

**Zinc iodide ≥ 99%, p.a.**

article number: **9839**  
 Version: **GHS 3.0 en**  
 Replaces version of: 2017-01-26  
 Version: (GHS 2)

date of compilation: 2016-05-31  
 Revision: 2019-02-21

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

**1.1 Product identifier**

Identification of the substance	<b>Zinc iodide</b>
Article number	9839
Registration number (REACH)	It is not required to list the identified uses because the substance is not subject to registration according to REACH (< 1 t/a)
EC number	233-396-0
CAS number	10139-47-6

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

**Identified uses:** laboratory chemical  
laboratory and analytical use

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

Carl Roth GmbH + Co KG  
 Schoemperlenstr. 3-5  
 D-76185 Karlsruhe  
 Germany

**Telephone:** +49 (0) 721 - 56 06 0

**Telefax:** +49 (0) 721 - 56 06 149

**e-mail:** [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

**Website:** [www.carlroth.de](http://www.carlroth.de)

Competent person responsible for the safety data sheet : Department Health, Safety and Environment

**e-mail (competent person)** : [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

**1.4 Emergency telephone number**

Emergency information service **Poison Centre Munich: +49/(0)89 19240**

## SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture****Classification acc. to GHS**

This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC. This substance does not meet the criteria for classification.

**2.2 Label elements****Labelling GHS**

not required

**Signal word** not required

**2.3 Other hazards**

There is no additional information.

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Name of substance	Zinc iodide
EC number	233-396-0
CAS number	10139-47-6
Molecular formula	ZnI <sub>2</sub>
Molar mass	319.2 g/mol

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off contaminated clothing.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following eye contact

Consult an ophthalmologist.

#### Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

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

Vomiting, Nausea, Diarrhoea

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

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media



#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings  
water spray, foam, dry extinguishing powder, carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

water jet

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**5.2 Special hazards arising from the substance or mixture**

The product itself does not burn.

**Hazardous combustion products**

In case of fire may be liberated: hydrogen iodide (HI)

**5.3 Advice for firefighters**

Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Control of dust. Avoid contact with skin and eyes.

**6.2 Environmental precautions**

Keep away from drains, surface and ground water.

**6.3 Methods and material for containment and cleaning up****Advices on how to contain a spill**

Covering of drains.

**Advices on how to clean up a spill**

Take up mechanically.

**Other information relating to spills and releases**

Place in appropriate containers for disposal.

**6.4 Reference to other sections**

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Avoid dust formation. When not in use, keep containers tightly closed.

**Advice on general occupational hygiene**

Wash hands before breaks and after work.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed. Store in a dry place.

**Incompatible substances or mixtures**

Observe hints for combined storage.

**Consideration of other advice****• Ventilation requirements**

Use local and general ventilation.

**• Specific designs for storage rooms or vessels**

Recommended storage temperature: 15 – 25 °C.

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### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

Data are not available.

### 8.2 Exposure controls

#### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggle with side protection.

#### Skin protection



- **hand protection**

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374.

- **type of material**

NBR (Nitrile rubber)

- **material thickness**

>0,11 mm

- **breakthrough times of the glove material**

>480 minutes (permeation: level 6)

- **other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

#### Respiratory protection



Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P2 (filters at least 94 % of airborne particles, colour code: White).

#### Environmental exposure controls

Keep away from drains, surface and ground water.

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## SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties****Appearance**

Physical state	solid (powder, crystalline)
Colour	white - light yellow
Odour	odourless
Odour threshold	No data available

**Other physical and chemical parameters**

pH (value)	5.6 (water: 50 g/l, 20 °C)
Melting point/freezing point	446 °C
Initial boiling point and boiling range	625 °C
Flash point	not applicable
Evaporation rate	no data available
Flammability (solid, gas)	These information are not available
<u>Explosive limits</u>	
• lower explosion limit (LEL)	this information is not available
• upper explosion limit (UEL)	this information is not available
Explosion limits of dust clouds	these information are not available
Vapour pressure	This information is not available.
Density	4.74 g/cm <sup>3</sup> at 20 °C
Vapour density	This information is not available.
Bulk density	~ 1,800 kg/m <sup>3</sup>
Relative density	Information on this property is not available.
<u>Solubility(ies)</u>	
Water solubility	~ 4,500 g/l at 20 °C
<u>Partition coefficient</u>	
n-octanol/water (log KOW)	This information is not available.
Auto-ignition temperature	Information on this property is not available.
Decomposition temperature	no data available
Viscosity	not relevant (solid matter)
Explosive properties	Shall not be classified as explosive
Oxidising properties	none

**9.2 Other information**

There is no additional information.

