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

Date 8.11.2021 Previous date: 5.12.2017

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

Laboratory chemical

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	EINECS	Chemical name of the substance	Concentration	Classification
7553-56-2	231-442-4	Iodine	1.4 %	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.

4.1.4 Eye contact
Rinse immediately with plenty of water also under eye lids. Contact an ophthalmogist 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^3 (15 min)
		Can be absorbed through the skin	

8.1.2 Other information on limit values
Finnish limit values above.

8.1.4 DNELs

Iodine:
Workers, longtime systemic effects: inhalation: 70 µg/m³
Workers, longtime systemic effects: skin: 10 µg/kg/d

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

Prtotective 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 storaged 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

Not classified.

11.1.1 Acute toxicity

Iodine:
LC_{50} = 4.588 mg/l (inhalation, rat, 4 h)
LD_{50} = 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_{50} (96h) = 1.67 mg/l
Daphnia: EC_{50} (48h) = 550 - 590 mµ/l
Algae: EC_{50} (72h) = 130 µg/l; NOEC (72h) = 25 µg/l
Bacteria: EC_{50} (3h) = 280 mg/l

12.1.2 Toxicity to other organisms
No information available.

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
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
-

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
Occupational exposure limit values

15.2 Chemical safety assessment
Chemical Safety Assessment/Reports (CSA/CSR) is nor available for this substance.

16. OTHER INFORMATION

16.1 Additions, Deletions, Revisions
General update

16.3 Key literature references and sources for data
ECHA C&L Inventory
Occupational exposure limit values

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.

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.