1. Product and Company Identification

<table>
<thead>
<tr>
<th>Company</th>
<th>24 Hour Emergency Response Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASF CORPORATION</td>
<td>CHEMTREC: 1-800-424-9300</td>
</tr>
<tr>
<td>100 Park Avenue</td>
<td>BASF HOTLINE: 1-800-832-HELP (4357)</td>
</tr>
<tr>
<td>Florham Park, NJ 07932, USA</td>
<td></td>
</tr>
</tbody>
</table>

2. Hazards Identification

**Emergency overview**

WARNING:
CONTAINS MATERIAL WHICH CAN CAUSE CANCER.
MAY CAUSE EYE IRRITATION.
MAY CAUSE SKIN IRRITATION.
Ingestion may cause irritation to mucous membranes.
Avoid contact with the skin, eyes and clothing.
Wash thoroughly after handling.
Keep container tightly closed.
No exposure to respirable Crystalline (quartz) Silica anticipated with recommended use of product.

State of matter: liquid
Colour: various
Odour: faint 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:**
Ingestion may cause gastrointestinal disturbances. The product has not been tested. The statement has been derived from the properties of the individual components.

**Irritation / corrosion:**
May cause slight irritation to the eyes. May cause slight irritation to the skin. The product has not been tested. The statement has been derived from products of a similar structure or composition.

**Chronic toxicity:**

**Reproductive toxicity:** The chemical structure does not suggest such an effect. The product has not been tested. The statement has been derived from the properties of the individual components.
Teratogenicity: The chemical structure does not suggest such an effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Potential environmental effects

Aquatic toxicity:
At the present state of knowledge, no negative ecological effects are expected. There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested. The statement has been derived from products of a similar structure or composition.

Bioaccumulation / bioconcentration:
Discharge into the environment must be avoided.

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>14808-60-7</td>
<td>&gt;= 15.0 - &lt;= 40.0 %</td>
<td>crystalline silica</td>
</tr>
<tr>
<td>7727-43-7</td>
<td>&gt;= 10.0 - &lt;= 30.0 %</td>
<td>Barium sulfate</td>
</tr>
<tr>
<td>1317-61-9</td>
<td>&gt;= 1.0 - &lt;= 5.0 %</td>
<td>Iron oxide (Fe3O4)</td>
</tr>
<tr>
<td>770-35-4</td>
<td>&gt;= 1.0 - &lt;= 5.0 %</td>
<td>1-phenoxypropan-2-ol</td>
</tr>
<tr>
<td>13463-67-7</td>
<td>&gt;= 1.0 - &lt;= 5.0 %</td>
<td>Titanium dioxide</td>
</tr>
<tr>
<td>108-65-6</td>
<td>&gt;= 0.5 - &lt;= 1.5 %</td>
<td>1-methoxy-2-propylacetate</td>
</tr>
</tbody>
</table>

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. 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 with water. Seek medical attention if necessary. Do not induce vomiting unless told to by a poison control center or doctor.

5. Fire-Fighting Measures

Flash point: 93.34 °C (ASTM D56, closed cup)
200.01 °F (ASTM D56, closed cup)

Lower explosion limit: 0.7 %(V)
Upper explosion limit: 9.4 %(V)

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

Unsuitable extinguishing media for safety reasons:
water jet
Hazards during fire-fighting:
carbon monoxide, carbon dioxide, harmful vapours, nitrogen oxides, fumes/smoke, carbon black

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

Further information:
The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions:
Use personal protective clothing. Do not breathe vapour/aerosol/spray mists. Handle in accordance with good building materials hygiene and safety practice.

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.

Protection against fire and explosion:
The product does not contribute to the spreading of flames, nor is it self combustible, not explosive.

Storage
General advice:
Keep only in the original container in a cool, well-ventilated place. Protect from direct sunlight. Store protected against freezing.

8. Exposure Controls and Personal Protection

Components with workplace control parameters
OSHA 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.

crystalline silica

OSHA

TWA value 0.025 mg/m³ Respirable fraction;

Barium sulfate

OSHA

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

ACGIH

TWA value 10 mg/m³;

Titanium dioxide

OSHA

PEL 15 mg/m³ Total dust;

ACGIH

TWA value 10 mg/m³;

Personal protective equipment

Respiratory protection:
When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators.

Hand protection:
Wear chemical resistant protective gloves.

Eye protection:
Safety glasses with side-shields.

Body protection:
depending upon conditions of use., Cover as much of the exposed skin as possible to prevent all skin contact., light protective clothing

General safety and hygiene measures:
Avoid contact with the skin, eyes and clothing. In order to prevent contamination while handling, closed working clothes and working gloves should be used. 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

Form: liquid
Odour: faint odour
Colour: various
Boiling point: 140 - 242 °C
Density: approx. 1.63 g/cm³ (20 °C)
                 13.35 - 13.85 lb/USg (73 °F)
Vapour density: Heavier than air.
Solubility in water: not soluble

10. Stability and Reactivity

Conditions to avoid:
11. Toxicological information

Acute toxicity

*Information on: 1-methoxy-2-propylacetate*

**Assessment of acute toxicity:**
Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

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Irritation / corrosion

*Information on: 1-phenoxypropan-2-ol*

**Assessment of irritating effects:**
Not irritating to the skin. May cause severe damage to the eyes.

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Repeated dose toxicity

*Information on: Iron oxide (Fe3O4)*

**Assessment of repeated dose toxicity:**
Chronic exposures have been known to produce pneumoconiosis (chronic inflammatory and fibrotic lung disease).
The substance may cause increase in lung mass and lung tissue changes after repeated inhalation.

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Carcinogenicity

*Information on: crystalline silica*

The International Agency for Research on Cancer (IARC) has classified this substance as a Group 1 (known) human carcinogen.

NTP listed carcinogen

*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.

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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 products of a similar structure and composition.

12. Ecological Information

Degradability / Persistence
Biological / Abiological Degradation
Evaluation: Inherently biodegradable.
The insoluble fraction can be removed by mechanical means in suitable waste water treatment plants.

Other adverse effects:
Ecological data are not available. Do not allow to enter soil, waterways or waste water channels.

13. Disposal considerations

Waste disposal of substance:
Recommendations: Use excess product in an alternate beneficial application. 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.

14. Transport Information

Land transport
USDOT
Not classified as a dangerous good under transport regulations

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
Registration status based on supplier confirmation

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

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

<table>
<thead>
<tr>
<th>CERCLA RQ</th>
<th>CAS Number</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000 LBS</td>
<td>108-88-3; 7727-43-7</td>
<td>Toluene; Barium sulfate</td>
</tr>
<tr>
<td>10 LBS</td>
<td>71-43-2; 106-99-0</td>
<td>Benzene; butadiene</td>
</tr>
</tbody>
</table>

State regulations

<table>
<thead>
<tr>
<th>State RTK</th>
<th>CAS Number</th>
<th>Chemical name</th>
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<tbody>
<tr>
<td>MA, NJ, PA</td>
<td>14808-60-7</td>
<td>crystalline silica</td>
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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: 0

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: 2011/12/01

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END OF DATA SHEET