1. Product and Company Identification

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.
HARMFUL IF INHALED.
SENSITIZATION CAN OCCUR IN SOME INDIVIDUALS, LEADING TO ASTHMA-LIKE SPASMS OF THE BRONCHIAL TUBES AND DIFFICULTY BREATHING. INDIVIDUALS WITH A HISTORY OF RESPIRATORY ILLNESS, ASTHMATIC CONDITIONS, EYE DAMAGE OR TDI SENSITIZATION SHOULD NOT BE EXPOSED TO THIS PRODUCT. TDI IS INCLUDED IN THE NTP ANNUAL REPORT ON CARCINOGENS. RESULTS FROM A TDI HEALTH STUDY INDICATE THAT OVEREXPOSURE TO A RESPIRATORY IRRITANT, RESULTING IN LOWER RESPIRATORY TRACT SYMPTOMS COULD INCREASE THE RISKS OF DEVELOPING ASTHMA-LIKE REACTIONS FROM SUBSEQUENT TDI EXPOSURE.
CONTAINS MATERIAL WHICH MAY CAUSE CANCER.
Irritating to eyes, respiratory system and skin.
Avoid contact with the skin, eyes and clothing.
Avoid sources of ignition.

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

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 very high toxicity after short-term inhalation. Virtually nontoxic after a single skin contact. Virtually nontoxic after a single ingestion.

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:

Carcinogenicity: Contains a suspect carcinogen.

Repeated dose toxicity: Prolonged exposure may cause chronic effects. Overexposure may cause CNS depression including headache, dizziness, nausea and loss of consciousness.

Teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Genotoxicity: The substance was mutagenic in various bacterial test systems; however, a mutagenic effect could not be confirmed in mammalian cell culture.

Signs and symptoms of overexposure:
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Potential environmental effects

Aquatic toxicity:
Acutely harmful for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Degradation / environmental fate:
The product is unstable in water. The elimination data also refer to products of hydrolysis.

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>1317-65-3</td>
<td>10.0 - 30.0 %</td>
<td>Limestone</td>
</tr>
<tr>
<td>13463-67-7</td>
<td>3.0 - 7.0 %</td>
<td>Titanium dioxide</td>
</tr>
<tr>
<td>14807-96-6</td>
<td>3.0 - 7.0 %</td>
<td>talc</td>
</tr>
<tr>
<td>53306-54-0</td>
<td>1.0 - 5.0 %</td>
<td>bis(2-propylheptyl) phthalate</td>
</tr>
<tr>
<td>8052-41-3</td>
<td>1.0 - 5.0 %</td>
<td>Stoddard solvent</td>
</tr>
<tr>
<td>91-08-7</td>
<td>0.1 - 1.0 %</td>
<td>toluene-2,6-diisocyanate</td>
</tr>
<tr>
<td>1333-86-4</td>
<td>0.1 - 1.0 %</td>
<td>carbon black</td>
</tr>
</tbody>
</table>

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. Immediately remove contaminated clothing.

If inhaled:
If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

If on skin:
After contact with skin, wash immediately with plenty of water and soap. Under no circumstances should organic solvent be used. If irritation develops, seek medical attention.

If in eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:
Rinse mouth immediately and then drink plenty of water, seek medical attention. Do not induce vomiting unless told to by a poison control center or doctor.
5. Fire-Fighting Measures

Flash point: 81.5 °C (178.7 °F) (ASTM D3278)
Autoignition: not applicable
Flammability: not highly flammable

Suitable extinguishing media:
- foam, water spray, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:
- water jet

Protective equipment for fire-fighting:
- Wear a self-contained breathing apparatus.

6. Accidental release measures

Environmental precautions:
- Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Cleanup:
- For small amounts: Pick up with inert absorbent material (e.g. sand, earth etc.). Dispose of contaminated material as prescribed.
- For large amounts: Pump off product.

7. Handling and Storage

Handling
- General advice:
  Avoid aerosol formation. Avoid inhalation of mists/vapours. Avoid skin contact. No special measures necessary provided product is used correctly.

