PanReac AppliChem ITW Reagents

Safety Data Sheet
acc. to OSHA HCS

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1 Identification

· **Product identifier**

· **Trade name: potassium bromate**

· **Article number:** 1487
· **CAS Number:**
7758-01-2
· **EC number:**
231-829-8
· **Index number:**
035-003-00-6
· **Application of the substance / the mixture**
Chemical analytics
Laboratory chemicals

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
PANREAC QUIMICA S.L.U.
C/Garraf 2
Polígono Pla de la Bruguera
E-08211 Castellar del Vallès (Barcelona)
Tel. (+34) 937 489 400
Fax. (+34) 937 489 401
e-mail: product.safety@itwreagents.com

· **Information department:** email: product.safety@panreac.com
· **Emergency telephone number:**
Einheitliche Notrufnummer: 112 (EU)
Tel.: (+34) 937 489 499

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2 Hazard(s) identification

· **Classification of the substance or mixture**

Oxidizing Solids 1	H271 May cause fire or explosion; strong oxidizer.
Acute Toxicity - Oral 3	H301 Toxic if swallowed.
Carcinogenicity 2	H351 Suspected of causing cancer.

· **Label elements**
· **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).

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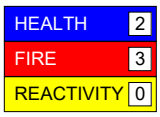
· **Hazard pictograms**

GHS03 GHS06 GHS08

· **Signal word** Danger
· **Hazard statements**
H271 May cause fire or explosion; strong oxidizer.
H301 Toxic if swallowed.
H351 Suspected of causing cancer.
· **Precautionary statements**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat. - No smoking.
P220 Keep/Store away from clothing/combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**

Health = 2
Fire = 3
Reactivity = 0

The substance possesses oxidizing properties.
· **HMIS-ratings (scale 0 - 4)**



Health = 2
Fire = 3
Reactivity = 0

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Substances**
· **CAS No. Description**
7758-01-2 potassium bromate
· **Identification number(s)**
· **EC number:** 231-829-8
· **Index number:** 035-003-00-6

4 First-aid measures

· **Description of first aid measures**
· **General information:**
In case of irregular breathing or respiratory arrest provide artificial respiration.
Involve doctor immediately.

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· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:**
Call a doctor immediately.
Seek medical treatment.
Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:**
make victim drink water (maximum of 2 drinking glasses)
Do not induce vomiting; immediately call for medical help.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
· **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Has a fire-promoting effect due to release of oxygen.
Hydrogen bromide
Non-combustible.
· **Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
· **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Avoid formation of dust.
Avoid substance contact.
Ensure adequate ventilation
· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Pick up mechanically.
Avoid formation of dust.
Dispose contaminated material as waste according to section 13.
Clean up affected area.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
· **Protective Action Criteria for Chemicals**
· **PAC-1:** 0.30 mg/m3
· **PAC-2:** 5.2 mg/m3

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· **PAC-3:** 31 mg/m3

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Open and handle receptacle with care.
Any deposit of dust which cannot be avoided must be regularly removed.
· **Information about protection against explosions and fires:**
Keep respiratory protective device available.
The product is not flammable.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:**
Store under lock and key and with access restricted to technical experts or their assistants only.
Keep container sealed.
· **Recommended storage temperature:** Room Temperature
· **Storage class:** 5.1 A
· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see section 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
7758-01-2 potassium bromate	
WEEL	Long-term value: 0.1 mg/m³

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Vacuum clean contaminated clothing. Do not blow or brush off contamination.
· **Breathing equipment:**
Combination filter B-P3
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Required when dusts are generated.
· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **For the permanent contact gloves made of the following materials are suitable:**
Recommended thickness of the material: ≥ 0.11 mm
Value for the permeation: Level ≥ 480 min

· **As protection from splashes gloves made of the following materials are suitable:**
Recommended thickness of the material: ≥ 0.11 mm
Value for the permeation: Level ≥ 480 min

· **Eye protection:**

Tightly sealed goggles

· **Body protection:** Use protective suit.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Crystalline
Color:	Whitish
· **Odor:**	Odorless
· **Odor threshold:**	Not determined.
· **pH-value:**	5-9
· **Change in condition**	
Melting point/Melting range:	409-413 °C (768.2-775.4 °F)
Boiling point/Boiling range:	>425 °C (>797 °F)
· **Flash point:**	Not applicable.
· **Flammability:**	Not determined. Not applicable.
· **Decomposition temperature:**	Not determined.
· **Ignition temperature:**	Not determined.
· **Danger of explosion:**	Product does not present an explosion hazard. Explosive when mixed with combustible material.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure:**	Not applicable.
· **Density at 20 °C (68 °F):**	3.13 g/cm³ (26.12 lbs/gal)
· **Bulk density:**	1,400 kg/m³

