

## Safety Data Sheet

# Potassium Bromate Titration Solution

Version : V2.0.0.1

Report No. : BWB2025-2016-MSDS-US

Creation Date : 2025/09/09

Revision Date : 2025/09/19



\*Prepared according to American OSHA HCS-2024 (29 CFR 1910.1200)

## 1 Identification

### Product identifier

Product Name	Potassium Bromate Titration Solution
Cat No.	BWB2025-2016
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

### Recommended use of the product and restrictions on use

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

### Details of the supplier of the Safety Data Sheet

Name of the company	Weiyel Inc
Address of the company	Hedian Light Industrial Park, Chengguan Town, Shangcheng County, Xinyang City, Henan Province, China
Post code	465350
Telephone number	010-58103678
Fax number	010-84840368
E-mail address	info@weiyel.com


### Emergency phone number

Emergency phone number	010-58103678
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## 2 Hazard(s) identification

### Hazard classification according to 29 CFR 1910.1200

Acute Toxicity - Oral	Category 3
Sensitization - skin	Category 1
Serious Eye Damage/Irritation	Category 2B
Sensitization - respiratory	Category 1
Specific target organ toxicity - single exposure; respiratory tract irritation	Category 3
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity -	Category 1

single exposure	
<b>Label elements</b>	
Hazard pictograms	
Signal word	<b>Danger</b>

**Hazard statements**

H301	Toxic if swallowed
H317	May cause an allergic skin reaction
H320	Causes eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H341	Suspected of causing genetic defects
H351	Suspected of causing cancer
H370	Causes damage to organs(kidneys, central nervous system, digestive system, blood system)

**Precautionary statements**

## ◆ Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe gas/mist/vapour/spray.
P264	Wash hands and other parts of the body (if related) thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or with adequate ventilation.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P284	In case of inadequate ventilation wear respiratory protection.

## ◆ Response

P321	Specific treatment (see related instructions on the label).
P330	Rinse mouth.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## ◆ Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

## ◆ Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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**Other hazards**

Not applicable.

**Hazard description**

## ◆ Physical and chemical hazards

No information available

## ◆ Health hazards

<b>Inhaled</b>	Inhalation of vapours, especially for prolonged periods, may produce respiratory irritation and occasionally, distress. Inhalation of vapours may cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>Ingestion</b>	Toxic effects may result from the accidental ingestion of the product.
<b>Skin Contact</b>	The product may cause an allergic skin reaction following direct contact with the skin.
<b>Eye</b>	This product may cause mild eye irritation.

## ◆ Environmental hazards

Please refer to 12th chapter of SDS.

**3 Composition/information on ingredients****Substance/mixture**

Mixture

Component	CAS No.	EC No.	Concentration (wt, %)
Potassium bromate	7758-01-2	231-829-8	0.28
Water	7732-18-5	231-791-2	99.72

**4 First-aid measures****Description of first aid measures**

<b>General advice</b>	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
<b>Skin contact</b>	Take off contaminated clothing and shoes immediately. Wash off with plenty of soap and water for at least 15 minutes and consult a physician if feel uncomfortable.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
<b>Inhalation</b>	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
<b>Protecting of first-aiders</b>	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

**Most important symptoms/effects, acute and delayed**

1	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.
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**Indication of any immediate medical attention and special treatment needed**

1	Treat symptomatically.
2	Symptoms may be delayed.

**5 Fire-fighting measures****Extinguishing media**

<b>Suitable extinguishing media</b>	Small fire: water; Large fire: flood fire area with water from a distance; Fire involving tanks, rail tank cars or highway tanks: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out.
<b>Unsuitable extinguishing media</b>	Small fire: do not use dry chemicals or foams. CO <sub>2</sub> or Halon may provide limited control.

**Specific hazards arising from the substance or mixture**

1	Will not burn but increases intensity of fire.
2	Contact with combustibles such as wood, paper, oil or finely divided metal may produce spontaneous combustion or violent decomposition.
3	Has a fire-promoting effect due to release of oxygen.
4	The material may provide sufficient oxygen to make the fire fierce and self sustaining.
5	Smothering action may not be effective for established fire.
6	Development of hazardous combustion gases or vapor possible in the event of fire.
7	May expansion or decompose explosively when heated or involved in fire.

