Canada Colors and Chemicals Limited

152 Kennedy Road South
Brampton, Ontario
Canada
L6W 3G4

General Inquiry Number: (905) 459-1232

Material Safety Data Sheet
Attached
1. Product and Company Identification

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)

Chemical family: emulsion, polyacrylamide, cationic
Synonyms: Not available. Use: flocculation agent

2. Hazards Identification

Emergency overview
Eye irritant.
Skin Irritant
Contains petroleum distillates and prolonged contact with mists may cause skin, eye and respiratory tract irritation. Continued overexposure may cause headache and dizziness. Ingestion may cause lung complications.
High concentrations of vapour may cause irritation to eyes and respiratory system and produce narcotic effects. May cause headache and dizziness.
Repeated or prolonged exposure may cause dermatitis, due to degreasing properties of the product.
Caution - Slippery when wet!
Use NIOSH approved respirator as needed to mitigate exposure.
Wear NIOSH-certified chemical goggles.
Eye wash fountains must be easily accessible.

State of matter: liquid
Colour: cream, almost white
Odour: mineral oil-like

Potential health effects
Sensitization:
Based on the ingredients, there is no suspicion of a skin-sensitizing potential.

Chronic toxicity:
Carcinogenicity: None of the components in this product at concentrations greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

Repeated dose toxicity: 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 statement has been derived from the properties of the individual components.
Reproductive toxicity: Based on the ingredients, there is no suspicion of a toxic effect on reproduction.

Genotoxicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

Signs and symptoms of overexposure:
Eye irritation, skin irritation, CNS depression

Potential environmental effects

Aquatic toxicity:
Acutely harmful for aquatic organisms.

Degradation / environmental fate:
Not readily biodegradable (by OECD criteria). The substance can be virtually eliminated from water in suitable effluent treatment plants by biodegradation, stripping and mechanical separation.

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>64742-47-8</td>
<td>15.0 - 40.0 %</td>
<td>Distillates (petroleum), hydrotreated light</td>
</tr>
<tr>
<td>68131-40-8</td>
<td>1.0 - 5.0 %</td>
<td>Alcohols, C11-15-secondary, ethoxylated adipic acid</td>
</tr>
<tr>
<td>124-04-9</td>
<td>0.5 - 1.5 %</td>
<td>adipic acid</td>
</tr>
</tbody>
</table>

4. First-Aid Measures

General advice:
Immediately remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air. Assist in breathing if necessary. Consult a physician.

If on skin:
Wash thoroughly with soap and water. If irritation develops, seek medical attention.

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

If swallowed:
Rinse mouth thoroughly with water, seek medical attention.

Note to physician
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Flash point: > 93 °C
Autoignition: not determined
Lower explosion limit: not highly flammable
Upper explosion limit: not highly flammable

For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.

For liquids not relevant for classification and labelling.
Self-ignition temperature: not self-igniting

Suitable extinguishing media:
dry powder, foam, water spray

Unsuitable extinguishing media for safety reasons:
water jet

Additional information:
If water is used, restrict pedestrian and vehicular traffic in areas where slip hazard may exist.

Hazards during fire-fighting:
harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire. Spilled product is slippery underfoot. Very slippery when wet.

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. Keep people away and stay on the upwind side.

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

Cleanup:
Use common salt (sodium chloride) to aid removal of residues
For large amounts: Pump off product.
For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Handling
General advice:
No special measures necessary provided product is used correctly.

Protection against fire and explosion:
Take precautionary measures against static discharges.

Storage
General advice:
Keep container tightly closed and dry; store in a cool place.

Storage stability:
Avoid extreme heat.

