1. Product and Company Identification

Company: BASF Canada Inc.
Address: 100 Milverton Drive
City: Mississauga, ON, L5R 4H1, CANADA

24 Hour Emergency Response Information:
CANUTEC (reverse charges): (613) 996-6666
BASF HOTLINE: (800) 454-COPE (2673)

2. Hazards Identification

Emergency overview

CAUTION:
This product has no known adverse effect on human health.
Refer to MSDS Section 7 for Dust Explosion information.

State of matter: solid
Colour: white to slightly yellow
Odour: characteristic

Potential health effects

Primary routes of entry:
Ingestion.
Skin
Inhalation.
Eyes

Acute toxicity:
Virtually nontoxic after a single skin contact. Of low toxicity after single ingestion.

Irritation / corrosion:
Not irritating to eyes and skin.

Assessment other acute effects:
Apart from effects causing lethality, no specific target organ toxicity was observed in experimental studies.

Sensitization:
Skin sensitizing effects were not observed in animal studies.

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: Repeated oral uptake of the substance did not cause substance-related effects.
**Genotoxicity:** The substance was not mutagenic in bacteria. The substance was not mutagenic 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. Further important symptoms and effects are so far not known.

**Potential environmental effects**

**Aquatic toxicity:**
The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

**Degradation / environmental fate:**
Not readily biodegradable (by OECD criteria). Moderately/partially biodegradable.

---

### 3. Composition / Information on Ingredients

Not WHMIS controlled.

---

### 4. First-Aid Measures

**General advice:**
Remove contaminated clothing.

**If inhaled:**
If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

**If on skin:**
Wash thoroughly with soap and water.

**If in eyes:**
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

**If swallowed:**
Rinse mouth and then drink plenty of water.

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

---

### 5. Fire-Fighting Measures

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>Study does not need to be conducted.</td>
</tr>
<tr>
<td>Autoignition</td>
<td>not determined</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>not determined</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>not determined</td>
</tr>
<tr>
<td>Flammability</td>
<td>not highly flammable</td>
</tr>
<tr>
<td>Self-ignition temperature</td>
<td>not self-igniting</td>
</tr>
</tbody>
</table>

**Suitable extinguishing media:**
dry powder, foam

**Unsuitable extinguishing media for safety reasons:**
carbon dioxide
Additional information:
Avoid whirling up the material/product because of the danger of dust explosion.

Hazards during fire-fighting:
harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

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

Further information:
Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

Impact Sensitivity:
Method: BAM drop hammer

6. Accidental release measures

Personal precautions:
Avoid dust formation. Use personal protective clothing.

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

Cleanup:
Avoid raising dust.
For small amounts: Pick up with suitable appliance and dispose of.
For large amounts: Contain with dust binding material and dispose of.

7. Handling and Storage

Handling
General advice:
Breathing must be protected when large quantities are decanted without local exhaust ventilation.

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

Storage
General advice:
Keep container tightly closed and dry; store in a cool place.
Avoid all sources of ignition: heat, sparks, open flame.

8. Exposure Controls and Personal Protection

Personal protective equipment

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

Hand protection:
Chemical resistant protective gloves

Eye protection:
Safety glasses with side-shields.
9. Physical and Chemical Properties

Form: powder
Odour: characteristic
Odour threshold: No data available.
Colour: white to slightly yellow
pH value: 6.1 - 6.2 (1% (m), 22 °C) (as aqueous solution) (OECD Guideline 102)
Melting point: 89.2 - 90.5 °C (Directive 84/449/EEC, A.2)
Boiling point: 331 °C (985.6 hPa) (Directive 84/449/EEC, A.4)
Vapour pressure: approx. 0.00007 hPa (25 °C) static (Directive 84/449/EEC, A.4)
Density: 1.284 g/cm³ (20 °C) (OECD Guideline 109)
Relative density: No data available.
Bulk density: 415 kg/m³
Vapour density: The product is a non-volatile solid.
Partitioning coefficient n-octanol/water (log Pow): 0.841 (23.2 °C) (OECD Guideline 107)
Viscosity, dynamic: Study does not need to be conducted.
Particle size:
\[
\begin{align*}
D_{10} & = 9.6 \, \mu m \\
D_{50} & = 24.8 \, \mu m \\
D_{90} & = 50.8 \, \mu m \\
\end{align*}
\]
% volatiles: not determined
Solubility in water: 7.6 g/l (25 °C) (OECD Guideline 109)
Solubility in other solvents: No data available.