**Special protective equipment and precautions for fire-fighters**

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

**6 Accidental release measures****Personal precautions, protective equipment and emergency procedures**

1	Keep combustibles (wood, paper, oil, etc.) away from spilled material.
2	Use personal protective equipment, do not breathe gas/mist/vapour/spray.
3	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
4	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Environmental precautions**

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up**

1	It is recommended that emergency personnel wear positive pressure self-contained breathing apparatus and wear anti-static clothing.
2	In case of small amount of spillage, use clean non sparking tools to collect absorption materials.
3	In case of large amount of spillage, construct cofferdam or dig a hole to collect the spillage. Use foam cover to reduce evaporation. Water spray mist can reduce evaporation, but can not reduce the flammability of the

	leakage in the restricted space.
4	Collect absorbent material using a clean, non-sparking tool.
5	Cover with anti-solvent foam to reduce evaporation.
6	Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
7	Water spray reduces evaporation but does not reduce the flammability of spills in confined spaces.
8	Cut off the source of the leak as much as possible.
9	Keep leaks in a ventilated place.
10	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
11	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
12	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container.
13	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

## 7 Handling and storage

### Precautions for safe handling

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.
4	Keep away from heat/sparks/open flames/ hot surfaces.

### Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

## 8 Exposure controls/personal protection

### Control parameters

#### ◆ Occupational exposure limit values

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Potassium bromate	Poland	-	0.44	-	-

### Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Set up emergency exit and necessary risk-elimination area.

### Personal protection equipment

<b>General requirement</b>	
<b>Eye protection</b>	Must wear appropriate safety goggles.
<b>Hand protection</b>	Must wear appropriate chemical protective gloves.
<b>Respiratory protection</b>	Must wear appropriate personal respiratory protective equipment.
<b>Skin and body protection</b>	Must wear appropriate chemical protective clothing and chemical resistant shoes.

## 9 Physical and chemical properties and safety characteristics

### Physical and chemical properties

<b>Appearance (physical state, color, etc.)</b>	colorless liquid
<b>Odor</b>	No special odor ( Potassium bromate )
<b>Odor threshold</b>	No information available ( Potassium bromate )
<b>pH</b>	5~9 ( 20°C, 50g/L,Potassium bromate )
<b>Melting point/freezing point(°C)</b>	350 ( Potassium bromate )
<b>Initial boiling point and boiling range(°C)</b>	370 ( Decompose,Potassium bromate )
<b>Flash point(Closed cup,°C)</b>	No information available ( Potassium bromate )
<b>Evaporation rate</b>	No information available ( Potassium bromate )
<b>Flammability</b>	No information available ( Potassium bromate )
<b>Upper/lower explosive limits[% (v/v)]</b>	Upper limit : No information available ( Potassium bromate ); Lower limit : No information available ( Potassium bromate )
<b>Vapor pressure</b>	No information available ( Potassium bromate )
<b>Vapor density(Air = 1)</b>	No information available ( Potassium bromate )
<b>Relative density(Water=1)</b>	3.27 ( Potassium bromate )
<b>Solubility</b>	75 g/L ( 25°C,Potassium bromate )
<b>n-octanol/water partition coefficient</b>	No information available ( Potassium bromate )
<b>Auto-ignition temperature(°C)</b>	No information available ( Potassium bromate )
<b>Decomposition temperature(°C)</b>	370 ( Potassium bromate )
<b>Kinematic viscosity</b>	No information available ( Potassium bromate )

## 10 Stability and reactivity

### Stability and reactivity

<b>Reactivity</b>	Contact with incompatible substances can cause decomposition or other chemical reactions.
<b>Chemical stability</b>	Stable under proper operation and storage conditions.
<b>Possibility of hazardous reactions</b>	Mixture with metal powders may explode if heated, impact or friction. In contact with active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen.
<b>Conditions to avoid</b>	Incompatible materials, heat, flame and spark.
<b>Incompatible materials</b>	Metal powder, metal amino compounds, ammonia, ammonium salts, amine, amide, carboxylic acids, phenols, alcohols, carboxylic acid esters, nitriles, sulfuric acid, concentrated nitric acid and phosphoric acid. Alkali, sodium, calcium, and

	other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 Toxicological information

### | Acute toxicity

Component	LD <sub>50</sub> (oral)	LD <sub>50</sub> (dermal)	LC <sub>50</sub> (inhalation,4h)
Potassium bromate	157mg/kg(Rat)	No information available	No information available

### | Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP	OSHA Carcinogen List
Potassium bromate	Category 2B	Not Listed	Not Listed
Water	Not Listed	Not Listed	Not Listed

### | Others

Potassium Bromate Titration Solution	
<b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met
<b>Serious eye damage/irritation</b>	Causes eye irritation(Category 2B)
<b>Skin sensitization</b>	May cause an allergic skin reaction(Category 1)
<b>Respiratory sensitization</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled(Category 1)
<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met
<b>STOT-single exposure</b>	May cause respiratory irritation(Category 3); Causes damage to organs(kidneys, central nervous system, digestive system, blood system)(Category 1)
<b>STOT-repeated exposure</b>	Based on available data, the classification criteria are not met
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met
<b>Germ cell mutagenicity</b>	Suspected of causing genetic defects(Category 2)