Temperature tolerance
Avoid freezing.
8. Exposure Controls and Personal Protection

**Components with occupational exposure limits**

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>TWA value</th>
<th>Exposure and Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adipic acid</td>
<td>TWA value 5 mg/m³</td>
<td>Non-aerosol (total hydrocarbon vapor); Application restricted to conditions in which there are negligible aerosol exposures. Skin Designation: Non-aerosol (total hydrocarbon vapor); The substance can be absorbed through the skin.</td>
<td></td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>TWA value 200 mg/m³</td>
<td>Non-aerosol (total hydrocarbon vapor); Application restricted to conditions in which there are negligible aerosol exposures. Skin Designation: Non-aerosol (total hydrocarbon vapor); The substance can be absorbed through the skin.</td>
<td></td>
</tr>
<tr>
<td>Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</td>
<td>TWA value 200 mg/m³</td>
<td>Non-aerosol (total hydrocarbon vapor); Application restricted to conditions in which there are negligible aerosol exposures. Skin Designation: Non-aerosol (total hydrocarbon vapor); The substance can be absorbed through the skin.</td>
<td></td>
</tr>
</tbody>
</table>

**Personal protective equipment**

**Respiratory protection:**
Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

**Hand protection:**
Chemical resistant protective gloves

**Eye protection:**
Tightly fitting safety goggles (chemical goggles).

**Body protection:**
Impermeable protective clothing

**General safety and hygiene measures:**
Handle in accordance with good industrial hygiene and safety practice. No eating, drinking, smoking or tobacco use at the place of work.

9. Physical and Chemical Properties

- **Form:** emulsion
- **Odour:** mineral oil-like
- **Odour threshold:** No data available.
- **Colour:** cream, almost white
- **pH value:** approx. 4
- **Vapour pressure:** approx. 1.0 g/cm³
- **Density:** approx. 1.000 - 1.500 mPa.s
- **Partitioning coefficient n-octanol/water (log Pow):** Study scientifically not justified.
- **Viscosity, dynamic:** 1,000 - 1,500 mPa.s
- **% volatiles:** 23.9 %
- **Solubility in water:** dispersible
- **Miscibility with water:** of low solubility
10. Stability and Reactivity

Conditions to avoid:
Avoid extreme temperatures. Avoid freezing. Avoid all sources of ignition: heat, sparks, open flame.

Substances to avoid:
reactive chemicals

Hazardous reactions:
No hazardous reactions when stored and handled according to instructions.

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

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

Corrosion to metals:
No corrosive effect on metal.

Oxidizing properties:
not fire-propagating

11. Toxicological information

Acute toxicity

Oral:
Type of value: LD50
Species: rat
Value: > 2,000 mg/kg
The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion

Skin:
Species: rabbit
Result: Irritant.
Method: OECD Guideline 404

Eye:
Species: rabbit
Result: Irritant.

Information on: adipic acid
Species: rabbit
Result: Risk of serious damage to eyes.
Method: OECD Guideline 405

Aspiration Hazard:
No aspiration hazard expected.
Other Information:

The product has not been tested. The statements on toxicology have been derived from products of a similar structure and composition.

12. Ecological Information

Aquatic toxicity

Information on: cationic polyacrylamide
Assessment of aquatic toxicity:
The hydrolysis products are not acutely harmful to aquatic organisms. Acute effects on aquatic organisms are due to the cationic charge of the polymer, which is quickly neutralised in natural water courses by irreversible adsorption onto particles, hydrolysis and dissolved organic carbon. Fish toxicity and aquatic toxicity are drastically reduced by rapid irreversible adsorption onto suspended and/or dissolved organic matter.

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Fish

Acute:
Oncorhynchus mykiss/LC50 (96 h): 10 - 100 mg/l
(under static conditions in the presence of 10 mg/L humic acid) The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic invertebrates

Acute:
daphnia/EC50 (48 h): 10 - 100 mg/l
(under static conditions in the presence of 10 mg/L humic acid)

Degradability / Persistence

Hydrolysis

Information on: cationic polyacrylamide
In contact with water the substance will hydrolyse rapidly.

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Environmental mobility:

Information on: cationic polyacrylamide
Assessment transport between environmental compartments:
Adsorption to solid soil phase is expected.

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13. Disposal considerations

Waste disposal of substance:
Must be disposed of or incinerated in accordance with local regulations.

Container disposal:
Uncontaminated packaging can be re-used. Packs that cannot be cleaned should be disposed of in the same manner as the contents.

14. Transport Information
Land transport
TDG

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 DSL, CA released / listed

WHMIS classification: D2B: Materials Causing Other Toxic Effects - Toxic material

This product is WHMIS controlled.
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

Recommended use: flocculation agent

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.

SDS Prepared by:
BASF NA Product Regulations

BASF HOTLINE (800) 454 – COPE (2673)
SDS Prepared on: 2014/03/20

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