

Iodine**03002-500G**

Version 1.2

Revision Date 05/24/2022

Print Date 05/29/2023

SECTION 1. IDENTIFICATION

Product name : Iodine

Number : 000000020713

Product Use Description : Laboratory chemicals, Industrial use

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH
Wunstorfer Straße 40
Seelze, 30926

For more information call : 1-800-368-0050
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : solid

Color : black

Odor : characteristic

Classification of the substance or mixture

Classification of the substance or mixture : Acute toxicity, Category 4, Inhalation
Acute toxicity, Category 4, Dermal
Skin irritation, Category 2
Eye irritation, Category 2A
Specific target organ toxicity - single exposure, Category 3,
Respiratory system

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Specific target organ toxicity - repeated exposure, Category 1,
Thyroid

GHS Label elements, including precautionary statements

Symbol(s)

:



Signal word

: Danger

Hazard statements

: Harmful in contact with skin or if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

: **Prevention:**
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Get medical advice/ attention if you feel unwell.
If skin irritation occurs: Get medical advice/ attention.
If eye irritation persists: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:

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Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity

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, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : I₂

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Iodine	7553-56-2	100.00 %

SECTION 4. FIRST AID MEASURES

- General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.
- Inhalation : In case of accident by inhalation: remove casualty to fresh air and keep at rest. Call a physician immediately.
- Skin contact : After contact with skin, wash immediately with plenty of soap and water. If symptoms persist, call a physician.
- Eye contact : Protect unharmed eye. Rinse thoroughly with plenty of water, also under the eyelids. Call a physician immediately.
- Ingestion : When swallowed, allow water to be drunk. Do NOT induce vomiting. Call a physician immediately.

Notes to physician

Most important : No information available.

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symptoms/effects, acute and
delayed

Indication of immediate : Treat symptomatically.
medical attention and
special treatment needed, if
necessary

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO₂)
Dry powder

Specific hazards during : The product itself does not burn.
firefighting

Special protective equipment : Wear self-contained breathing apparatus and protective suit.
for firefighters No unprotected exposed skin areas.

Further information : Use extinguishing measures that are appropriate to local
circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : Evacuate personnel to safe areas.
protective equipment and : Wear personal protective equipment. Unprotected persons
emergency procedures : must be kept away.
Ensure adequate ventilation.
Do not breathe dust.
Avoid contact with skin, eyes and clothing.

Environmental precautions : Do not flush into surface water or sanitary sewer system.

Methods and materials for : Use mechanical handling equipment.
containment and cleaning : Sweep up and shovel into suitable containers for disposal.
up : Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE**Handling**

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Precautions for safe handling : Wear personal protective equipment.
Use only in well-ventilated areas.
Avoid exposure - obtain special instructions before use.
Avoid formation of respirable particles.
Never return unused material to storage receptacle.
Protect from contamination.

Advice on protection against fire and explosion : The product is not flammable.
Normal measures for preventive fire protection.

Storage

Conditions for safe storage, including any incompatibilities : Store in original container.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Store in a place accessible by authorized persons only.

Advice on common storage : Keep away from reducing agents.
Amines

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.
Do not breathe dust.
Avoid contact with skin, eyes and clothing.

Engineering measures : Use with local exhaust ventilation.

Eye protection : Safety goggles

Hand protection : Impervious gloves
Gloves must be inspected prior to use.
Replace when worn.

Skin and body protection : Protective suit

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory

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equipment.

Hygiene measures : Keep working clothes separately.
 Separate rooms are required for washing, showering and changing clothes.
 Recommended preventive skin protection
 When using, do not eat, drink or smoke.
 Contaminated work clothing should not be allowed out of the workplace.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Iodine	7553-56-2	TWA : Time weighted average	(0.01 ppm)	03 2014	ACGIH:US. ACGIH Threshold Limit Values, as amended
Further information	:	Form of exposure : Inhalable fraction and vapor.			

