SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 *Product identifiers*

Product name: **POTASSIUM BROMATE**

CAS-No.: **7758-01-2**

Product Number: **A70233**

1.2 *Relevant identified uses of the substance or mixture and uses advised against*

Identified uses: Laboratory chemicals, Manufacture of substances

1.3 *Details of the supplier of the safety data sheet*

Company : Philip Harris Ltd., 2 Gregory Street, Hyde, Cheshire, SK14 4HR, UNITED KINGDOM

Telephone: +44 (0)845 1200 506 Fax: +44 (0)161 367 2140

Email: enquiries@philipharris.co.uk

1.4 *Emergency telephone number*

Emergency Phone #: **+44 (0)845 1200 506**

2. HAZARDS IDENTIFICATION

2.1 *Classification of the substance or mixture*

According to Regulation (EC) No1272/2008; Acute toxicity, Oral (Category 3), Carcinogenicity (Category 1B)

According to European Directive 67/548/EEC as amended: Explosive when mixed with combustible material. May cause cancer. Toxic if swallowed.

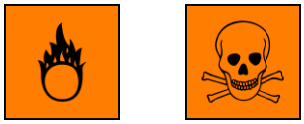
2.2 *Label elements*

Pictogram 

Signal word Danger

Hazard statement(s): H271 May cause fire or explosion; strong oxidiser. H301 Toxic if swallowed. H350 May cause cancer.

Precautionary statement(s): P201 Obtain special instructions before use. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Hazard symbol(s): 

R-phrase(s): R45 May cause cancer. R25 Also toxic if swallowed. R 9 Explosive when mixed with combustible material.

S-phrase(s): S53 Avoid exposure - obtain special instructions before use. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Restricted to professional users.

2.3 ***Other hazards*** – no data available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 ***Substances***

Potassium bromate

Formula:	**$KBrO_3$**
Molecular Weight:	**167.00**
CAS-No.:	**7758-01-2**
EC-No.:	**231-829-8**
Index-No.:	**035-003-00-6**

4. FIRST AID MEASURES

4.1 ***Description of first aid measures***

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 ***Most important symptoms and effects, both acute and delayed:*** no data available

4.3 ***Indication of immediate medical attention and special treatment needed:*** no data available

5. FIRE-FIGHTING MEASURES

5.1 ***Extinguishing media***

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 ***Special hazards arising from the substance or mixture:*** no data available

5.3 ***Precautions for fire-fighters:*** Wear self contained breathing apparatus for fire fighting if necessary.

5.4 ***Further information:*** Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 ***Personal precautions, protective equipment and emergency procedures:*** Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 ***Environmental precautions:*** Prevent further leakage or spillage if safe to do so. Do not let product enter drains

6.3 ***Methods and materials for containment and cleaning up:*** Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

6.4 ***Reference to other sections:*** For disposal see section 13.

7. HANDLING AND STORAGE

7.1 ***Precautions for safe handling:*** Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from combustible material.

7.2 ***Conditions for safe storage, including any incompatibilities:*** Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 ***Specific end uses:*** no data available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ***Control parameters:*** Contains no substances with occupational exposure limit values.

8.2 ***Exposure controls***

Appropriate engineering controls: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection: Face shield and safety glasses.

Skin protection: The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

Body Protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance:	**Form**:	Solid	**Colour**: no data available
b) Odour:		no data available	
c) Odour Threshold:		no data available	
d) pH:		5.0 - 9.0 at 50 g/l at 20 °C	
e) Melting/freezing point:		350 °C	Melting point/range: no data available
f) Initial boiling point and boiling range:		no data available	

g) Flash point:	no data available
h) Evaporation rate:	no data available
i) Flammability (solid, gas):	no data available
j) Upper/lower flammability or explosive limits:	no data available
k) Vapour pressure:	no data available
l) Vapour density:	no data available
m) Relative density:	3.270 g/cm3
n) Water solubility:	ca.16.7 g/l at 20 °C
o) Partition coefficient: n-octanol/water:	no data available
p) Autoignition temperature:	no data available
q) Decomposition temperature:	no data available
r) Viscosity:	no data available
s) Explosive properties:	no data available
t) Oxidizing properties:	no data available

9.2 *Other safety information:* **Thermal decomposition -** 370 °C

10. STABILITY AND REACTIVITY

10.1 *Reactivity:* no data available

10.2 *Chemical stability:* Stable under recommended storage conditions.

10.3 *Possibility of hazardous reactions:* no data available

10.4 *Conditions to avoid:* no data available

10.5 *Incompatible materials:* Strong reducing agents, Powdered metals

10.6 *Hazardous decomposition products:* formed under fire conditions. - Hydrogen bromide gas, Potassium oxides

11. TOXICOLOGICAL INFORMATION

11.1 *Information on toxicological effects*

Acute toxicity: LD50 Oral - rat - 157 mg/kg. Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Olfaction: Other changes. Diarrhoea

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity: 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. Possible human carcinogen. IARC: 2B - Group 2B: Possibly carcinogenic to humans (Potassium bromate)

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion Toxic if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

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.

Additional Information: RTECS: EF8725000

12. ECOLOGICAL INFORMATION

12.1 ***Toxicity:*** no data available

12.2 ***Persistence and degradability:*** no data available

12.3 ***Bioaccumulative potential:*** no data available

12.4 ***Mobility in soil:*** no data available

12.5 ***Results of PBT and vPvB assessment:*** no data available

12.6 ***Other adverse effects:*** no data available

13. DISPOSAL CONSIDERATIONS

13.1 ***Waste treatment methods***

Product: Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 ***UN-Number***

ADR/RID:	1484	IMDG:	1484	IATA:	1484

14.2 ***UN proper shipping name***

ADR/RID:	POTASSIUM BROMATE
IMDG:	POTASSIUM BROMATE
IATA:	POTASSIUM BROMATE

14.3 ***Transport hazard class(es)***

ADR/RID:	5.1	IMDG:	5.1	IATA:	5.1

14.4 ***Packaging group***

ADR/RID:	II	IMDG:	II	IATA:	II

14.5 ***Environmental hazards***

ADR/RID:	no	IMDG Marine pollutant: no	IATA: no

14.6 ***Special precautions for users:*** EMS-No: F-H, S-Q

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 ***Safety, health and environmental regulations/legislation specific for the substance or mixture:*** no data available

15.2 ***Chemical Safety Assessment:*** no data available

16. OTHER INFORMATION

Acute Tox. Acute toxicity

Carc. Carcinogenicity

H271 May cause fire or explosion; strong oxidiser.

H301 Toxic if swallowed.

H350 May cause cancer.

O Oxidising

T Toxic

R 9 Explosive when mixed with combustible material.

R25 Toxic if swallowed.

R45 May cause cancer.