Potassium Iodate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 02/26/2015

SECTION 1: Identification of the substance/mixture

1.1. Product identifier

Product form	:	Substance
Substance name	:	Potassium Iodate
Formula	:	KIO_3
Molecular weight	:	214.00 g/mol
CAS No.	:	7758-05-6
Product code	:	LW-KIO3
Synonyms	:	Iodic Acid, Potassium Salt

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

Use of the substance/mixture	:	Manufacture of substances

1.3. Emergency telephone number

Emergency number	:	1.800.424.9300 (USA) +1.703.527.3887 (INT)

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing solids (Category 2), H272

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label elements

GHS Label elements, including precautionary statements

Hazard pictograms (GHS-US) :

Signal word : Danger

Hazard statements

H272 : May intensify fire; oxidizer.

H315 : Causes skin irritation.

H319 : Causes serious eye irritation.

H335	:	May cause respiratory irritation.
Precautionary statement(s)	:	
P210	:	Keep away from heat.
P220	:	Keep/Store away from clothing/ combustible materials.
P221	:	Take any precaution to avoid mixing with combustibles.
P261	:	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264	:	Wash skin thoroughly after handling.
P271	:	Use only outdoors or in a well-ventilated area.
P280	:	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302 + P352	:	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	:	Call a POISON CENTER or doctor/ physician if you feel unwell.
P321	:	Specific treatment (see supplemental first aid instructions on this label).
P332 + P313	:	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	:	If eye irritation persists: Get medical advice/ attention.
P362	:	Take off contaminated clothing and wash before reuse.
P370 + P378	:	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 + P233	:	Store in a well-ventilated place. Keep container tightly closed.
P405	:	Store locked up.
P501	:	Dispose of contents/ container to an approved waste disposal plant.

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

none

SECTION 3: Composition/information on ingredients

3.1. Substances

Component	Classification	Concentration
Potassium Iodate	Ox. Sol. 2; Skin Irrit. 2; Eye	<= 100 %

	Irrit. 2A; STOT SE 3; H272, H315, H319, H335	
For the full text of the H-Statements mentioned in this Section, see Section 16.		

SECTION 4: Description of first aid measures

4.1. Description of first aid measures

General advice : Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

First-aid measures after inhalation : If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

First-aid measures after skin contact : Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

First-aid measures after eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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

No data available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hydrogen iodide, Potassium oxides

5.3. Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4. More Information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wetbrushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition – No smoking. Keep away from heat and sources of ignition.

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Contains no substances with occupational exposure limit values.

8.2. Exposure controls

Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3. Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer

surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)
Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)
data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method:
EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body protection : Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection : Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls : Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance : Form: solid
Color: white

Odor : pungent

Odor Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	Melting point/range: 560 °C (1,040 °F) - lit.
Initial boiling point and boiling range	:	No data available
Flash point	:	not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper/lower flammability or explosive limits	:	No data available
Vapor pressure	:	No data available
Vapor density	:	No data available
Relative density	:	3.93 g/cm3 at 25 °C (77 °F)
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is classified as oxidizing with the category 2.

9.2. Other information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Strong reducing agents, Powdered metals, Incompatibility: mixtures of iodates with finely divided aluminum, arsenic, copper, carbon, phosphorous (red or white) sulfur; hydrides of alkali and alkaline earth metals; sulfides of antimony, arsenic, copper or tin, metal cyanides, thiocyanates or impure manganese dioxide may react violently or explosively, either spontaneously (especially in the presence of moisture) or on initiation by heat, friction impact, sparks, or addition of sulfuric acid.

10.6. Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	LDLO Oral - mouse - 531 mg/kg LDLO Oral - guinea pig - 400 mg/kg Inhalation: no data available Dermal: no data available LD50 Intraperitoneal - mouse - 136 mg/kg Remarks: Behavioral: Convulsions or effect on seizure threshold. Behavioral: Excitement. Lungs, Thorax, or Respiration: Other changes.
Skin corrosion/irritation	:	no data available
Serious eye damage/irritation	:	no data available
Respiratory or skin sensitization	:	no data available
Germ cell mutagenicity	:	no data available

Carcinogenicity

IARC:	:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP:	:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	:	Exposure to excessive amounts of iodine during pregnancy is capable of producing fetal hypothyroidism. Iodine containing drugs have been associated with fetal goiter.

Specific target organ toxicity (single exposure)	:	Inhalation - May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	:	No data available
Aspiration hazard	:	No data available
Additional Information	:	RTECS: NN1350000 Nausea, Vomiting, Diarrhea, Rash Stomach - Irregularities - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence

SECTION 12: Ecological information

12.1. Toxicity

no data available

12.2. Persistence and degradability

no data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product	:	Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated Packaging	:	Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number	:	1479
Class	:	5.1
Packing group	:	II
Proper shipping name	:	Oxidizing solid, n.o.s. (Potassium iodate)
Marine pollutant	:	No
Poison Inhalation Hazard	:	No

IMDG

UN number	:	1479
Class	:	5.1
Packing group	:	II
EMS-No	:	F-A, S-Q
Proper shipping name	:	OXIDIZING SOLID, N.O.S. (Potassium iodate)
Marine pollutant	:	No

IATA

UN number	:	1479
Class	:	5.1
Packing group	:	II
Proper shipping name	:	Oxidizing solid, n.o.s. (Potassium iodate)

SECTION 15: Regulatory information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Potassium Iodate	CAS-No.	Revision Date
	7758-05-6	

New Jersey Right To Know Components

Potassium Iodate	CAS-No.	Revision Date
	7758-05-6	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

Eye Irrit.	:	Eye irritation
H272	:	May intensify fire; oxidizer.
H315	:	Causes skin irritation.
H319	:	Causes serious eye irritation.
H335	:	May cause respiratory irritation.
Ox. Sol.	:	Oxidizing solids
Skin Irrit.	:	Skin irritation
STOT SE	:	Specific target organ toxicity - single exposure

HMIS Rating

Health Hazard	:	2
Chronic Health Hazard	:	*
Flammability	:	0
Physical Hazard	:	2

NFPA Rating

Health hazard	:	2
Fire Hazard	:	0
Reactivity Hazard	:	2
Special Hazard	:	OX

Further Information

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