

Iodine solution

318981-500ML

Version 1.5

Revision Date 16.12.2022

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

1.1. Product identifier

Product name : Iodine solution

SDS-number : 000000021492

Type of product : Mixture

Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.

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

Use of the Substance/Mixture : Laboratory chemicals

Uses advised against : none

1.3. Details of the supplier of the safety data sheet

Company : Honeywell International Inc. Honeywell International, Inc.
115 Tabor Road 115 Tabor Road
07950-2546 Morris Plains Morris Plains, NJ 07950-2546
USA USA

Telephone :

For further information, please contact: : SafetyDataSheet@Honeywell.com

1.4. Emergency telephone number

Emergency telephone number : +1-703-527-3887 (ChemTrec-Transport)
+1-303-389-1414 (Medical)

Country based Poison Control Center : see chapter 15.1

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

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Specific target organ toxicity - repeated exposure Category 2
H373 May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms	:		
Signal word	:	Warning	
Hazard statements	:	H373	May cause damage to organs through prolonged or repeated exposure.
Precautionary statements	:	P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
		P280	Wear protective gloves/ eye protection/ face protection.
		P308 + P313	IF exposed or concerned: Get medical advice/ attention.
Hazardous components which must be listed on the label	:	iodine	

2.3. Other hazards

This product is a mixture. Health hazard information is based on its components. Iodide may cause effects on the thyroid. Results of PBT and vPvB assessment, see chapter 12.5.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Chemical name	CAS-No. Index-No.	Classification 1272/2008	Concentration	Remarks
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	REACH Registration Number EC-No.			
iodine	7553-56-2 053-001-00-3 231-442-4	Acute Tox. 4; H302; Oral Acute Tox. 4; H332; Inhalation Acute Tox. 4; H312; Dermal Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335; Respiratory system STOT RE 1; H372 Aquatic Acute 1; H400	< 2,2 %	
Potassium iodide	7681-11-0 231-659-4	STOT RE 1; H372; Oral; Thyroid	>= 1 % - < 5 %	

Remaining components of this product are non-hazardous and/or are present at concentrations below reportable limits.

Occupational Exposure Limit(s), if available, are listed in Section 8.
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:

First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation:

If breathed in, move person into fresh air. If symptoms persist, call a physician.

Skin contact:

After contact with skin, wash immediately with plenty of water. If symptoms persist, call a physician.

Eye contact:

Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. If eye irritation persists, consult a specialist.

Ingestion:

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When swallowed, allow water to be drunk. Call a physician immediately.

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

No data available

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

Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms. :

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray jet
Foam
Carbon dioxide (CO₂)
Dry powder

Extinguishing media which shall not be used for safety reasons:

High volume water jet

5.2. Special hazards arising from the substance or mixture

In case of fire hazardous decomposition products may be produced such as:

Hydrogen iodide (HI)
Iodine compounds
Potassium oxide

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Do not use a solid water stream as it may scatter and spread fire. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Provide adequate ventilation. Wear personal protective equipment. Unprotected persons must be kept away. Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material.
Pick for disposal in tightly closed containers

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:

Wear personal protective equipment. Avoid inhalation, ingestion and contact with skin and eyes.

Advice on protection against fire and explosion:

Normal measures for preventive fire protection.

Hygiene measures:

Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

no additional data available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
iodine	EH40 WEL			Listed
iodine	EH40 WEL STEL	1,1 mg/m3 0,1 ppm		

STEL - Short term exposure limit

DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
iodine	Workers / Long-term systemic effects		0,07 mg/m3	Inhalation	
iodine	Workers / Long-term systemic effects		0,01mg/kg bw/d	Skin contact	
Potassium iodide	Workers / Long-term systemic effects		0,07 mg/m3	Inhalation	
Potassium iodide	Workers / Long-term systemic effects		1,0mg/kg bw/d	Skin contact	
Potassium iodide	Consumers / Long-term systemic effects		0,035 mg/m3	Inhalation	
Potassium iodide	Consumers / Long-term		1mg/kg bw/d	Skin contact	

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	systemic effects				
Potassium iodide	Consumers / Long-term systemic effects		0,01mg/kg bw/d	Ingestion	
Potassium iodide	Consumers / Acute systemic effects		0,01mg/kg bw/d	Ingestion	

