

SECTION 1: Identification

1.1. Identification

| | |
|----------------|---|
| Product form | : Substance |
| Substance name | : Potassium Iodate |
| CAS-No. | : 7758-05-6 |
| Product code | : LC19590 |
| Formula | : KIO3 |
| Synonyms | : iodic acid, potassium salt / potassium iodine oxide / potassium triiodate |

1.2. Recommended use and restrictions on use

| | |
|------------------------------|--|
| Use of the substance/mixture | : Pharmaceutical product: component Veterinary medicine Laboratory chemical Food industry: Flavouring agent |
| Recommended use | : Laboratory chemicals |
| Restrictions on use | : Not for food, drug or household use |

1.3. Supplier

LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Oxidizing solids Category 3 H272 May intensify fire; oxidizer
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS03

| | |
|-----------------------------------|---|
| Signal word (GHS-US) | : Warning |
| Hazard statements (GHS-US) | : H272 - May intensify fire; oxidizer |
| Precautionary statements (GHS-US) | : P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking. P220 - Keep/Store away from clothing, combustible materials P221 - Take any precaution to avoid mixing with combustibles P280 - Wear protective gloves, protective clothing, eye protection, face protection. P370+P378 - In case of fire: Use carbon dioxide (CO ₂), powder, alcohol-resistant foam to extinguish P501 - Dispose of contents/container to comply with local, state and federal regulations |

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent

| Name | Product identifier | % | GHS-US classification |
|--|---------------------|-----|-----------------------|
| Potassium Iodate (Main constituent) | (CAS-No.) 7758-05-6 | 100 | Ox. Sol. 3, H272 |

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
- First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
- First-aid measures after skin contact : Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
- First-aid measures after eye contact : Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
- First-aid measures after ingestion : Rinse mouth with water. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : AFTER INHALATION OF DUST: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes.
- Symptoms/effects after skin contact : Slight irritation. ON CONTINUOUS EXPOSURE/CONTACT: Red skin.
- Symptoms/effects after eye contact : Slight irritation.
- Symptoms/effects after ingestion : Nausea. Abdominal pain. Diarrhoea.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Adapt extinguishing media to the environment.
- Unsuitable extinguishing media : No unsuitable extinguishing media known.

5.2. Specific hazards arising from the chemical

- Fire hazard : DIRECT FIRE HAZARD. Non combustible. INDIRECT FIRE HAZARD. Promotes combustion. Reactions involving a fire hazard: see "Reactivity Hazard".
- Explosion hazard : INDIRECT EXPLOSION HAZARD. Reactions with explosion hazards: see "Reactivity Hazard".
- Reactivity : On heating: oxidation resulting in increased fire or explosion risk and release of corrosive gases/vapours (hydrogen iodide). Violent exothermic reaction with organic material and with combustible materials: risk of spontaneous ignition. Violent exothermic reaction with (strong) reducers: (increased) risk of fire/explosion. Reacts violently with (some) metal powders.

5.3. Special protective equipment and precautions for fire-fighters

- Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
- Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.
- Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. See "Material-Handling" to select protective clothing.
- Emergency procedures : Mark the danger area. Prevent dust cloud formation. No naked flames. Keep containers closed. Wash contaminated clothes. In case of reactivity hazard: consider evacuation.
- Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection. Do not breathe dust.
- Emergency procedures : Ventilate area. If a major spill occurs, all personnel should be immediately evacuated and the area ventilated.

6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

- For containment : Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Knock down/dilute dust cloud with water spray.
- Methods for cleaning up : Stop dust cloud by covering with sand/earth. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Avoid raising dust. Use earthed equipment. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Incompatible products : Strong reducing agents.
- Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources.
- Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. reducing agents. organic materials. metal powders. water/moisture.
- Storage area : Store in a cool area. Store in a dry area. Keep out of direct sunlight. Keep container in a well-ventilated place. Fireproof storeroom. Keep only in the original container. Meet the legal requirements.
- Special rules on packaging : SPECIAL REQUIREMENTS: closing. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
- Packaging materials : SUITABLE MATERIAL: No data available. MATERIAL TO AVOID: No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

- Appropriate engineering controls : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

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8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Safety glasses. Dust production: dust mask with filter type P2.



