

**IODINE 0,05 mol/l (0,1 N)**

Date 5.12.2017

Previous date: 23.7.2012

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier****1.1.1 Commercial Product Name**

IODINE 0,05 mol/l (0,1 N)

**1.1.2 Product code**

FF066 50 ML;FF067 500 ML;FF447 1 L

**1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Recommended use**

MP0112 - Laboratory chemical: R&amp;D laboratory use

**1.3 Details of the supplier of the safety data sheet****1.3.1 Supplier**

Oy FF-Chemicals Ab

**Street address**

Teollisuustie 4

**Postcode and post office**

FI-90830 HAUKIPUDAS

Finland

**Telephone**

+358 8 5563 193

**Telefax**

+358 8 5563 194

**Business ID**

05851808

**Email**

ffc@ff-chemicals.fi

**1.4 Emergency telephone number****1.4.1 Telephone number, name and address**

Please contact the Emergency Centre in your own country.

**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

The product is not classified as hazardous according to EU legislation.

**2.2 Label elements**

-

**2.3 Other hazards**

-

**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Hazardous components****CAS/EC and  
Reg.number**

7553-56-2

**EINECS**

231-442-4

**Chemical name of the  
substance**

Iodine

**Concentration**

1.4 %

**Classification**Acute Tox. 4, H312; Acute Tox. 4,  
H332; Aquatic Acute 1, H400**3.3 Other information**

The full text of hazard statements are given in chapter 16.

**4. FIRST AID MEASURES****4.1 Description of first aid measures**

Evacuate the contaminated area. Wear personal protective equipment.

**4.1.2 Inhalation**

Move into fresh air.

**4.1.3 Skin contact**

Flush skin immediately with water.

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**4.1.4 Eye contact**

Rinse immediately with plenty of water also under eye lids. Contact an ophthalmologist if irritation persists.

**4.1.5 Ingestion**

Do NOT induce vomiting. If conscious, rinse mouth with water. Immediately call a POISON CENTER or doctor/physician.

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

N/A

**4.3 Indication of immediate medical attention and special treatment needed**

Contact a doctor if symptoms persist.

**5. FIREFIGHTING MEASURES****5.1 Extinguishing media****5.1.1 Suitable extinguishing media**

Water mist, carbon dioxide, dry powder or foam.

**5.1.2 Extinguishing media which must not be used for safety reasons**

N/A

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

May form hazardous fumes in case of fire.

**5.3 Advice for firefighters**

Wear chemical protective suit and pressurized respirator.

**6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Evacuate the contaminated area. Wear personal protective equipment.

**6.2 Environmental precautions**

Prevent entry into drains, sewers, soil or watercourses.

**6.3 Methods and materials for containment and cleaning up**

Absorb in suitable absorption material and collect for disposal. Clean surfaces and ventilate the area.

**6.4 Reference to other sections**

4, 8, 13.

**7. HANDLING AND STORAGE****7.1 Precautions for safe handling**

Prevent discharging of vapour and mist in workplace air. Avoid inhaling the product. Avoid contact with eyes, skin and clothing. Use fume hood or and personal protection equipment.

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

Keep container tightly closed. Store in a dry place. Keep cool. Store in a well-ventilated place.

**7.3 Specific end use(s)**

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters****8.1.1 Threshold limits**

7553-56-2 Iodine

0.1 ppm (15 min)

1.1 mg/m<sup>3</sup> (15 min)

**8.1.2 Other information on limit values**

Finnish limit values above.

**8.1.4 DNELs**

Iodine:

Workers, longtime systemic effects: inhalation: 70 µg/m<sup>3</sup>

Workers, longtime systemic effects: skin: 10 µg/kg/d

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### 8.1.5 PNECs

Iodine:  
Fresh water: 18.13 µg/l  
Sea water: 60.01 µg/l

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Ensure adequate ventilation. Use an effective exhaust equipment or in laboratory a fume cabin. Wash hands after working. Take off contaminated clothing, clean before reuse.

#### 8.2.2 Individual protection measures

##### 8.2.2.1 Respiratory protection

Respiratory protection when vapours or mist may be discharged in work place air.

##### 8.2.2.2 Hand protection

Protective gloves (EN 374).

##### 8.2.2.3 Eye/face protection

Goggles (European standard - EN 166).

##### 8.2.2.4 Skin protection

Laboratory coat, long sleeves.

#### 8.2.3 Environmental exposure controls

Prevent entry into drains, sewers, soil or watercourses.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Important Health Safety and Environmental Information

#### 9.1.1 Appearance

Liquid, dark brown.

#### 9.1.2 Odour

Acrid

#### 9.1.3 Odour threshold

No information available.

#### 9.1.4 pH

No information available.

#### 9.1.5 Melting point/freezing point

No information available.

#### 9.1.6 Initial boiling point and boiling range

No information available.

#### 9.1.7 Flash point

Not applicable.

#### 9.1.8 Evaporation rate

No information available.

#### 9.1.9 Flammability (solid, gas)

Not applicable.

