

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Potassium iodate basic substance secondary reference material traceable to NIST

Revision date: 16.09.2022

Product code: 20517

Page 1 of 11

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Potassium iodate basic substance secondary reference material traceable to NIST

REACH Registration Number: 01-2119920996-25-XXXX
CAS No: 7758-05-6
EC No: 231-831-9

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

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name: Fa. Bernd Kraft GmbH
Street: Stempelstraße 6
Place: D-47167 Duisburg
Telephone: 0203/5194-0
e-mail: info@berndkraft.de
Contact person: Abteilung Produktsicherheit
e-mail: produktsicherheit@berndkraft.de
Internet: www.berndkraft.de
Responsible Department: Abteilung Produktsicherheit

Telefax: 0203/5194-290
Telephone: 0203/5194-107/117

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

No data available

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Ox. Sol. 2; H272
Acute Tox. 4; H302
Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

2.2. Label elements**Regulation (EC) No 1272/2008****Signal word:** Danger**Pictograms:****Hazard statements**

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.

Potassium iodate basic substance secondary reference material tracable to NIST

Revision date: 16.09.2022

Product code: 20517

Page 2 of 11

H318 Causes serious eye damage.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P220 Keep away from clothing and other combustible materials.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: KIO3
 Molecular weight: 214 g/mol

Hazardous components

| CAS No | Chemical name | | | Quantity |
|-----------|--|----------|-----------------------|----------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 7758-05-6 | potassium iodate | | | 100 % |
| | 231-831-9 | | 01-2119920996-25-XXXX | |
| | Ox. Sol. 2, Acute Tox. 4, Eye Dam. 1; H272 H302 H318 | | | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|-----------|--|------------------|----------|
| | Specific Conc. Limits, M-factors and ATE | | |
| 7758-05-6 | 231-831-9 | potassium iodate | 100 % |
| | oral: LD50 = 500 - 1100 mg/kg | | |

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air.

After contact with skin

Wash immediately with: Water
 Take off immediately all contaminated clothing and wash it before reuse.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
 Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water.

Potassium iodate basic substance secondary reference material tracable to NIST

Revision date: 16.09.2022

Product code: 20517

Page 3 of 11

Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Irritant
corrosive
Respiratory complaints
Gastrointestinal complaints
Circulatory collapse
Cyanosis (blue coloured blood)
Risk of serious damage to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible solids
Oxidizing
Hazardous combustion products
In case of fire may be liberated:
Hydrogen iodide (HI)

5.3. Advice for firefighters

Do not inhale explosion and combustion gases.
Avoid contact with skin, eyes and clothes.
In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Move undamaged containers from immediate hazard area if it can be done safely.
Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).
Collect in closed and suitable containers for disposal.

Potassium iodate basic substance secondary reference material tracable to NIST

Revision date: 16.09.2022

Product code: 20517

Page 4 of 11

Take up carefully when dry. Take up dust-free and set down dust-free.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Handle and open container with care.

Provide adequate ventilation.

Avoid contact with skin, eyes and clothes.

Avoid dust formation. Do not breathe dust.

Advice on protection against fire and explosion

Keep away from combustible material.

Advice on general occupational hygiene

Take off contaminated clothing.

Wash hands before breaks and after work.

When using do not eat or drink.

Further information on handling

Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a cool place.

Keep container tightly closed and dry.

Further information on storage conditions

storage temperature +5°C - +30°C

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Potassium iodate basic substance secondary reference material tracable to NIST

Revision date: 16.09.2022

Product code: 20517

Page 5 of 11

DNEL/DMEL values

| CAS No | Substance | | |
|--------------------------|------------------|----------|-------------------------|
| DNEL type | Exposure route | Effect | Value |
| 7758-05-6 | potassium iodate | | |
| Worker DNEL, long-term | inhalation | systemic | 8,814 mg/m ³ |
| Worker DNEL, long-term | dermal | systemic | 5 mg/kg bw/day |
| Consumer DNEL, long-term | inhalation | systemic | 1,665 mg/m ³ |
| Consumer DNEL, long-term | dermal | systemic | 2,5 mg/kg bw/day |
| Consumer DNEL, long-term | oral | systemic | 5 mg/kg bw/day |

