

**Lugol Solution Concentrated**

Date 8.2.2013

Previous date: -

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

Lugol Solution Concentrated

**1.1.2 Product code**

FF690 500 ML

**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

**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.

**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

**Chemical name of the substance**

Iodine

**Concentration Classification**

4 %

Xn; R20/21;N; R50;  
Acute Tox. 4, H332 ; Acute Tox. 4,  
H312 ; Aquatic Acute 1, H400**3.3 Other information**

The texts of R and H phrases can be read in chapter 16.

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

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**4.1.2 Inhalation**

Move the exposed to fresh air.

**4.1.3 Skin contact**

Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing.

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- 4.1.4 Eye contact**  
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Seek medical advice if symptoms persist.
- 4.1.5 Ingestion**  
Rinse mouth. Seek medical advice if symptoms persist.
- 4.2 Most important symptoms and effects, both acute and delayed**  
No information available.
- 4.3 Indication of immediate medical attention and special treatment needed**  
If feeling unwell, seek medical advice.

**5. FIREFIGHTING MEASURES**

Non-combustible.

- 5.1 Extinguishing media**
- 5.1.1 Suitable extinguishing media**  
Extinguishing media should be suitable to surrounding materials.
- 5.2 Special hazards arising from the substance or mixture**  
May liberate hazardous fumes or vapour in case of fire.
- 5.3 Advice for firefighters**  
Fire fighters have to wear a respirator.

**6. ACCIDENTAL RELEASE MEASURES**

- 6.1 Personal precautions, protective equipment and emergency procedures**  
Evacuate the area. Wear personal protective equipment.
- 6.2 Environmental precautions**  
Do not spill in sewers.
- 6.3 Methods and materials for containment and cleaning up**  
Absorb in appropriate material. Pick up in containers for waste treatment. Clean contaminated surfaces. Ventilate the area.
- 6.4 Reference to other sections**  
8, 13.

**7. HANDLING AND STORAGE**

- 7.1 Precautions for safe handling**  
Obey good laboratory practices, good hygiene and safety guidelines.
- 7.2 Conditions for safe storage, including any incompatibilities**  
Keep container tightly closed.
- 7.3 Specific end use(s)**

**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) |
|           |        | skin             |                                |
- 8.1.2 Other information on limit values**  
The values above are Finnish OEL values.
- 8.1.3 Limit values in other countries**  
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- 8.1.4 DNELs**  
N/I
- 8.1.5 PNECs**  
N/I
- 8.2 Exposure controls**
- 8.2.1 Appropriate engineering controls**  
Obey good laboratory practices, good hygiene and safety guidelines. Adequate ventilation needed. Wash hands after handling. Immediately take off contaminated clothing and wash before reuse.
- 8.2.2 Individual protection measures**
- 8.2.2.1 Respiratory protection**  
Respirator if vapours or aerosols are escaped in air.
- 8.2.2.2 Hand protection**  
Protective gloves complying with EN 374.
- 8.2.2.3 Eye/face protection**  
Protective goggles EN 166.
- 8.2.2.4 Skin protection**  
Working clothes.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- 9.1 Important Health Safety and Environmental Information**
- 9.1.1 Appearance**  
Liquid, brown.
- 9.1.2 Odour** odourless
- 9.1.3 Odour threshold** Not applicable.
- 9.1.4 pH** N/I
- 9.1.5 Melting point/freezing point** N/I
- 9.1.6 Initial boiling point and boiling range** N/I
- 9.1.7 Flash point** Not applicable.
- 9.1.8 Evaporation rate** N/I
- 9.1.9 Flammability (solid, gas)** Not flammable.
- 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** N/I
- 9.1.12 Vapour density** N/I
- 9.1.13 Relative density** N/I
- 9.1.14 Solubility(ies)**
- 9.1.14.1 Water solubility** Freely soluble in water.
- 9.1.15 Partition coefficient: n-octanol/water** N/I
- 9.1.16 Auto-ignition temperature** Not applicable.
- 9.1.17 Decomposition temperature** N/I
- 9.1.18 Viscosity** N/I
- 9.1.19 Explosive properties** -
- 9.1.20 Oxidising properties** -
- 9.2 Other information**

**10. STABILITY AND REACTIVITY**

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- 10.1 Reactivity**  
No information available.
- 10.2 Chemical stability**  
Stable in recommended handling and storage conditions.
- 10.3 Possibility of hazardous reactions**  
No information available.
- 10.4 Conditions to avoid**  
No information available.
- 10.5 Incompatible materials**  
No information available.
- 10.6 Hazardous decomposition products**  
No information available.

**11. TOXICOLOGICAL INFORMATION**

- 11.1 Information on toxicological effects**
- 11.1.1 Acute toxicity**  
No hazard classification.
- 11.1.2 Irritation and corrosion**  
No hazard classification.
- 11.1.3 Sensitisation**  
No hazard classification.
- 11.1.4 Subacute, subchronic and prolonged toxicity**  
No hazard classification.
- 11.1.5 STOT-single exposure**  
No hazard classification.
- 11.1.6 STOT-repeated exposure**  
No hazard classification.
- 11.1.7 Aspiration hazard**  
Not classified.

**12. ECOLOGICAL INFORMATION**

- 12.1 Toxicity**
- 12.1.1 Aquatic toxicity**  
No hazard classification.
- 12.2 Persistence and degradability**
- 12.2.1 Biodegradation**  
No information available.
- 12.3 Bioaccumulative potential**  
No information available.
- 12.4 Mobility in soil**  
Mobile, water solution.
- 12.5 Results of PBT and vPvB assessment**  
No information available.
- 12.6 Other adverse effects**

**13. DISPOSAL CONSIDERATIONS**

- 13.1 Waste treatment methods**  
Dispose of in accordance with local regulations.

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**14. TRANSPORT INFORMATION**

	<b>Land transport ADR/RID</b>	<b>Sea transport IMDG/IMO</b>	<b>Air transport ICAO/IATA</b>
<b>14.1 UN number</b>			
<b>14.2 UN proper shipping name</b>			
<b>14.3 Transport hazard class(es)</b>			
<b>14.4 Packing group</b>			
<b>14.5 Environmental hazards</b>			
<b>Other information</b>			

**14.6 Special precautions for users****14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code****15. REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
REACH regulation, CLP regulation (EC).  
Finnish Occupational Exposure Limit values.

**15.2 Chemical safety assessment**

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**16. OTHER INFORMATION****16.3 Key literature references and sources for data**

Harmonised classification according to CLP regulation.

**16.5 List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements**

R20/21 Harmful by inhalation and in contact with skin.

R50 Very toxic to aquatic organisms.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

H400 Very toxic to aquatic life.

**16.6 Training advice**

Obey good laboratory practices, good hygiene and safety guidelines.

**16.8 Additional information available from:**

Oy FF-Chemicals Ab, Finland, Tel: 0358 (0)8 5563; ffc@ff-chemicals.fi

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.