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:
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.

State of matter: liquid
Colour: amber
Odour: oily

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. May cause slight irritation to the respiratory tract. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Chronic toxicity:

Carcinogenicity: The chemical structure does not suggest a specific alert for such an effect.

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

Genotoxicity: The chemical structure does not suggest a specific alert for 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 substances/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>8001-79-4</td>
<td>&gt;= 15.0 - &lt;= 40.0 %</td>
<td>Castor oil</td>
</tr>
<tr>
<td>8001-79-4</td>
<td>15.0 - 40.0 %</td>
<td>Castor oil</td>
</tr>
<tr>
<td>7631-86-9</td>
<td>1.0 - 5.0 %</td>
<td>Silicon dioxide</td>
</tr>
<tr>
<td>1344-28-1</td>
<td>1.0 - 5.0 %</td>
<td>Aluminum oxide</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: 282.22 °C (ASTM D56)

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

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

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA</th>
<th>PEL 5 mg/m³ Respirable fraction</th>
<th>PEL 15 mg/m³ Total dust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum oxide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silicon dioxide</td>
<td>ACGIH</td>
<td>TWA value 1 mg/m³ Respirable fraction</td>
<td>TWA value 20 millions of particles per cubic foot of air</td>
</tr>
<tr>
<td></td>
<td>OSHA</td>
<td>TWA value 0.8 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

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.

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: oily
Colour: amber
Boiling point: 312.78 °C
Density: 1.026 g/cm³ (20 °C)
Vapour density: Heavier than air.
Partitioning coefficient n-octanol/water (log Pow): No data available.
Other Information: If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Conditions to avoid: Avoid extreme temperatures.

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

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

Decomposition products: irritant gases/vapours, carbon oxides

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

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

11. Toxicological information

Irritation / corrosion

Information on: Castor oil
Assessment of irritating effects: Prolonged exposure to the product can result in irritation of the skin and mucous membranes.

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Sensitization

Information on: Castor oil
Assessment of sensitization:
Human data do not fully exclude a skin sensitizing potential.

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. Dispose of in accordance with local authority regulations. Do not discharge into drains/surface waters/groundwater.

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
US DOT
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

OSHA hazard category: Chronic target organ effects reported;

EPCRA 311/312 (Hazard categories): Acute;

State regulations

State RTK CAS Number Chemical name
MA, NJ, PA 7631-86-9 Silicon dioxide
MA, NJ, PA 1344-28-1 Aluminum oxide

CA Prop. 65: THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

16. Other Information

HMIS III rating

Health: 1 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: 2012/09/18

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