PNEC values

| CAS No | Substance | |
|--|------------------|--|
| Environmental compartment | Value | |
| 7758-05-6 | potassium iodate | |
| Freshwater | 1 mg/l | |
| Marine water | 0,1 mg/l | |
| Freshwater sediment | 25,605 mg/kg | |
| Marine sediment | 25,605 mg/kg | |
| Micro-organisms in sewage treatment plants (STP) | 27,8 mg/l | |
| Soil | 5,867 mg/kg | |

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation KCL 741 Dermatril® L
Recommended material: NBR (Nitrile rubber) 0,11 mm
Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation KCL 741 Dermatril® L
Recommended material: NBR (Nitrile rubber) 0,11 mm
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet (>, <) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Wear suitable protective clothing.
Take off immediately all contaminated clothing.

Potassium iodate basic substance secondary reference material tracable to NIST

Revision date: 16.09.2022

Product code: 20517

Page 6 of 11

Wash hands before breaks and after work.

Respiratory protection

Respiratory protection necessary at: dust formation
Filtering device with filter or ventilator filtering device of type: P2

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|--------------------------|
| Physical state: | solid |
| Colour: | white |
| Odour: | odourless |
| Odour threshold: | No data available |
| Melting point/freezing point: | 560 °C |
| Boiling point or initial boiling point and boiling range: | No data available |
| Flammability | |
| Solid/liquid: | not determined |
| Gas: | not applicable |
| Lower explosion limits: | not determined |
| Upper explosion limits: | not determined |
| Flash point: | not applicable |
| Auto-ignition temperature: | No data available |
| Decomposition temperature: | >560 °C |
| pH-Value (at 20 °C): | ~ 6 (50 g/l) |
| Viscosity / kinematic: | No data available |
| Water solubility: (at 25 °C) | 92 g/L |
| Solubility in other solvents | not determined |
| Dissolution rate: | No data available |
| Partition coefficient n-octanol/water: | not determined |
| Dispersion stability: | No data available |
| Vapour pressure: | No data available |
| Density: | 3,98 g/cm ³ |
| Relative density: | No data available |
| Bulk density: | ~ 2000 kg/m ³ |
| Relative vapour density: | not determined |
| Particle characteristics: | No data available |

9.2. Other information

Information with regard to physical hazard classes

| | |
|---------------------------------------|-------------------|
| Explosive properties | No data available |
| Sustaining combustion: | No data available |
| Self-ignition temperature | |
| Solid: | not determined |
| Gas: | not applicable |
| Oxidizing properties | |
| The product is: oxidising, Oxidising. | |

Other safety characteristics

| | |
|-------------------|----------------|
| Evaporation rate: | not determined |
|-------------------|----------------|

Potassium iodate basic substance secondary reference material tracable to NIST

Revision date: 16.09.2022

Product code: 20517

Page 7 of 11

| | |
|--------------------------|-------------------|
| Solvent separation test: | No data available |
| Solvent content: | No data available |
| Solid content: | 100% |
| Sublimation point: | No data available |
| Softening point: | No data available |
| Pour point: | No data available |
| : | No data available |
| Viscosity / dynamic: | No data available |
| Flow time: | No data available |

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Possibility of hazardous reactions. oxidising, Oxidising.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

White/yellow phosphor
Alkali metals
Alkaline earth metal
Reducing agent
Isocyanates
coal, carbon black
arsenic
Metal powder
Combustible substance

10.4. Conditions to avoid

Humidity
Heat

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

In case of fire may be liberated:
SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

No data available

Acute toxicity

Harmful if swallowed.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Potassium iodate basic substance secondary reference material tracable to NIST

Revision date: 16.09.2022

Product code: 20517

Page 8 of 11

| CAS No | Chemical name | | | | |
|-----------|------------------|-----------------------|---------|--|--------|
| | Exposure route | Dose | Species | Source | Method |
| 7758-05-6 | potassium iodate | | | | |
| | oral | LD50 500 - 1100 mg/kg | Mouse | THYROID, Volume 11, Number 5, 2001; Mary | other: |

Irritation and corrosivity

Causes serious eye damage.
Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Corneal opacity.