Iodine	7553-56-2	STEL : Short term exposure limit	(0.1 ppm)	03 2017	ACGIH:US. ACGIH Threshold Limit Values, as amended
Further information	:	Form of exposure : Vapor fraction			

Iodine	7553-56-2	Ceil_Tim e : Ceiling Limit Value and Time Period (if specified) :	1 mg/m3 (0.1 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
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Iodine	7553-56-2	Ceiling : Ceiling Limit Value:	1 mg/m3 (0.1 ppm)	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
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Iodine	7553-56-2	Ceiling : Ceiling Limit Value:	1 mg/m3 (0.1 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: solid
Color	: black
Odor	: characteristic
Odor threshold	: Note: No data available
pH	: Note: No data available
Melting point/range	: 113.5 °C
Flash point	: Note: Not applicable
Evaporation rate	: Note: No data available
Flammability	: The product is not flammable.
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapor pressure	: 0.31 hPa at 20 °C(68 °F)
Vapor density	: Note: No data available

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Density : ca. 4.930 g/cm³ at 20 °C

Water solubility : 0.29 g/l at 20 °C

0.30 g/l at 25 °C

Partition coefficient:
n-octanol/water : log Pow: 2.49

Ignition temperature : Note: Not applicable

Auto-ignition temperature : Note: not auto-flammable

Decomposition temperature : Note: Not applicable

Viscosity, dynamic : Note: Not applicable

Viscosity, kinematic : Note: Not applicable

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : 253.81 g/mol

Sublimation point : 184 °C at 1,013.00 hPa

Bulk density : ca. 2,000 kg/m³**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under recommended storage conditions.

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Possibility of hazardous reactions	: Avoid amines. Reactions with light metals.
Conditions to avoid	: Protect from contamination. Keep away from reducing agents.
Incompatible materials	: Amines Ammonia
Hazardous decomposition products	: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: Note: No data available
Acute inhalation toxicity	: LC50: > 4.588 mg/l Exposure time: 4 h Species: Rat, male and female Method: OECD Test Guideline 403 Note: Technically maximum achievable concentration.
Acute dermal toxicity	: LD50: 1,425 mg/kg Species: Rabbit, male : LD50: > 2,000 mg/kg Species: Rabbit, female
Skin irritation	: Species: reconstructed human epidermis (RhE) Result: irritating
Eye irritation	: Note: Conclusive and supporting classification (Ref: REACH Dossier - ECHA disseminated data)
Sensitisation	: Species: Mouse Result: Did not cause sensitisation on laboratory animals.

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Method: OECD Test Guideline 429

Repeated dose toxicity : Species: Rat, male and female
Application Route: Oral
NOAEL (No observed adverse effect level): 3 mg/l
LOAEL (Lowest observed adverse effect level): 10 mg/l
Target Organs: Thyroid
Method: OECD Test Guideline 408

Aspiration toxicity : Not applicable

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish : static test
LC50: 1.67 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates : static test
LC50: 0.59 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

Toxicity to algae : static test
EC50: 0.13 mg/l
Exposure time: 72 h
Species: Desmodesmus subspicatus (green algae)
Method: OECD Test Guideline 201

: static test
NOEC: 0.025 mg/l
Exposure time: 72 h
Species: Desmodesmus subspicatus (green algae)
Method: OECD Test Guideline 201

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Further information on ecology

Additional ecological information : Do not flush into surface water or sanitary sewer system. The methods for determining biodegradability are not applicable to inorganic substances.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT	UN/ID No.	: UN 3495
	Proper shipping name	: IODINE
	Class	: 8
	Packing group	: III
	Hazard Labels	: 8 (6.1)
IATA	UN/ID No.	: UN 3495
	Description of the goods	: IODINE
	Class	: 8
	Packaging group	: III
	Hazard Labels	: 8 (6.1)
	Packing instruction (cargo aircraft)	: 864
	Packing instruction (passenger aircraft)	: 860
	Packing instruction (passenger aircraft)	: Y845
IMDG	UN/ID No.	: UN 3495
	Description of the goods	: IODINE
	Class	: 8
	Packaging group	: III
	Hazard Labels	: 8 (6.1)
	EmS Number	: F-A, S-B
	Marine pollutant	: yes
IMDG Code segregation group (SGG1) – ACIDS,		

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EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

SECTION 15. REGULATORY INFORMATION**Inventories**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemicals Act (AICC), 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

National regulatory information

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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	:	Acute Health Hazard Chronic Health Hazard
CERCLA Reportable Quantity	:	
California Prop. 65	:	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
Massachusetts RTK	:	Iodine 7553-56-2
New Jersey RTK	:	Iodine 7553-56-2
Pennsylvania RTK	:	Iodine 7553-56-2

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 3*	3
Flammability	: 0	0
Physical Hazard	: 1	
Instability	:	1

* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

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Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group