1. Substance/preparation and company identification

Company
BASF CANADA
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)

Molecular formula: K(2)S(2)O(5)
Synonyms: POTASSIUM METABISULFITE FOOD GRADE

2. Hazardous ingredients

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Content (W/W)</th>
<th>Hazardous ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>7681-57-4</td>
<td>&gt;= 1.0 - &lt;= 5.0 %</td>
<td>Sodium metabisulfite</td>
</tr>
<tr>
<td>16731-55-8</td>
<td>&gt;= 60.0 - &lt;= 100.0 %</td>
<td>dipotassium disulphite</td>
</tr>
</tbody>
</table>

3. Hazard identification

Emergency overview
IRRITANT. Irritating to eyes and respiratory system.

Potential health effects

Acute toxicity:
Of low toxicity after single ingestion. Virtually nontoxic by inhalation.

Sensitization:
Skin sensitizing effects were not observed in animal studies. The product has not been tested. The statement has been derived from products of a similar structure and composition. A sensitizing effect on particularly sensitive individuals cannot be excluded.

Repeated dose toxicity:
No known chronic effects.

Potential environmental effects

Aquatic toxicity:
Acutely harmful for aquatic organisms. The product may hydrolyse. The test result maybe partially due to degradation products.
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. After inhalation of decomposition products: Immediately inhale corticosteroid dose aerosol.

If on skin:
Wash thoroughly with soap and water.

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 and then drink plenty of water.

Note to physician
Hazards: Risk of sulfur dioxide formation by reaction with gastric acid after swallowing.

5. Fire-fighting measures

Suitable extinguishing media:
foam

Hazards during fire-fighting:
Sulphur dioxide,
The substances/groups of substances mentioned can be released if the product is involved in a fire.

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

Further information:
Contaminated extinguishing water must be disposed of in accordance with official regulations. In case of fire and/or explosion do not breathe fumes.

6. Accidental release measures

Personal precautions:
Use personal protective clothing. Ensure adequate ventilation. Avoid dust formation. Avoid contact with eyes.

Environmental precautions:
Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Cleanup:
Sweep/shovel up. Correctly dispose of recovered product immediately.
7. Handling and storage

Handling

General advice:
Use only in well-ventilated areas. Avoid dust formation.

Protection against fire and explosion:
The substance/product is non-combustible. No special precautions necessary.

Storage

General advice:
Keep in a cool place. Keep container dry. Keep container in a well-ventilated place.

Storage incompatibility:
General: Segregate from acids and acid forming substances. Segregate from oxidants.
Specific: sodium nitrate, sodium nitrite, sodium sulfide,

8. Exposure controls and personal protection

Personal protective equipment

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

Hand protection:
Chemical resistant protective gloves, Suitable materials

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

General safety and hygiene measures:
Avoid inhalation of dust. Hands and/or face should be washed before breaks and at the end of the shift.

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>powder</td>
</tr>
<tr>
<td>Odour</td>
<td>faint odour, of sulfur dioxide</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Colour</td>
<td>white</td>
</tr>
<tr>
<td>pH value</td>
<td>3.8 - 4.6 (5 % (m))</td>
</tr>
<tr>
<td>Decomposition point</td>
<td>150 °C</td>
</tr>
<tr>
<td>Density</td>
<td>2.34 g/cm³</td>
</tr>
<tr>
<td>Relative density</td>
<td>2.3 (other)</td>
</tr>
<tr>
<td>Bulk density</td>
<td>1,100 - 1,300 kg/m³</td>
</tr>
<tr>
<td>Partitioning coefficient</td>
<td>not applicable</td>
</tr>
<tr>
<td>n-octanol/water (log Pow)</td>
<td>not applicable</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>not applicable</td>
</tr>
<tr>
<td>Particle size</td>
<td>65 µm (measured)</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>approx. 450 g/l (20 °C) hydrolyzes</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

Substances to avoid:
acids, oxidizing agents, nitrites, nitrates, sulfides
Hazardous reactions:
Reacts with nitrites. Reacts with nitrates. Reacts with oxidizing agents.

Decomposition products:
Hazardous decomposition products: Sulphur dioxide

Thermal decomposition:
> 150 °C
To avoid thermal decomposition, do not overheat.

11. Toxicological information

Acute toxicity

Oral:
LD50/rat: approx. 2,300 mg/kg (BASF-Test)

Inhalation:
LC50/rat: > 5.5 mg/l / 4 h
Tested as dust aerosol.

Skin irritation:
rabbit: non-irritant (BASF-Test)

Eye irritation:
rabbit: Risk of serious damage to eyes. (OECD Guideline 405)

Sensitization:
guinea pig: Non-sensitizing.

Chronic toxicity

Genetic toxicity:
No mutagenic effect was found in various tests with bacteria and mammalian cell culture.
The substance was not mutagenic in a test with mammals.
The product has not been tested. The statement has been derived from products of a similar structure and composition.

Carcinogenicity:
In long-term studies in rats and mice in which the substance was given by drinking-water, a carcinogenic effect was not observed.

Reproductive toxicity:
The results of animal studies gave no indication of a fertility impairing effect.
The product has not been tested. The statement has been derived from products of a similar structure and composition.

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

12. Ecological information

Environmental fate and transport
Biodegradation:
Evaluation: Inorganic product which cannot be eliminated from water by biological purification processes.

Bioaccumulation:
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Chemical oxygen demand (COD):
(calculated) approx. 140 mg/g

Environmental toxicity

Acute and prolonged toxicity to fish:
OECD 203; ISO 7346; 84/449/EEC, C.1 static
zebra fish/LC50 (96 h): = 460 - 1000 mg/l
Nominal concentration.

Acute toxicity to aquatic invertebrates:
Directive 79/831/EEC static
Daphnia magna/EC50 (48 h): 104 mg/l
Nominal concentration. The product has not been tested. The statement has been derived from products of a similar structure and composition.

Toxicity to aquatic plants:
other static
green algae/EC50 (72 h): 56 mg/l
Nominal concentration. The product has not been tested. The statement has been derived from products of a similar structure and composition.

Toxicity to microorganisms:
DIN 38412 Part 8 aquatic
Bacteria/EC10 (17 h): 32 mg/l
Nominal concentration.

Other ecotoxicological advice:
Higher concentrations of the substance may cause a strong chemical oxygen consumption in biological sewage-treatment plants and/or waterways. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

13. Disposal considerations

Waste disposal of substance:
Contact manufacturer regarding recycling.
Contact waste centre regarding recycling.
Must be dumped or incinerated in accordance with local 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
TDG
Safety data sheet
Potassium Metabisulfite food grade (E224)

15. Regulatory information

**Federal Regulations**

**Registration status:**
DSL, CA released / listed

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

**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

**Local contact information**
BASF Canada Product Safety
prod_reg@basf.com

END OF DATA SHEET