1 - Product and Company Information

Product Name: POTASSIUM BROMATE PURE
Product Number: 02108
Company: Sigma-Aldrich Ireland Ltd.
Airton Road, Tallaght
Dublin 24
Ireland
Technical Phone #: 353-1404-1900
Fax: 353-1404-1910

2 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Product Name</th>
<th>CAS #</th>
<th>EC no</th>
<th>Annex I Index Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTASSIUM BROMATE</td>
<td>7758-01-2</td>
<td>231-829-8</td>
<td>035-003-00-6</td>
</tr>
</tbody>
</table>

Formula: KBrO3
Molecular Weight: 167.01 AMU
Synonyms: EEC No. E924 * Potassium bromate

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
May cause cancer. Explosive when mixed with combustible material. Also toxic if swallowed.
Carc. Cat. 2

4 - First Aid Measures

AFTER INHALATION
If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

AFTER SKIN CONTACT
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

AFTER EYE CONTACT
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA
Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

SPECIAL RISKS
Specific Hazard(s): Emits toxic fumes under fire conditions. Contact with other material may cause fire. May accelerate combustion.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING
Directions for Safe Handling: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE
Conditions of Storage: Keep tightly closed. Keep away from combustible materials, heat, sparks, and open flame.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS
Use only in a chemical fume hood. Safety shower and eye bath.

GENERAL HYGIENE MEASURES
Wash thoroughly after handling. Remove and wash contaminated clothing promptly.

PERSONAL PROTECTIVE EQUIPMENT

9 - Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Physical State: Solid</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>5 - 8</td>
<td></td>
</tr>
<tr>
<td>BP/BP Range</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>MP/MP Range</td>
<td>350 °C</td>
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</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

RIEDEL - 02108 www.sigma-aldrich.com
10 - Stability and Reactivity

STABILITY
Stable: Stable.
Materials to Avoid: Strong reducing agents, Finely powdered metals.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Hydrogen bromide gas, Oxygen.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: EF8725000

ACUTE TOXICITY

LD50
Oral
Rat
157 mg/kg

LD50
Intraperitoneal
Rat
50 MG/KG

LD50
Oral
Mouse
289 mg/kg

LD50
Intraperitoneal
Mouse
177 MG/KG
LD50
Oral
Hamster
388 mg/kg

SIGNS AND SYMPTOMS OF EXPOSURE
Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer.

ROUTE OF EXPOSURE
Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: Toxic if swallowed.

TARGET ORGAN INFORMATION

CHRONIC EXPOSURE - CARCINOGEN
Result: This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Rat
Route of Application: Oral
Exposure Time: 13W

Rat
Route of Application: Oral
Exposure Time: 2Y

Rat
Route of Application: Oral
Exposure Time: 2Y

Rat
Route of Application: Oral
Exposure Time: 2Y

Rat
Route of Application: Oral
Exposure Time: 39W

Rat
Route of Application: Oral
Exposure Time: 2Y

Rat
Route of Application: Oral
Exposure Time: 2Y

IARC CARCINOGEN LIST
Rating: Group 2B

CHRONIC EXPOSURE - MUTAGEN

Rat
60 MG/KG
Intraperitoneal
Micronucleus test

Rat
80 MG/KG
Intraperitoneal
DNA damage

Rat
251 MG/KG
Intraperitoneal
Cytogenetic analysis

Rat
3 MMOL/KG
Oral
Cytogenetic analysis

Rat
20 UMOL/L
Cell Type: leukocyte
Sister chromatid exchange

Mouse
25 MG/KG
Intraperitoneal
Micronucleus test

Mouse
200 MG/KG
Oral
24H
Micronucleus test

Mouse
7500 UMOL/L
Cell Type: leukocyte
DNA damage
Hamster
125 MG/L
Cell Type: lung
Micronucleus test

Hamster
85 MG/L
Cell Type: lung
Cytogenetic analysis

Pig
7500 UMOL/L
Cell Type: kidney
DNA damage
CMR CAT.: Carc. Cat.2

12 – Ecological Information

No data available.

13 – Disposal Considerations

SUBSTANCE DISPOSAL
Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

14 – Transport Information

RID/ADR
UN#: 1484
Class: 5.1
PG: II
Proper Shipping Name: Potassium bromate

IMDG
UN#: 1484
Class: 5.1
PG: II
Proper Shipping Name: Potassium bromate
Marine Pollutant: No
Severe Marine Pollutant: No

IATA
UN#: 1484
Class: 5.1
PG: II
Proper Shipping Name: Potassium bromate
Inhalation Packing Group I: No

15 – Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES
ANNEX I INDEX NUMBER: 035-003-00-6
NOTA: E
INDICATION OF DANGER: O T
Oxidizing. Toxic.
R-PHRASES: 45 9 25
May cause cancer. Explosive when mixed with combustible material. Also toxic if swallowed.
S-PHRASES: 53 45
Restricted to professional users. Attention - Avoid exposure -
obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SWITZERLAND
SWISS POISON CLASS: 3

16 - Other Information

WARRANTY
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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