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**SECTION 10: Stability and reactivity****10.1 Reactivity**

This material is not reactive under normal ambient conditions.

**10.2 Chemical stability**

May cause decomposition by long-term light influence. Hygroscopic solid.

**10.3 Possibility of hazardous reactions**

Violent reaction with: Peroxides, Strong alkali, Potassium, Strong oxidiser

**10.4 Conditions to avoid**

Direct light irradiation. Humidity.

**10.5 Incompatible materials**

There is no additional information.

**10.6 Hazardous decomposition products**

Hazardous combustion products: see section 5.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Shall not be classified as acutely toxic.

**Skin corrosion/irritation**

Shall not be classified as corrosive/irritant to skin.

**Serious eye damage/eye irritation**

Shall not be classified as seriously damaging to the eye or eye irritant.

**Respiratory or skin sensitisation**

Shall not be classified as a respiratory or skin sensitiser.

**Summary of evaluation of the CMR properties**

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant

**• Specific target organ toxicity - single exposure**

Shall not be classified as a specific target organ toxicant (single exposure).

**• Specific target organ toxicity - repeated exposure**

Shall not be classified as a specific target organ toxicant (repeated exposure).

**Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

**Symptoms related to the physical, chemical and toxicological characteristics****• If swallowed**

diarrhoea, vomiting, nausea

**• If in eyes**

data are not available

**• If inhaled**

Inhalation of dust may cause irritation of the respiratory system

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data are not available

**Other information**

None

**SECTION 12: Ecological information****12.1 Toxicity**

The statement is derived from products of similar structure or composition. acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

**12.2 Process of degradability**

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

**12.3 Bioaccumulative potential**

Data are not available.

**12.4 Mobility in soil**

Data are not available.

**12.5 Results of PBT and vPvB assessment**

Data are not available.

**12.6 Other adverse effects**

Data are not available.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Consult the appropriate local waste disposal expert about waste disposal.

**Sewage disposal-relevant information**

Do not empty into drains.

**Waste treatment of containers/packagings**

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

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**Waste treatment of containers/packagings**

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**13.2 Relevant provisions relating to waste**




The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**13.3 Remarks**

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

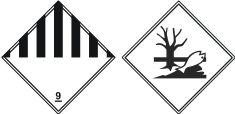

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## SECTION 14: Transport information

<b>14.1</b>	UN number	<b>3077</b>
<b>14.2</b>	UN proper shipping name	<b>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.</b>
	Hazardous ingredients	Zinc iodide
<b>14.3</b>	Transport hazard class(es)	
	Class	9 (miscellaneous dangerous substances and articles) (environmentally hazardous)
<b>14.4</b>	Packing group	III (substance presenting low danger)
<b>14.5</b>	Environmental hazards	hazardous to the aquatic environment
<b>14.6</b>	<b>Special precautions for user</b>	
	Provisions for dangerous goods (ADR) should be complied within the premises.	
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	
	The cargo is not intended to be carried in bulk.	
<b>14.8</b>	<b>Information for each of the UN Model Regulations</b>	
	<b>• Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)</b>	
	UN number	3077
	Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
	Particulars in the transport document	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (Zinc iodide), 9, III, (-)
	Class	9
	Classification code	M7
	Packing group	III
	Danger label(s)	9 + "fish and tree"
	 	
	Environmental hazards	yes (hazardous to the aquatic environment)
	Special provisions (SP)	274, 335, 375, 601
	Excepted quantities (EQ)	E1
	Limited quantities (LQ)	5 kg
	Transport category (TC)	3
	Tunnel restriction code (TRC)	-
	Hazard identification No	90
	<b>Emergency Action Code</b>	<b>2Z</b>
	<b>• International Maritime Dangerous Goods Code (IMDG)</b>	



