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## SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Version 9.4 Revision Date 22.03.2025 Print Date 23.03.2025 GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1	Product identifiers Product name	:	Potassium iodate
	Product Number Brand REACH No. CAS-No.	:	215929 SIGALD 01-2119920996-25-XXXX 7758-05-6

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

Identified uses : Laboratory chemicals, Manufacture of substances

# **1.3** Details of the supplier of the safety data sheet

:

Company

## 1.4 Emergency telephone

Emergency Phone # : +(44)-870-8200418 (CHEMTREC (GB)) +(353)-19014670 (CHEMTREC Ireland) 001-803-017-9114 (CHEMTREC India)

# **SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

Oxidizing solids, (Category 2)	H272: May intensify fire; oxidizer.
Acute toxicity, (Category 4)	H302: Harmful if swallowed.
Eye irritation, (Category 2)	H319: Causes serious eye irritation.
Reproductive toxicity, (Category 2)	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.

## 2.2 Label elements

## Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word

Danger

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Hazard Statements		
H272	May intensify fire; oxidizer.	
H302	Harmful if swallowed.	
H319	Causes serious eye irritation.	
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.	
Precautionary Statements		
P202	Do not handle until all safety precautions have been read and understood.	
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.	
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.	
P308 + P313	IF exposed or concerned: Get medical advice/ attention.	
Supplemental Hazard Statements	none	

## Reduced Labeling (<= 125 ml)

Pictogram



Danger

Signal Word

Hazard Statements H361fd

Suspected of damaging fertility. Suspected of damaging the unborn child.

Do not handle until all safety precautions have been read and

Precautionary Statements P202 P308 + P313

IF exposed or concerned: Get medical advice/ attention.

understood.

Supplemental Hazard Statements

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.



## SECTION 3: Composition/information on ingredients

3.1	Substances Formula Molecular weight CAS-No. EC-No.	: IKO <sub>3</sub> : 214.00 g/mol : 7758-05-6 : 231-831-9		
	Component		Classification	Concentration
	Potassium iodate			
	CAS-No. EC-No.	7758-05-6 231-831-9	Ox. Sol. 2; Acute Tox. 4; Eye Irrit. 2; Repr. 2; H272, H302, H319, H361fd	<= 100 %

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

## SECTION 4: First aid measures

#### 4.1 Description of first-aid measures

#### **General advice**

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Call in physician.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). 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

#### **Suitable extinguishing media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

## Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

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## 5.2 Special hazards arising from the substance or mixture

Hydrogen iodide Potassium oxides Not combustible. Has a fire-promoting effect due to release of oxygen. Ambient fire may liberate hazardous vapours.

## 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

## 5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## **SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures** Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

**6.2 Environmental precautions** Do not let product enter drains.

## 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

**6.4** Reference to other sections For disposal see section 13.

## SECTION 7: Handling and storage

## 7.1 Precautions for safe handling

**Advice on protection against fire and explosion** Keep away from open flames, hot surfaces and sources of ignition.

## **Hygiene measures**

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance. For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

## Storage conditions

Tightly closed. Do not store near combustible materials.

## Storage class

Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials

## 7.3 Specific end use(s)

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

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## SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

## Personal protective equipment

## Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

## **Skin protection**

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 EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact

Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L

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 EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet; www.kcl.de).

Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L

## **Body Protection**

protective clothing

## **Respiratory protection**

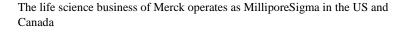
required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P3

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

## **Control of environmental exposure**

Do not let product enter drains.

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#### SECTION 9: Physical and chemical properties 9.1 Information on basic physical and chemical properties

TUI	ormation on basic p	nysical and chemical properties
a)	Physical state	solid
b)	Color	No data available
c)	Odor	odorless
d)	Melting point/freezing point	Melting point/ range: 560 °C - lit.
e)	Initial boiling point and boiling range	Not applicable
f)	Flammability (solid, gas)	No data available
g)	Upper/lower flammability or explosive limits	No data available
h)	Flash point	does not flash
i)	Autoignition temperature	does not ignite
j)	Decomposition temperature	> 560 °C
k)	рН	ca.6 at 50 g/l at 20 °C
I)	Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m)	Water solubility	70 g/l at 25 °C
n)	Partition coefficient: n-octanol/water	log Pow: -1 at 25 °C - Bioaccumulation is not expected.
o)	Vapor pressure	No data available
p)	Density	3.93 g/cm3 at 25 °C - lit.
	Relative density	No data available
q)	Relative vapor density	No data available
r)	Particle characteristics	No data available
s)	Explosive properties	Not classified as explosive.

s) Explosive properties Not classified as explosive.
t) Oxidizing properties The substance or mixture is classified as oxidizing with the category 2.