Component	Environmental compartment / Value	Remarks
iodine	Fresh water sediment: 0,01813 mg/l	
iodine	Marine water: 0,06001 mg/l	
iodine	Sewage treatment plant: 11 mg/l	Assessment factor: 10
iodine	Fresh water sediment: 3,99 mg/kg dw	
iodine	Marine sediment: 20,22 mg/kg dw	
iodine	Soil: 5,95 mg/kg dw	
Potassium iodide	Fresh water: 0,0075 mg/l	Assessment factor: 1000
Potassium iodide	Marine water:	No hazard identified
Potassium iodide	Sewage treatment plant:	No hazard identified
Potassium iodide	Fresh water sediment: 0,0075 mg/kg dw	Assessment factor: 1000
Potassium iodide	Marine sediment:	No hazard identified
Potassium iodide	Soil:	No hazard identified

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140,

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149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.

Personal protective equipment

Respiratory protection:

In the case of vapour formation use a respirator with an approved filter.

Hand protection:

Glove material: Natural Latex

Break through time: 480 min

Glove thickness: 0,6 mm

Lapren®706

Gloves must be inspected prior to use.

Replace when worn.

Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer´s directions for use should be observed because of great diversity of types .

Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection:

Safety goggles

Skin and body protection:

Protective suit

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : liquid

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Colour	:	No data available
Odour	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Flash point	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No decomposition if used as directed.
pH	:	No data available
Viscosity, kinematic	:	No data available
Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	No data available
Density	:	No data available
Relative vapour density	:	No data available

9.2 Other Information

Evaporation rate	:	No data available
Viscosity, dynamic	:	No data available

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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

No decomposition if used as directed.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Protect from contamination.

10.5. Incompatible materials

Strong oxidizing agents
Strong reducing agents

10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

Acute toxicity estimate

Value: > 2.000 mg/kg

Method: Calculation method

Acute dermal toxicity:

Acute toxicity estimate

Value: > 2.000 mg/kg

Method: Calculation method

Acute inhalation toxicity:

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Acute toxicity estimate

Value: > 5 mg/l

Exposure time: 4 h

Method: Calculation method

Skin irritation:

No data available

Eye irritation:

No data available

Respiratory or skin sensitisation:

No data available

Carcinogenicity:

Note: No data available

Germ cell mutagenicity:

Note: No data available

Reproductive toxicity:

Remarks: No data available

Aspiration hazard:

No data available

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information:

No data available

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:

No data available

Toxicity to aquatic plants:

No data available

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Toxicity to aquatic invertebrates:
No data available

12.2. Persistence and degradability

Biodegradability:
The methods for determining biodegradability 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

No data available

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:
Dispose according to legal requirements.

Packaging:
Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:
Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC
Regulation No. 1013/2006

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For personal protection see section 8.

SECTION 14: Transport information

14.1 UN number

ADR/RID:Not dangerous goods IMDG:Not dangerous goods IATA:Not dangerous goods

14.2 UN proper shipping name

ADR/RID:Not dangerous goods
IMDG:Not dangerous goods
IATA:Not dangerous goods

14.3 Transport hazard class(es)

14.4 Packaging group

14.5 Environmental hazards

ADR/RID:no Marine pollutant: no

14.6 Special precautions for user

No data available

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

Basis	Value	Remarks
Directive 2012/18/EC		Not applicable
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of ≥ 0.1 % (w/w).

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Poison Control Center

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777
Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
Munich : 089/19240	
Latvia	+37167042473

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	800250250
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051
Spain	+34915620420
Sweden	112 (begär Gifinformation);+46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

Other inventory information

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US. Toxic Substances Control Act
On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

iodine : H302 Harmful if swallowed.
H332 Harmful if inhaled.
H312 Harmful in contact with skin.

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- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.

Potassium iodide : H372 Causes damage to organs through prolonged or repeated exposure if swallowed.

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

EC European Community
CAS Chemical Abstracts Service
DNEL Derived no effect level
PNEC Predicted no effect level
vPvB Very persistent and very bioaccumulative substance
PBT Persistent, bioaccumulative und toxic substance

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