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UN number	3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Particulars in the shipper's declaration	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (Zinc iodide), 9, III
Class	9
Marine pollutant	yes (P) (hazardous to the aquatic environment)
Packing group	III
Danger label(s)	9 + "fish and tree"
	
Special provisions (SP)	274, 335, 966, 967, 969
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
EmS	F-A, S-F
Stowage category	A
<b>• International Civil Aviation Organization (ICAO-IATA/DGR)</b>	
UN number	3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s.
Particulars in the shipper's declaration	UN3077, Environmentally hazardous substance, solid, n.o.s., (Zinc iodide), 9, III
Class	9
Environmental hazards	yes (hazardous to the aquatic environment)
Packing group	III
Danger label(s)	9 + "fish and tree"
	
Special provisions (SP)	A97, A158, A179, A197
Excepted quantities (EQ)	E1
Limited quantities (LQ)	30 kg

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## SECTION 15: Regulatory information

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

#### National inventories

Substance is listed in the following national inventories:

Country	National inventories	Status
AU	AICS	substance is listed
CA	NDSL	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
JP	CSCL-ENCS	substance is listed
KR	KECI	substance is listed
NZ	NZIoC	substance is listed
TW	TCSI	substance is listed
US	TSCA	substance is listed

#### Legend

AICS	Australian Inventory of Chemical Substances
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
KECI	Korea Existing Chemicals Inventory
NDSL	Non-domestic Substances List (NDSL)
NZIoC	New Zealand Inventory of Chemicals
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

## SECTION 16: Other information

### 16.1 Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.1	Classification according to Regulation (EC) No 1272/2008 (CLP)	Classification acc. to GHS: This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC. This substance does not meet the criteria for classification.	yes
2.1		Classification acc. to GHS: change in the listing (table)	yes
2.2	Labelling according to Regulation (EC) No 1272/2008 (CLP)	Labelling GHS: not required	yes
2.2	Signal word: Warning	Signal word: not required	yes
2.2	Pictograms		yes
2.2		Pictograms: change in the listing (table)	yes
2.2	Hazard statements		yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.2		Hazard statements: change in the listing (table)	yes
2.2	Precautionary statements		yes
2.2	Precautionary statements - prevention		yes
2.2		Precautionary statements - prevention: change in the listing (table)	yes
2.2	Precautionary statements - response		yes
2.2		Precautionary statements - response: change in the listing (table)	yes
2.2	Precautionary statements - storage		yes
2.2		Precautionary statements - storage: change in the listing (table)	yes
2.2	Precautionary statements - disposal		yes
2.2		Precautionary statements - disposal: change in the listing (table)	yes
2.2	Labelling of packages where the contents do not exceed 125 ml: Signal word: Warning		yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
14.3	Transport hazard class(es)	Transport hazard class(es): class 9 hazard - miscellaneous dangerous substances and articles	yes
14.8	Marine pollutant: yes (hazardous to the aquatic environment)	Marine pollutant: yes (P) (hazardous to the aquatic environment)	yes
14.8	Packing group: III9 + "fish and tree"	Packing group: III	yes
14.8		Danger label(s): 9 + "fish and tree"	yes
14.8	Special provisions (SP): A97, A158, A179, A197, 274	Special provisions (SP): A97, A158, A179, A197	yes

**Abbreviations and acronyms**

Abbr.	Descriptions of used abbreviations
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
DGR	Dangerous Goods Regulations (see IATA/DGR)

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Abbr.	Descriptions of used abbreviations
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
vPvB	very Persistent and very Bioaccumulative

**Key literature references and sources for data**

- UN Recommendations on the Transport of Dangerous Good
- Dangerous Goods Regulations (DGR) for the air transport (IATA)
- International Maritime Dangerous Goods Code (IMDG)

**List of relevant phrases (code and full text as stated in chapter 2 and 3)**

not relevant.

**Disclaimer**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.