## 12 Ecological information

### | Acute aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
Potassium bromate	No information available	EC <sub>50</sub> : > 100mg/L (48h)(Crustaceans)	ErC <sub>50</sub> : > 100mg/L (72h)(Algae)

### | Chronic aquatic toxicity

<b>Chronic aquatic toxicity</b>	No information available
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### | Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Potassium bromate	High	High

### | Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Potassium bromate	Low	Log Kow=-4.6296

### | Mobility in soil

Component	log Koc	Remark
Potassium bromate	1.545	


## 13 Disposal considerations

### | Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

## 14 Transport information

### | Label and Mark

Transporting Label	
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### | IMDG-CODE

UN number	1484
UN proper shipping name	POTASSIUM BROMATE
Transport hazard class	5.1
Transport subsidiary hazard class	None
Packing group	II
Marine pollutant ( Yes or no )	No

### | IATA-DGR

UN number	1484
UN proper shipping name	POTASSIUM BROMATE
Transport hazard class	5.1
Transport subsidiary hazard class	None
Packing group	II

### | UN-ADR

UN number	1484
UN proper shipping name	POTASSIUM BROMATE
Transport hazard class	5.1
Transport subsidiary hazard	None



class	
Packing group	II

### Transport in bulk according to IMO instruments

- ◆ Transport in bulk according to Annex II of MARPOL and the IBC code

	Not Available
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- ◆ Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

	Not Available
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- ◆ Transport in bulk in accordance with the IGC Code

	Not Available
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### Others

Precautions for transport	Strictly prohibited shipping or transportation with acids, flammable goods, organic matter, reducing agents, spontaneous combustion, flammable goods which are wet. Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.
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## 15 Regulatory information

### International chemical inventory

Component	A	B	C	D	E	F	G	H	I	J	K	L	M
Potassium bromate	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
Water	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

- [A] China Inventory of Existing Chemical Substances(IECSC)  
 [B] European Inventory of Existing Commercial Chemical Substances(EC inventory)  
 [C] United States Toxic Substances Control Act Inventory(TSCA)  
 [D] Canadian Domestic Substances List(DSL)  
 [E] New Zealand Inventory of Chemicals(NZIoC)  
 [F] Philippines Inventory of Chemicals and Chemical Substances(PICCS)  
 [G] Korea Existing Chemicals Inventory(KECL)  
 [H] Australian. Inventory of Industrial Chemical (AIICS)  
 [I] Japan Inventory of Existing & New Chemical Substances(ENCS)  
 [J] Thailand Existing Chemicals Inventory(TECI)  
 [K] Mexico National Inventory of Chemical Substances (INSQ)  
 [L] Russia Inventory of Existing Substances(DRAFT)  
 [M] Inventory of Existing Chemical Substances in Taiwan, China (TCSI)

### List of Chemical Substances under International Conventions

Component	A	B	C
Potassium bromate	✗	✗	✗
Water	✗	✗	✗

- [A] The Montreal Protocol on Substances that Deplete the Ozone Layer  
 [B] Stockholm Convention on Persistent Organic Pollutants (POPs)  
 [C] Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade

### US chemical inventory

Component	A	B	C	D	E	F	G	H
Potassium bromate	×	×	×	✓	✓	✓	✓	✓
Water	×	×	×	×	×	×	×	×

- [A] US Clean Air Act (CAA)- Section 112, Hazardous Air Pollutants  
 [B] US SARA 302- Extremely Hazardous Substance List  
 [C] US CERCLA- Hazardous Substances List  
 [D] US Massachusetts Right-to-Know Substance List  
 [E] US New Jersey Right to Know Hazardous Substance List  
 [F] US Pennsylvania Right to Know Hazardous Substance List  
 [G] US New York City Right-to-Know Hazardous Substance List  
 [H] US California Proposition 65 List

Note:

- “✓” Indicates that the substance included in the regulations.  
 “×” No data or not included in the regulations.

## 16 Other information

### Information on revision

Creation Date	2025/09/09
Revision Date	2025/09/19
Reason for revision	-

### Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.  
 [2] IARC, website: <http://www.iarc.fr/>.  
 [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.echemportal.org/echemportal/>.  
 [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.  
 [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.  
 [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.  
 [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.  
 [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

### Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC <sub>50</sub>	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD <sub>50</sub>	Lethal Dose 50%	NTP	National Toxicology Program
EC <sub>50</sub>	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC <sub>x</sub>	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P <sub>OW</sub>	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor	HCS	Hazard Communication Standard

### Disclaimer

This Safety Data Sheet (SDS) was prepared according to OSHA HCS -2024. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should

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make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.