

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Iodine, Pure, DAB**

Print date: 12.04.2016

Product code: 3L-004

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Iodine, Pure, DAB

CAS No: 7553-56-2
Index No: 053-001-00-3
EC No: 231-442-4

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

Use as laboratory reagent

1.3. Details of the supplier of the safety data sheet

Company name: Waldeck GmbH & Co KG
Division Chroma
Street: Havixbecker Str. 62
Place: D-48161 Münster
Post-office box: 410180
D-48065 Münster
Telephone: +49(0)180/2247662 Telefax: +49(0)180/1247662
Responsible Department: Labor
Mo. – Do.: 08.00 – 17.00 Uhr, Fr.: 08.00 – 15.00 Uhr
1.4. Emergency telephone number: +49(0)180/2247662

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Acute toxicity: Acute Tox. 4

Acute toxicity: Acute Tox. 4

Hazardous to the aquatic environment: Aquatic Acute 1 (M-Factor = 1)

Hazard Statements:

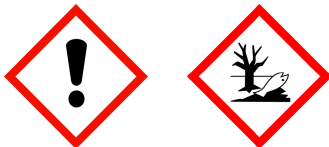
Harmful if inhaled.

Harmful in contact with skin.

Very toxic to aquatic life.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

iodine

Signal word: Warning**Pictograms:****Hazard statements**

H312+H332

Harmful in contact with skin or if inhaled.



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H400 Very toxic to aquatic life.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P391 Collect spillage.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Molecular weight: 253,8 g/mol

Hazardous components

| CAS No | Chemical name | | | Quantity |
|-----------|--|--------------|----------|----------|
| | EC No | Index No | REACH No | |
| | Classification according to Regulation (EC) No. 1272/2008 [CLP] | | | |
| 7553-56-2 | iodine | | | 100 % |
| | 231-442-4 | 053-001-00-3 | | |
| | Acute Tox. 4, Acute Tox. 4, Aquatic Acute 1 (M-Factor = 1); H332 H312 H400 | | | |

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air.

After contact with skin

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Call a doctor if you feel unwell.

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

No information available.

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

Treat symptomatically.



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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Hazardous combustion products

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid generation of dust.

Do not breathe dust.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

Advice on storage compatibility

No special measures are necessary.

Further information on storage conditions

storage temperature: at room temperature

7.3. Specific end use(s)

Use as laboratory reagent

SECTION 8: Exposure controls/personal protection



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8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|-----------|-----------|-----|-------------------|-----------|---------------|--------|
| 7553-56-2 | Iodine | - | - | | TWA (8 h) | WEL |
| | | 0.1 | 1.1 | | STEL (15 min) | WEL |

8.2. Exposure controls



Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------|----------|
| Physical state: | solid |
| Colour: | violet |
| Odour: | stinging |

| | |
|----------------------|-----|
| pH-Value (at 20 °C): | 5,4 |
|----------------------|-----|

Changes in the physical state

| | |
|--|----------------|
| Melting point: | 114 °C |
| Initial boiling point and boiling range: | 185 °C |
| Flash point: | not applicable |

Flammability

| | |
|--------|----------------|
| Solid: | Non-flammable. |
| Gas: | Non-flammable. |

Test method

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Explosive properties

not explosive according to EU A.14

Lower explosion limits:

not determined

Upper explosion limits:

not determined

Auto-ignition temperature

Solid:

not determined

Gas:

not applicable

Decomposition temperature:

not determined

Oxidizing properties

Not oxidizing.

Vapour pressure:

0,41 hPa

(at 25 °C)

Density (at 20 °C):

4,93 g/cm³

Bulk density (at 20 °C):

2100 kg/m³

Water solubility:

0,3 g/L

(at 20 °C)

Solubility in other solvents

not determined

Partition coefficient:

not determined

Viscosity / dynamic:

not applicable

Viscosity / kinematic:

not applicable

Vapour density:

not determined

Evaporation rate:

not determined

9.2. Other information

Solid content:

100,0 %

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

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

none

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information



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11.1. Information on toxicological effects

Acute toxicity

| CAS No | Chemical name | | | | |
|-----------|--------------------|------|-------------|---------|--------|
| | Exposure route | Dose | | Species | Source |
| 7553-56-2 | iodine | | | | |
| | oral | LD50 | 14000 mg/kg | Rat | RTECS |
| | dermal | ATE | 1100 mg/kg | | |
| | inhalative vapour | ATE | 11 mg/l | | |
| | inhalative aerosol | ATE | 1,5 mg/l | | |

Additional information on tests

Classification according to Regulation (EC) No. 1272/2008 [CLP]: dangerous health properties

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic organisms.

| CAS No | Chemical name | | | | |
|-----------|--------------------------|----------------|-----------|----------------------|-----------------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source |
| 7553-56-2 | iodine | | | | |
| | Acute fish toxicity | LC50 0,53 mg/l | 96 h | Onchorhynchus mykiss | ECOTOX Database |
| | Acute crustacea toxicity | EC50 1,63 mg/l | 48 h | Daphnia magna | ECOTOX Database |

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|-----------|---------------|---------|
| 7553-56-2 | iodine | 2,49 |

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.



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Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number:** UN 3495**14.2. UN proper shipping name:** IODINE**14.3. Transport hazard class(es):** 8**14.4. Packing group:** III

Hazard label: 8+6.1



Classification code: CT2

Special Provisions: 279

Limited quantity: 5 kg

Excepted quantity: E1

Transport category: 3

Hazard No: 86

Tunnel restriction code: E

Inland waterways transport (ADN)**14.1. UN number:** UN 3495**14.2. UN proper shipping name:** IODINE**14.3. Transport hazard class(es):** 8**14.4. Packing group:** III

Hazard label: 8+6.1



Classification code: CT2

Special Provisions: 279 802

Limited quantity: 5 kg

Excepted quantity: E1

Marine transport (IMDG)**14.1. UN number:** UN 3495**14.2. UN proper shipping name:** IODINE**14.3. Transport hazard class(es):** 8**14.4. Packing group:** III

Hazard label: 8+6.1



Special Provisions: 279



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Limited quantity: 5 kg
 Excepted quantity: E1
 EmS: F-A, S-B

Air transport (ICAO)

14.1. UN number: UN 3495
14.2. UN proper shipping name: IODINE
14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8+6.1



Special Provisions: A113 A803
 Limited quantity Passenger: 5 kg
 Passenger LQ: Y845
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 860
 IATA-max. quantity - Passenger: 25 kg
 IATA-packing instructions - Cargo: 864
 IATA-max. quantity - Cargo: 100 kg

14.6. Special precautions for user

Warning: Toxic. strongly corrosive.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Additional information

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
 Water contaminating class (D): 2 - water contaminating
 Skin resorption/Sensitization: Permeates easily through outer skin and causes poisoning.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information



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Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

| | |
|-----------|---|
| H312 | Harmful in contact with skin. |
| H312+H332 | Harmful in contact with skin or if inhaled. |
| H332 | Harmful if inhaled. |
| H400 | Very toxic to aquatic life. |

Further Information

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.