## 9.2 Other safety information

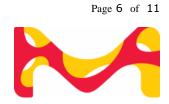
Dissociation constant 0.05

## **SECTION 10: Stability and reactivity**

## **10.1 Reactivity**

No data available

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## **10.2 Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature) .

## **10.3** Possibility of hazardous reactions

Risk of explosion with: oxidisable substances combustible substances Powdered metals Sulfides phosphorus sulfur Alkali metals hydrides Cyanides arsenic carbon/soot Alkaline earth metals powdered aluminium metallic oxides Isocyanates Reducing agents Exothermic reaction with: **Organic Substances** 

## **10.4** Conditions to avoid

no information available

- **10.5 Incompatible materials** No data available
- **10.6 Hazardous decomposition products** In the event of fire: see section 5

## SECTION 11: Toxicological information

## 11.1 Information on toxicological effects

## Acute toxicity

Acute toxicity estimate Oral - 500.1 mg/kg (Expert judgment) Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract. Symptoms: Possible damages:, mucosal irritations LD50 Dermal - Rat - male and female - > 2,000 mg/kg (OECD Test Guideline 402)

## Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)

## Serious eye damage/eye irritation

Eyes - In vitro study Result: Irritating to eyes. - 2 - 12 h

#### **Respiratory or skin sensitization** Sensitisation possible in predisposed persons.

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## Germ cell mutagenicity

Test Type: Ames test Result: negative Remarks: (Lit.) Test Type: Mutagenicity (mammal cell test): micronucleus. Metabolic activation: without metabolic activation Method: OECD Test Guideline 487 Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test Metabolic activation: without metabolic activation Method: OECD Test Guideline 476 Result: negative

Test Type: In vivo micronucleus test

Result: negative Remarks: (Lit.)

# Carcinogenicity

No data available

## **Reproductive toxicity**

Suspected of damaging the unborn child. Suspected of damaging fertility.

Specific target organ toxicity - single exposure No data available

**Specific target organ toxicity - repeated exposure** No data available

**Aspiration hazard** No data available

## **11.2 Additional Information**

## Endocrine disrupting properties

## Product:

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

RTECS: NN1350000 Nausea, Vomiting, Diarrhea, Rash To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption:

Stomach/intestinal disorders collapse respiratory arrest Cyanosis

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Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

# SECTION 12: Ecological information

## 12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	semi-static test NOEC - Daphnia magna (Water flea) - 14 mg/l - 21 d (OECD Test Guideline 211) Remarks: The value is given in analogy to the following substances: sodium fluoride

## 12.2 Persistence and degradability

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

**12.3 Bioaccumulative potential** No data available

#### 12.4 Mobility in soil

No data available

## 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

# **12.6 Endocrine disrupting properties**

# Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

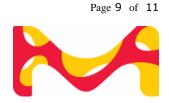
## **12.7 Other adverse effects**

No data available

## SECTION 13: Disposal considerations

#### **13.1 Waste treatment methods** No data available

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## **SECTION 14: Transport information**

14.1	<b>UN numb</b> ADR/RID:		IMDG: 1479	IATA: 1479
14.2	ADR/RID:	OXIDIZING SOLID,	N.O.S. (Potassium iodate) N.O.S. (Potassium iodate) .s. (Potassium iodate)	
14.3	Transpor ADR/RID:	t hazard class(es) 5.1	IMDG: 5.1	IATA: 5.1
14.4	<b>Packagin</b> ADR/RID:		IMDG: II	IATA: II
14.5	<b>Environm</b> ADR/RID:	no no	IMDG Marine pollutant: no	IATA: no
14.6	Special p	recautions for use	r	
	Further in	formation :	No data available	
14.7	Maritime	transport in bulk	according to IMO instrumen	ts

Not applicable for product as supplied.

#### **SECTION 15: Regulatory information**

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

## **National legislation**

Seveso III: Directive 2012/18/EU of the P8 European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. OXIDISING LIQUIDS AND SOLIDS

## **Other regulations**

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

## **15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

## **SECTION 16: Other information**

## Full text of H-Statements

H272	May intensify fire; oxidizer.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.

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## Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM -American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIOC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

## **Further information**

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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