

Safety Data Sheet

#90030184 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Potassium iodide ACS Grade	7681-11-0	IK	—	26 Feb 2025

SECTION 1

Identification

1.1 Product identifier

Product name Potassium iodide

CAS number 7681-11-0

EC / EINECS number 231-659-4

Chemical formula IK

Molecular weight 166.002

SMILES [K+].[I-]

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

For research use only.

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Skin Irrit. 2; H315

Eye Irrit. 2; H319

STOT SE 3; H335

Repr. 1A or Repr. 1B; H360FD

STOT RE 1; H372

Aquatic Chronic 2; H411

2.2 Label elements



DANGER

CODE	HAZARD STATEMENT
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H303	May be harmful if swallowed
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H315	Causes skin irritation
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H319	Causes serious eye irritation
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H335	May cause respiratory irritation
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H360FD	May damage fertility. May damage the unborn child.
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H372	Causes damage to organs through prolonged or repeated exposure
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H411	Toxic to aquatic life with long lasting effects
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CODE	PRECAUTIONARY STATEMENT
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P260	Do not breathe dust/fume/gas/mist/vapours/spray
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P263	Avoid contact during pregnancy/while nursing
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P273	Avoid release to the environment
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P302+P352	IF ON SKIN: Wash with soap and water
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P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
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P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing
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2.3 Other hazards

Does not contain components considered to be persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

Does not contain components considered to have endocrine-disrupting properties.

Does not meet PBT or vPvB criteria under REACH Annex XIII.

SECTION 3

Composition / information on ingredients**3.1 Substances**

Name	Potassium iodide
CAS number	7681-11-0
EC number	231-659-4
Concentration / purity	100 % Potassium iodide (CAS 7681-11-0)
Classification according to Regulation (EC) No 1272/2008	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 Repr. 1A or Repr. 1B; H360FD STOT RE 1; H372 Aquatic Chronic 2; H411
Hazard statements	H303, H315, H319, H335, H360FD, H372, H411
Acute toxicity estimate (ATE)	<i>No data available</i>
Impurities / stabilising additives	None.

SECTION 4

First-aid measures**4.1 Description of first aid measures**

Inhalation	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Contact a physician if discomfort continues.
Eye contact	Remove contact lenses if present. Rinse eyes with water. Continue to rinse for at least 15 minutes and seek medical attention
Ingestion	IF SWALLOWED: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only if the persons are fully conscious and awake). Administer activated charcoal (20 - 40g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5

Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Alcohol-resistant foam, carbon dioxide, dry powder or water fog. Water spray

Unsuitable extinguishing media None known

5.2 Special hazards arising from the substance or mixture

Hydrogen iodide

Potassium oxides

Not combustible.

Fire may cause evolution of hydrogen iodide

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.

Suppress (knock down) gases/vapours/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

Avoid breathing dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. For personal protection, see section 8.

6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3 Methods and material for containment and cleaning up

Collect spillage with shovel, broom or the like.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Wear protective clothing, gloves, eye and face protection. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature Ambient

Conditions for safe storage (incompatibilities) Hygroscopic. Store under inert gas.

7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limits (OEL / WEL) *No data available*

DNEC/PNEC data *No data available*

8.2 Exposure controls

Eye / face protection	Safety glasses Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.
Skin / hand protection	Nitrile gloves Thickness: 0.11mm. Breakthrough time: 480mins. For personal protection standards, see Section 16.
Respiratory protection	Full-face respirator Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.
Other protection	<i>No data available</i>
Environmental exposure controls	<i>No data available</i>

SECTION 9

Physical & chemical properties

9.1 Information on basic physical and chemical properties

Appearance / physical state	Solid DERIVED FROM: LITERATURE
Colour	White to off-white DERIVED FROM: LITERATURE
Odour	Not known DERIVED FROM: LITERATURE
Melting / freezing point	680°C DERIVED FROM: LITERATURE
Boiling point	1330°C DERIVED FROM: LITERATURE
Flammability	<i>No data available</i>
Lower and upper explosion limit	<i>No data available</i>
Flash point	<i>Not applicable</i>

Auto-ignition temperature	- DERIVED FROM: LITERATURE
Decomposition temperature	No data available
pH	c. 6.9 @ 50 g/l (20°C) DERIVED FROM: LITERATURE
Acidity	Neutral DERIVED FROM: LITERATURE
Kinematic viscosity	No data available
Solubility	No data available
Partition coefficient n-octanol/water (log value)	- DERIVED FROM: LITERATURE
Vapour pressure	C. 1 hPa @ 745°C DERIVED FROM: LITERATURE
Density (g/mL)	3.13 g/mL DERIVED FROM: LITERATURE
Relative vapour density	No data available
Particle characteristics	No data available

9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under the prescribed storage conditions

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Risk of explosion with:

Alkali metals

Ammonia

halogen-halogen compounds

hydrogen peroxide

Perchloryl fluoride

Exothermic reaction with:

Oxidizing agents

Risk of ignition or formation of inflammable gases or vapours with: Fluorine

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

See section 5

SECTION 11

Toxicological information

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

Acute toxicity (LD50 / LC50) LD50 (Oral): 2779 mg/kg (Rat)

Skin corrosion / irritation *Not applicable*

Eye corrosion / irritation *Not applicable*

Respiratory / skin sensitisation *Not applicable*

Carcinogenicity May damage the unborn child.
May damage fertility.

Mutagenicity *Not applicable*

Reproductive toxicity *Not applicable*

STOT (single / repeated exposure) Oral - May cause damage to organs through prolonged or repeated exposure.
- Thyroid
Oral - May cause damage to organs through prolonged or repeated exposure.
- Liver.

Aspiration hazard Not classified

11.2 Information on other hazards

No data available

SECTION 12

Ecological information

12.1 Toxicity

static test LC50 - Oncorhynchus mykiss (rainbow trout) - 3,780 mg/l - 96 h (OECD Test Guideline 203)

static test EC50 - Daphnia magna (Water flea) - 7.5 mg/l - 48 h (OECD Test Guideline 202)

flow-through test NOEC - Danio rerio (zebra fish) - 9.8 mg/l - 30 d (OECD Test Guideline 210) Remarks: (ECHA)

12.2 Persistence and degradability

Not applicable

12.3 Bioaccumulative potential

Not applicable

12.4 Mobility in soil

Not applicable

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local/national regulations

SECTION 14

Transport information

14.1 UN number or ID number

UN3077

14.2 UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

14.3 Transport hazard class(es)

9



14.4 Packing group

III

14.5 Environmental hazards

Yes.

14.6 Special precautions for user

Special precautions for user Handle in accordance with good industrial hygiene and safety practice

Transport category 3

Tunnel code -

Packing instruction (ADR) P002

Packing instruction (IMDG) P002

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

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

Substance-specific regulations (e.g. licences)	No data available
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REACH code	Y110
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ECHA notification	Not applicable
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15.2 Chemical safety assessment

Not applicable

SECTION 16

Other information

Revision notes / other information	Eye/Face protection complies with EN ISO 16321-1:2022.
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This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.