#### 9.1.10 Explosive properties

##### 9.1.10.1 Lower explosion limit

Not applicable.

##### 9.1.10.2 Upper explosion limit

Not applicable.

#### 9.1.11 Vapour pressure

No information available.

#### 9.1.12 Vapour density

No information available.

#### 9.1.13 Relative density

1.03

#### 9.1.14 Solubility(ies)

##### 9.1.14.1 Water solubility

Soluble in water.

##### 9.1.14.2 Fat solubility (solvent - oil to be specified)

No information available.

#### 9.1.15 Partition coefficient: n-octanol/water

No information available.

#### 9.1.16 Auto-ignition temperature

Not applicable.

#### 9.1.17 Decomposition temperature

No information available.

#### 9.1.18 Viscosity

No information available.

#### 9.1.19 Explosive properties

No information available.

#### 9.1.20 Oxidising properties

No information available.

### 9.2 Other information

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**10. STABILITY AND REACTIVITY**

- 10.1 Reactivity**  
None under normal handling.
- 10.2 Chemical stability**  
Stable in normal conditions.
- 10.3 Possibility of hazardous reactions**  
Not reported when stored and handled according to regulations.
- 10.4 Conditions to avoid**  
Excess heat.
- 10.5 Incompatible materials**  
No information available.
- 10.6 Hazardous decomposition products**  
Hydrogen iodide.

**11. TOXICOLOGICAL INFORMATION**

- 11.1 Information on toxicological effects**  
Low acute toxicity.
- 11.1.1 Acute toxicity**  
Iodine:  
LC<sub>50</sub> = 4.588 mg/l (inhalation, rat, 4 h)  
LD<sub>50</sub> = 1425 - 2000 mg/kg (dermal, rabbit)
- 11.1.2 Irritation and corrosion**  
Not classified.
- 11.1.3 Sensitisation**  
Not classified.
- 11.1.4 Subacute, subchronic and prolonged toxicity**  
Not classified.
- 11.1.5 STOT-single exposure**  
Not classified.
- 11.1.6 STOT-repeated exposure**  
Iodine:  
NOAEL: 10 mg/kg/d (rat)  
NOAEL: 3 - 10 mg/l (drinking water, rat)  
LOAEL: 10 - 100 mg/l (drinking water, rat)
- 11.1.7 Aspiration hazard**  
Not classified.
- 11.1.8 Other information on acute toxicity**  
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**12. ECOLOGICAL INFORMATION**

- 12.1 Toxicity**
- 12.1.1 Aquatic toxicity**  
Iodine:  
Fish: LC<sub>50</sub> (96h) = 1.67 mg/l  
Daphnia: EC<sub>50</sub> (48h) = 550 - 590 µg/l  
Algae: EC<sub>50</sub> (72h) = 130 µg/l; NOEC (72h) = 25 µg/l  
Bacteria: EC<sub>50</sub> (3h) = 280 mg/l
- 12.1.2 Toxicity to other organisms**  
No information available.

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- 12.2 Persistence and degradability**
- 12.2.1 Biodegradation**  
No information available.
- 12.2.2 Chemical degradation**  
No information available.
- 12.3 Bioaccumulative potential**  
No information available.
- 12.4 Mobility in soil**  
No information available.
- 12.5 Results of PBT and vPvB assessment**  
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- 12.6 Other adverse effects**  
Prevent entry into drains, sewers, soil or watercourses.

**13. DISPOSAL CONSIDERATIONS**

- 13.1 Waste treatment methods**  
Dispose as hazardous waste. Obey local and national regulations.
- 13.2 Waste from residues / unused products**  
Disposal as laboratory chemical waste according to local and national regulations.

**14. TRANSPORT INFORMATION**

- 14.1 UN number** -
- 14.2 UN proper shipping name** -
- 14.3 Transport hazard class(es)** -
- 14.4 Packing group** -
- 14.5 Environmental hazards** -
- 14.6 Special precautions for users**  
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- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
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**15. REGULATORY INFORMATION**

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
REACH regulation, CLP regulation.
- 15.2 Chemical safety assessment**  
Chemical Safety Assessment/Reports (CSA/CSR) is not available for this substance.

**16. OTHER INFORMATION**

- 16.1 Additions, Deletions, Revisions**  
Changed classification according CLP harmonised.
- 16.3 Key literature references and sources for data**  
ECHA C&L Inventory.
- 16.4 Classification procedure**  
CLP regulation (1272/2008/EC)
- 16.5 List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements**
- |      |                               |
|------|-------------------------------|
| H312 | Harmful in contact with skin. |
| H332 | Harmful if inhaled.           |
| H400 | Very toxic to aquatic life.   |

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**16.6 Training advice**

Handle with good practice and according to safety instructions.

**16.7 Recommended restrictions**

No special restrictions.

**16.8 Additional information available from:**

Oy FF-Chemicals Ab, Finland, tel. +358 8 5563 193  
ffc@ff-chemicals.fi

The information in this safety data sheet are according to our best knowledge correct on the day it was composed, and may not be regarded as warranty or quality specification.