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· **Relative density**	Not determined.
· **Vapor density**	Not applicable.
· **Evaporation rate**	Not applicable.
· **Solubility in / Miscibility with Water at 20 °C (68 °F):**	66 g/l Insoluble.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:** Heating.
· **Possibility of hazardous reactions**
Risk of ignition or formation of inflammable gases or vapors with:
sulfides
sulfuric acid
metals in powder form
ammonium compounds
nonmetals
semimetals
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** Reacts with flammable substances.
· **Hazardous decomposition products:** In the event of fire: See chapter 5

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**
· **LD/LC50 values that are relevant for classification:**
Quantitative data on the toxicological effect of this product are not available.

· **Components**	**Type**	**Value**	**Species**
Oral	LD50	321 mg/kg (rat)	

· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Other information (about experimental toxicology):**
gastric pain
diarrhoea
Cardiac irregularities
drop in blood pressure
convulsions
dyspnoea
Damage of:

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liver
Kidney
· **Additional toxicological information:**

· **Carcinogenic categories**
· **IARC (International Agency for Research on Cancer)** 2B
· **NTP (National Toxicology Program)** Substance is not listed.
· **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Water hazard class 3 (Assessment by list): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Chemicals must be disposed of in compliance with the respective national regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**
· **Recommendation:**
Disposal must be made according to official regulations.
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information

· **UN-Number**	
· **DOT, ADR, IMDG, IATA**	UN1484
· **UN proper shipping name**	
· **DOT**	Potassium bromate
· **ADR, IMDG, IATA**	POTASSIUM BROMATE

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· **Transport hazard class(es)**

· **DOT**

· **Class**	5.1 Oxidizing substances
· **Label**	5.1

· **ADR**

· **Class**	5.1 (O2) Oxidizing substances
· **Label**	5.1

· **IMDG, IATA**

· **Class**	5.1 Oxidizing substances
· **Label**	5.1

· **Packing group**	
· **DOT, ADR, IMDG, IATA**	II
· **Environmental hazards:**	Not applicable.
· **Special precautions for user**	Warning: Oxidizing substances
· **Hazard identification number (Kemler code):**	50
· **EMS Number:**	F-H,S-Q
· **Segregation groups**	(SGG3) Bromates
· **Stowage Category**	A
· **Segregation Code**	SG38 Stow "separated from" SGG2-ammonium compounds. SG49 Stow "separated from" SGG6-cyanides
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
· **IMDG**	
· **Limited quantities (LQ)**	1 kg
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g

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· **UN "Model Regulation":** UN 1484 POTASSIUM BROMATE, 5.1, II

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15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **Sara**
· **Section 355 (extremely hazardous substances):** Substance is not listed.
· **Section 313 (Specific toxic chemical listings):** Substance is listed.
· **TSCA (Toxic Substances Control Act):** ACTIVE
· **Hazardous Air Pollutants** Substance is not listed.
· **Proposition 65**
· **Chemicals known to cause cancer:** Substance is listed.
· **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
· **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
· **Chemicals known to cause developmental toxicity:** Substance is not listed.

· **Cancerogenity categories**
· **EPA (Environmental Protection Agency)** B2, K/L(oral), CBD(inh)
· **TLV (Threshold Limit Value)** Substance is not listed.
· **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
· **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS03 GHS06 GHS08

· **Signal word** Danger
· **Hazard statements**
H271 May cause fire or explosion; strong oxidizer.
H301 Toxic if swallowed.
H351 Suspected of causing cancer.
· **Precautionary statements**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat. - No smoking.
P220 Keep/Store away from clothing/combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Information about limitation of use:**
Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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Trade name: potassium bromate

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· **Contact:**
· **Date of preparation / last revision** 08/06/2025 / 6.03
· **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Oxidizing Solids 1: Oxidizing solids – Category 1
Acute Toxicity - Oral 3: Acute toxicity – Category 3
Carcinogenicity 2: Carcinogenicity – Category 2
· *** Data compared to the previous version altered.**