10. Stability and Reactivity

Conditions to avoid:
Avoid electro-static discharge. Avoid light. Avoid sources of ignition.

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

Hazardous reactions:
Dust explosion hazard.

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

Thermal decomposition:
> 350 °C

Oxidizing properties:
not fire-propagating (Directive 84/449/EEC, A.17)

11. Toxicological information

Acute toxicity

Oral:
Type of value: LD50
Species: rat
Value: 2,000 - 5,000 mg/kg (OECD Guideline 401)

Information on: 1-Propanone, 2-hydroxy-1-[4-(2-hydroxyethoxy)phenyl]-2-methyl-
Type of value: LD50
Species: rat (female)
Value: 2,098 mg/kg (OECD Guideline 401)

----------------------------------

Inhalation:
Type of value: LC50
not determined

Dermal:
Type of value: LD50
Species: rat
Value: > 5,000 mg/kg (OECD Guideline 402)

Information on: 1-Propanone, 2-hydroxy-1-[4-(2-hydroxyethoxy)phenyl]-2-methyl-
Type of value: LD50
Species: rat
Value: > 5,000 mg/kg (OECD Guideline 402)

----------------------------------

Irritation / corrosion

Skin:
Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Information on: 1-Propanone, 2-hydroxy-1-[4-(2-hydroxyethoxy)phenyl]-2-methyl-
Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

----------------------------------

Eye:
Species: rabbit
Result: non-irritant
Method: OECD Guideline 405

Information on: 1-Propanone, 2-hydroxy-1-[4-(2-hydroxyethoxy)phenyl]-2-methyl-
Species: rabbit
Result: non-irritant
Method: OECD Guideline 405

----------------------------------

Sensitization:
Guinea pig maximization test
Species: guinea pig
Result: Non-sensitizing
Method: OECD Guideline 406

Information on: 1-Propanone, 2-hydroxy-1-[4-(2-hydroxyethoxy)phenyl]-2-methyl-
Guinea pig maximization test
Species: guinea pig
Result: Non-sensitizing
Method: OECD Guideline 406
Repeated dose toxicity

Information on: 1-Propanone, 2-hydroxy-1-[4-(2-hydroxyethoxy)phenyl]-2-methyl-
Assessment of repeated dose toxicity:
Repeated oral uptake of the substance did not cause substance-related effects.

Genetic toxicity

Information on: 1-Propanone, 2-hydroxy-1-[4-(2-hydroxyethoxy)phenyl]-2-methyl-
The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture.

Carcinogenicity

Information on: 1-Propanone, 2-hydroxy-1-[4-(2-hydroxyethoxy)phenyl]-2-methyl-
No data available concerning carcinogenic effects.

Reproductive toxicity

Information on: 1-Propanone, 2-hydroxy-1-[4-(2-hydroxyethoxy)phenyl]-2-methyl-
No data available concerning reproduction toxicity.

Development:

Information on: 1-Propanone, 2-hydroxy-1-[4-(2-hydroxyethoxy)phenyl]-2-methyl-
No data available concerning teratogenic effects.

Aspiration Hazard:

not applicable

12. Ecological Information

Fish

Acute:
OECD 203; ISO 7346; 84/449/EEC, C.1 static
Brachydanio rerio/LC50 (96 h): 147 mg/l
The details of the toxic effect relate to the nominal concentration.

Chronic:
No data available.

Aquatic invertebrates

Acute:
OECD Guideline 202, part 1 static
Daphnia magna/EC50 (48 h): 615 mg/l
The details of the toxic effect relate to the nominal concentration.

Chronic:
No data available.

Aquatic plants

Toxicity to aquatic plants:
OECD Guideline 201 static
green algae/EC50 (72 h): > 100 mg/l

Microorganisms

Toxicity to microorganisms:
aerobic microorganisms/EC20 (3 h): > 105 mg/l

Degradability / Persistence
Biological / Abiological Degradation
Test method: OECD 301D; EEC 92/69, C.4-E (aerobic), municipal sewage treatment plant effl.
Method of analysis: BOD of COD
Degree of elimination: 24.3 % (28 d)

Environmental mobility:
Transport between environmental compartments:
adsorption/water - soil
log KOC: 1.05

13. Disposal considerations

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

Container disposal:
The packaging must not be re-used. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

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

VOC content:
not determined

Federal Regulations
Registration status:
Not 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

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
BASF HOTLINE (800) 454 – COPE (2673)
MSDS Prepared on: 2011/11/02

Irgacure® 2959 is a registered trademark of BASF Canada or BASF SE
END OF DATA SHEET