Storage
- General advice:
  Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect from direct sunlight.

8. Exposure Controls and Personal Protection

Components with occupational exposure limits

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>carbon black</td>
<td>PEL 3.5 mg/m³</td>
<td>TWA value 3.5 mg/m³</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>PEL 15 mg/m³ Total dust</td>
<td>TWA value 10 mg/m³</td>
</tr>
</tbody>
</table>
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 PEL: 5 mg/m³ Respirable fraction; PEL: 15 mg/m³ Total dust;

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

Personal protective equipment
Respiratory protection:
Wear appropriate certified respirator when exposure limits may be exceeded.

Hand protection:
Wear chemical resistant protective gloves. Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Safety glasses with side-shields.

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:
Do not inhale gases/vapours/aerosols. Avoid contact with the skin, eyes and clothing. Avoid exposure - obtain special instructions before use. Handle in accordance with good building materials hygiene and safety practice. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks).

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form:</td>
<td>liquid</td>
</tr>
<tr>
<td>Odour:</td>
<td>slight odour</td>
</tr>
<tr>
<td>Colour:</td>
<td>pigmented</td>
</tr>
<tr>
<td>pH value:</td>
<td>not applicable</td>
</tr>
<tr>
<td>Boiling point:</td>
<td>not applicable</td>
</tr>
<tr>
<td>Density:</td>
<td>approx. 0.97 g/cm³</td>
</tr>
<tr>
<td>Solubility in water:</td>
<td>(20 °C) insoluble</td>
</tr>
<tr>
<td>Miscibility with water:</td>
<td>(20 °C) not (e.g. &lt;10%)</td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Substances to avoid:
strong acids, strong bases, strong oxidizing agents

Hazardous reactions:
The product is stable if stored and handled as prescribed/indicated.

Decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

Oxidizing properties:
not fire-propagating

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

Irritation / corrosion

Information on: toluene-2,6-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.

Repeated dose toxicity

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.

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.
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: 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 substances/products of a similar structure or composition.

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: 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. No carcinogenic potential can be deduced from other studies with rats and mice.

Other Information:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses. The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

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

12. Ecological Information

Degradability / Persistence
Biological / Abiological Degradation

Evaluation: Poorly biodegradable.

Poorly biodegradable.
The product is unstable in water. The elimination data also refer to products of hydrolysis.

Other adverse effects:

Acutely harmful for aquatic organisms. Do not discharge product into the environment without control. The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

13. Disposal considerations

Waste disposal of substance:
Dispose of in accordance with national, state and local regulations. Recommendations: Use excess product in an alternate beneficial application.

Container disposal:
Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.
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; NTP listed carcinogen; Chronic target organ effects reported; OSHA PEL established; ACGIH TLV established; Combustible Liquid

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

CERCLA RQ
CAS Number
Chemical name
5000 LBS
7664-38-2; 101-68-8 phosphoric acid; Diphenylmethane-4,4-diisocyanate (MDI)
1000 LBS
108-88-3 Toluene
100 LBS
75-35-4; 107-13-1; 108-90-7; 75-28-5; 584-84-9; 91-08-7 1,1-dichloroethylene; acrylonitrile; chlorobenzene; Propane, 2-methyl-; toluene-2,4-diisocyanate; toluene-2,6-diisocyanate

State regulations

State RTK
CAS Number
Chemical name
MA, NJ, PA
13463-67-7 Titanium dioxide
MA, NJ, PA
14807-96-6 talc
NJ, PA
53306-54-0 bis(2-propylheptyl) phthalate
MA, NJ, PA
8052-41-3 Stoddard solvent
MA, NJ, PA
91-08-7 toluene-2,6-diisocyanate
MA, NJ, PA
1333-86-4 carbon black

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**

Health: 2
Flammability: 1
Physical hazard: 1

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.

**MSDS Prepared by:**
BASF NA Product Regulations
msds@basf.com
MSDS Prepared on: 2012/11/30

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

END OF DATA SHEET