Sensitising effects

Based on available data, the classification criteria are not met.
May cause sensitisation especially in sensitive humans.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

No data available

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information

No data available

Further information

Irritant
corrosive
Respiratory complaints
Gastrointestinal complaints
Circulatory collapse
Cyanosis (blue coloured blood)
Risk of serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Potassium iodate basic substance secondary reference material tracable to NIST

Revision date: 16.09.2022

Product code: 20517

Page 9 of 11

| CAS No | Chemical name | | | | | |
|-----------|--------------------------|------|-----------|---------|---------------------|--|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 7758-05-6 | potassium iodate | | | | | |
| | Acute fish toxicity | LC50 | 350 mg/l | 96 h | Oncorhynchus mykiss | OECD QSAR toolbox version 2.2, 2011;M. J |
| | Acute crustacea toxicity | EC50 | 129 mg/l | 48 h | Daphnia magna | OECD QSAR toolbox version 2.2, 2011;Lave |

12.2. Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|-----------|------------------|---------|
| 7758-05-6 | potassium iodate | 0,1 |

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

No data available

12.7. Other adverse effects

No data available

Further information

Avoid release to the environment.

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not mix with other wastes.

Do not empty into drains.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

Land transport (ADR/RID)

| | |
|--|--|
| 14.1. UN number or ID number: | UN 1479 |
| 14.2. UN proper shipping name: | OXIDIZING SOLID, N.O.S. (potassium iodate) |
| 14.3. Transport hazard class(es): | 5.1 |
| 14.4. Packing group: | II |
| Hazard label: | 5.1 |
| Classification code: | O2 |

Potassium iodate basic substance secondary reference material tracable to NIST

Revision date: 16.09.2022

Product code: 20517

Page 10 of 11

Special Provisions: 274
 Limited quantity: 1 kg
 Excepted quantity: E2
 Transport category: 2
 Hazard No: 50
 Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1479
14.2. UN proper shipping name: OXIDIZING SOLID, N.O.S. (potassium iodate)
14.3. Transport hazard class(es): 5.1
14.4. Packing group: II
 Hazard label: 5.1
 Classification code: O2
 Special Provisions: 274
 Limited quantity: 1 kg
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number or ID number: UN 1479
14.2. UN proper shipping name: OXIDIZING SOLID, N.O.S. (potassium iodate)
14.3. Transport hazard class(es): 5.1
14.4. Packing group: II
 Hazard label: 5.1
 Special Provisions: 274, 900
 Limited quantity: 1 kg
 Excepted quantity: E2
 EmS: F-A, S-Q

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1479
14.2. UN proper shipping name: OXIDIZING SOLID, N.O.S. (potassium iodate)
14.3. Transport hazard class(es): 5.1
14.4. Packing group: II
 Hazard label: 5.1
 Special Provisions: A3 A803
 Limited quantity Passenger: 2.5 kg
 Passenger LQ: Y544
 Excepted quantity: E2
 IATA-packing instructions - Passenger: 558
 IATA-max. quantity - Passenger: 5 kg
 IATA-packing instructions - Cargo: 562
 IATA-max. quantity - Cargo: 25 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Oxidising substances.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Potassium iodate basic substance secondary reference material tracable to NIST

Revision date: 16.09.2022

Product code: 20517

Page 11 of 11

Information according to 2012/18/EU
(SEVESO III):

P8 OXIDISING LIQUIDS AND SOLIDS

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

3 - highly hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,12,13,15.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H318 Causes serious eye damage.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.