

END OF DATA SHEET