

### 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.  
1010 Jackson's Pointe Ct.  
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 +1-703-741-5970

### 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

Acute toxicity (oral) Category 4 H302 Harmful if swallowed

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Warning

Hazard statements (GHS US) :

H272 - May intensify fire; oxidizer  
H302 - Harmful if swallowed

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  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear protective gloves, protective clothing, eye protection, face protection.  
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 - If swallowed, rinse mouth  
P370+P378 - In case of fire: Use carbon dioxide (CO<sub>2</sub>), powder, alcohol-resistant foam to extinguish  
P501 - Dispose of contents/container to comply with local, state and federal regulations.

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### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## 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 Acute Tox. 4 (Oral), H302

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 : Wash immediately with lots of water. Do not apply (chemical) neutralizing agents without medical advice. Soap may be used. Take victim to a doctor if irritation persists.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice.
- First-aid measures after ingestion : Rinse mouth with water. Do not apply (chemical) neutralizing agents without medical advice. Call Poison Information Centre ([www.big.be/antigif.htm](http://www.big.be/antigif.htm)). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital.

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

- Potential Adverse human health effects and symptoms : Causes skin irritation. Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). May cause respiratory irritation. Causes serious eye irritation.
- Symptoms/effects after inhalation : AFTER INHALATION OF DUST: Irritation of the respiratory tract. Irritation of the nasal mucous membranes.
- Symptoms/effects after skin contact : Tingling/irritation of the skin.
- Symptoms/effects after eye contact : Irritation of the eye tissue.
- Symptoms/effects after ingestion : Nausea. Abdominal pain. Diarrhoea.
- Chronic symptoms : No effects known.

### 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 : Water. Quick-acting ABC powder extinguisher. Quick-acting CO2 extinguisher. Quantities of water.
- Unsuitable extinguishing media : Foam. Foam.

### 5.2. Specific hazards arising from the chemical

- Fire hazard : DIRECT FIRE HAZARD. Non combustible. INDIRECT FIRE HAZARD. May intensify fire; oxidiser. Reactions involving a fire hazard: see "Reactivity Hazard".
- Explosion hazard : INDIRECT EXPLOSION HAZARD. Reactions with explosion hazards: see "Reactivity Hazard".

### 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. Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water.

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Protection during firefighting : Heat/fire exposure: compressed air apparatus (EN 136 + EN 137).

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Protective equipment : Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Dust cloud production: compressed air apparatus (EN 136 + EN 137). Dust cloud production: dust-tight suit (EN 13982).

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 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. Take collected spill to manufacturer/competent authority. 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 : Avoid raising dust. Use earthed equipment. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. 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. Keep container tightly closed.

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. strong acids. (strong) bases. 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. 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.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Potassium Iodate (7758-05-6)

No additional information available

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### 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.

### 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 EXCELLENT RESISTANCE: nitrile rubber

#### Hand protection:

Protective gloves against chemicals (EN 374)

#### Eye protection:

Face shield (EN 166). In case of dust production: protective goggles (EN 166)

#### Skin and body protection:

Protective clothing (EN 14605 or EN 13034). In case of dust production: head/neck protection. In case of dust production: dustproof clothing (EN 13982)

#### Respiratory protection:

Dust production: dust mask with filter type P2

#### Personal protective equipment symbol(s):



## 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	: 6.07 (1 %, 26 °C)
Melting point	: 560 °C (975 hPa)
Freezing point	: No data available
Boiling point	: 735 °C (Calculated)
Flash point	: Not applicable (solid)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 0 hPa (25 °C, Calculated)
Relative vapor density at 20 °C	: Not applicable
Relative density	: 3.52 (25 °C)
Specific gravity / density	: 3520 kg/m <sup>3</sup> (25 °C)
Molecular mass	: 214.02 g/mol
Solubility	: Moderately soluble in water. Water: 7 g/100ml (25 °C) Ethanol: 25 °C, insoluble
Log Pow	: -1 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Auto-ignition temperature	: Not classified
Decomposition temperature	: > 560 °C
Viscosity, kinematic	: No data available

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Viscosity, dynamic	: Not applicable (solid)
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: May intensify fire; oxidiser.

### 9.2. Other information

VOC content	: Not applicable (inorganic)
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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. Violent to explosive reaction with (some) metal powders. Decomposes on exposure to temperature rise: oxidation which increases fire hazard.

### 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

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Potassium Iodate (7758-05-6)	
LD50 oral rat	1200 mg/kg body weight (Rat, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
ATE US (oral)	1200 mg/kg body weight

Skin corrosion/irritation	: Not classified pH: 6.07 (1 %, 26 °C)
Serious eye damage/irritation	: Not classified pH: 6.07 (1 %, 26 °C)
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Likely routes of exposure	: Inhalation. Skin and eye contact.
Potential Adverse human health effects and symptoms	: Causes skin irritation. Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). May cause respiratory irritation. Causes serious eye irritation.
Symptoms/effects after inhalation	: AFTER INHALATION OF DUST: Irritation of the respiratory tract. Irritation of the nasal mucous membranes.

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Symptoms/effects after skin contact	: Tingling/irritation of the skin.
Symptoms/effects after eye contact	: Irritation of the eye tissue.
Symptoms/effects after ingestion	: Nausea. Abdominal pain. Diarrhoea.
Chronic symptoms	: No effects known.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	: Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.
Ecology - air	: Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water	: Slightly harmful to crustacea. Slightly harmful to fishes. Groundwater pollutant.

Potassium Iodate (7758-05-6)	
LC50 fish 1	350 mg/l (96 h, Oncorhynchus mykiss, Fresh water, Read-across, Lethal)
EC50 Daphnia 1	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Experimental value)

#### 12.2. Persistence and degradability

Potassium Iodate (7758-05-6)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

#### 12.3. Bioaccumulative potential

Potassium Iodate (7758-05-6)	
Log Pow	-1 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Bioaccumulative potential	Not bioaccumulative.

#### 12.4. Mobility in soil

Potassium Iodate (7758-05-6)	
Surface tension	No data available in the literature
Log Koc	1.503 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

#### 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.
Additional information	: Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

### 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.

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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
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
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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

No additional information available

### 15.3. US State regulations

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

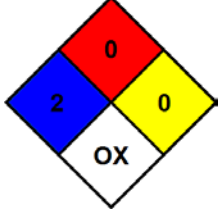
### SECTION 16: Other information

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Revision date : 11/19/2020

Full text of H-phrases: see section 16:

H272	May intensify fire; oxidizer
H302	Harmful if swallowed

NFPA health hazard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.	
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	: 0 - Material that in themselves are normally stable, even under fire conditions.	
NFPA specific hazard	: OX - Materials that posses 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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