Materials for protective clothing:

GIVE GOOD RESISTANCE: nitrile rubber

Hand protection:

Gloves

Eye protection:

Safety glasses. In case of dust production: protective goggles

Skin and body protection:

Protective clothing. In case of dust production: head/neck protection. In case of dust production: dustproof clothing

Respiratory protection:

Dust production: dust mask with filter type P2

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|--|
| Physical state | : Solid |
| Appearance | : Crystalline solid. Crystalline powder. |
| Color | : White |
| Odor | : Odorless |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : 560 °C |
| Freezing point | : No data available |
| Boiling point | : Not applicable |
| Flash point | : Not applicable |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : 3.9 |
| Specific gravity / density | : 3930 kg/m ³ |
| Molecular mass | : 214.02 g/mol |
| Solubility | : Moderately soluble in water. Water: 9.2 g/100ml |
| Log Pow | : -7.18 (Estimated value) |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : > 560 °C |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : May intensify fire; oxidiser. |

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9.2. Other information

VOC content : Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

On heating: oxidation resulting in increased fire or explosion risk and release of corrosive gases/vapours (hydrogen iodide). Violent exothermic reaction with organic material and with combustible materials: risk of spontaneous ignition. Violent exothermic reaction with (strong) reducers: (increased) risk of fire/explosion. Reacts violently with (some) metal powders.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not available.

10.4. Conditions to avoid

High temperature. Incompatible materials.

10.5. Incompatible materials

Strong reducing agents.

10.6. Hazardous decomposition products

Iodine vapor.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|--|---|
| Likely routes of exposure | : Inhalation; Skin and eye contact |
| Acute toxicity | : Not classified |
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity – single exposure | : Not classified |
| Specific target organ toxicity – repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Symptoms/effects after inhalation | : AFTER INHALATION OF DUST: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. |
| Symptoms/effects after skin contact | : Slight irritation. ON CONTINUOUS EXPOSURE/CONTACT: Red skin. |
| Symptoms/effects after eye contact | : Slight irritation. |
| Symptoms/effects after ingestion | : Nausea. Abdominal pain. Diarrhoea. |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|-----------------|---|
| Ecology - air | : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). |
| Ecology - water | : Severe water pollutant (surface water). Ground water pollutant. No data available on ecotoxicity. |

12.2. Persistence and degradability

| Potassium Iodate (7758-05-6) | |
|---------------------------------|---|
| Persistence and degradability | Biodegradability: not applicable. Biodegradability in soil: not applicable. |
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |

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12.3. Bioaccumulative potential

| Potassium Iodate (7758-05-6) | |
|------------------------------|----------------------------------|
| Log Pow | -7.18 (Estimated value) |
| Bioaccumulative potential | Bioaccumulation: not applicable. |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

- Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Precipitate/make insoluble. Remove to an authorized dump (Class I). Treat using the best available techniques before discharge into drains or the aquatic environment.
- Additional information : LWCA (the Netherlands): KGA category 06. Hazardous waste according to Directive 2008/98/EC.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

- Transport document description : UN1479 Oxidizing solid, n.o.s., 5.1, III
- UN-No.(DOT) : UN1479
- Proper Shipping Name (DOT) : Oxidizing solid, n.o.s.
- Transport hazard class(es) (DOT) : 5.1 - Class 5.1 - Oxidizer 49 CFR 173.128
- Packing group (DOT) : III - Minor Danger
- Hazard labels (DOT) : 5.1 - Oxidizer



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 213
- DOT Packaging Bulk (49 CFR 173.xxx) : 240
- DOT Symbols : G - Identifies PSN requiring a technical name

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| | |
|--|--|
| DOT Special Provisions (49 CFR 172.102) | : 62 - Oxygen generators (see §171.8 of this subchapter) are not authorized for transportation under this entry. IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner. T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter. |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : 152 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : 25 kg |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : 100 kg |
| DOT Vessel Stowage Location | : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded. |
| DOT Vessel Stowage Other | : 56 - Stow "separated from" ammonium compounds, 58 - Stow "separated from" cyanides, 106 - Stow "separated from" powdered metal |
| Other information | : No supplementary information available. |

SECTION 15: Regulatory information

15.1. US Federal regulations

Potassium Iodate (7758-05-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

| | |
|-------------------------------------|-----------------|
| SARA Section 311/312 Hazard Classes | Reactive hazard |
|-------------------------------------|-----------------|

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

Potassium Iodate (7758-05-6)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Potassium Iodate (7758-05-6)

Not listed on the Canadian IDL (Ingredient Disclosure List)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

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SECTION 16: Other information

Revision date : 02/08/2018

Full text of H-phrases: see section 16:

H272

May intensify fire; oxidizer

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 3 - Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction but that require a strong initiating source or must be heated under confinement before initiation.

NFPA specific hazard : OX - Materials that possess oxidizing properties.

Hazard Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

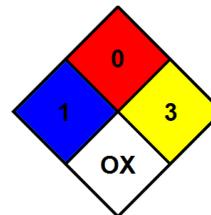
Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 3 Serious Hazard - Materials that may form explosive mixtures with water and are capable of detonation or explosive reaction in the presence of a strong initiating source. Materials may polymerize, decompose, self-react, or undergo other chemical change at normal temperature and pressure with moderate risk of explosion

Personal protection

: F

F - Safety glasses, Gloves, Synthetic apron, Dust respirator



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