

# Material Safety Data Sheet

## IoLiLyte SP-382+

Revision Date: 01/10/2011

Date Issued: 010/5/2017

### 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

<b>Product name</b>	IoLiLyte SP-382
<b>Product code</b>	ES-0002-V18
<b>Use of the mixture</b>	Electrolyte for dye-sensitised solar cells
<b>Supplier</b>	IoLiTec Ionic Liquids Technologies GmbH Salzstrasse 184 D – 74076 Heilbronn Germany
<b>Telephone</b>	+49 (0)7131-89839-0
<b>Fax</b>	+49 (0)7131-89839-109
<b>Emergency telephone</b>	+49 (0) 176 84850874
<b>Email</b>	msds@iolitec.de

### 2 HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Caution! Substance not yet fully tested. Risks cannot be excluded if the product is handled inappropriately. For laboratory use only!

##### Classification (67/548/EEC or 1999/45/EC)

Caution! Substance not yet fully tested. Risks cannot be excluded if the product is handled inappropriately. For laboratory use only!

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### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Substance not yet fully tested.

#### *Hazard statements*

#### **H-phrases**

Substance not yet fully tested.

#### *Precautionary statements*

#### **P phrases**

P262: Do not get in eyes, on skin, or on clothing  
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection  
P305 + P351 + P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.  
P313: Get medical advice/attention

#### Labelling (67/548/EEC or 1999/45/EC)

Substance not yet fully tested.

#### **Risk phrases**

Not fully tested substance.

#### **Safety phrases**

S: 24/25 Avoid contact with skin and eyes.  
S: 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S: 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S:28, 2 After contact with skin, wash immediately with plenty of water and liquid soap.

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### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name	CAS	Contents	Health(Class)	Risk(R/No.)
1-Methyl-3-propylimidazolium iodide	119171-18-5	~ 20 %	Substance not yet fully tested!	
Iodine	7553-56-2	~ 0,02 %	Xn, N	R 20/21, 50
N-Alkylbenzimidazole	42032-46-2	~ 11 %	Xi	R 36/37/38
Guanidine thiocyanate	593-84-0	~ 1%	Xn	R 20/21/22, 32
3-Methoxypropionitrile	110-67-8	~ 67 %	Xi	R 36/37/38

### 4 FIRST AID MEASURES

<b>General</b>	Contaminated clothing should be removed and washed before being reused.
<b>Inhalation</b>	Move the exposed person to fresh air at once. If respiratory problems, provide artificial respiration/oxygen.
<b>Ingestion</b>	Immediately rinse mouth and provide fresh air. Do not induce vomiting. Get medical attention immediately.
<b>Skin</b>	Wash the skin immediately with soap and water.
<b>Eyes</b>	Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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### 5 FIRE FIGHTING MEASURES

**Extinguishing media**

Use: Water spray, fog or mist. Carbon dioxides (CO<sub>2</sub>). Dry chemicals, sand, dolomite etc.

**Special fire fighting procedures**

Avoid water in straight hose stream, will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control.

**Unusual fire & explosion hazards**

Fire causes formation of toxic gases.

**Protective measures in fire**

Wear self-contained breathing apparatus as combustion may produce hazardous fumes.

### 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions during spill**

Wear protective clothing and avoid inhalation of vapor, skin or eye contact.

**Precautions to protect environment**

Avoid washing into water courses. Avoid contaminating public drains or water supply.

**Spill cleanup methods**

Avoid contact with skin or inhalation of spillage, dust or vapor, Avoid dust formation. Collect and reclaim or dispose in sealed containers in license waste. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

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### 7 HANDLING AND STORAGE

**Usage precautions**

Keep away from heat, sparks and open flame.  
Do not use in confined spaces without adequate ventilation and/or respirator.

**Storage precautions**

Store at moderate temperatures in dry, well ventilated area.

**Storage criteria**

Chemical storage.

### 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Protective equipment**

Safety goggles. Chemical resistant gloves.  
Protective clothing.

**Process control measures**

Provide eyewash station and safety shower.  
Use engineering controls to reduce air contamination to permissible exposure levels.

**Ventilation**

Provide adequate general and local exhaust ventilation.

**Respirators**

Use high efficiency particulate respirator with appropriate filter.

**Other protection**

Wear overalls and industrial shoes.

### 9 PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**

Liquid.

**Color**

Deeply colored.

**Odor/taste**

Not available.

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### 10 STABILITY AND REACTIVITY

<b>Stability</b>	No particular stability concerns.
<b>Conditions to avoid</b>	Avoid contact to strong oxidizers, bases and acids.
<b>Hazardous Decomposition Products</b>	High temperatures generate: Corrosive gases/vapor/fumes of: Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO). Nitrous gases (NO <sub>x</sub> ).

### 11 TOXICOLOGICAL INFORMATION

<b>Ingestion</b>	Not available.
<b>Skin</b>	Not available.
<b>Eyes</b>	Not available.

**Data on the toxicity of this mixture are not available. Hazardous properties cannot be excluded.**

### 12 ECOLOGICAL INFORMATION

<b>Environmental hazards</b>	Avoid washing into water courses. Avoid contaminating public drains or water supply.
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### 13 DISPOSAL CONSIDERATIONS

<b>Disposal method</b>	Contact specialist disposal companies. Dispose of in accordance with Local Authority
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requirements. Recover and reclaim or recycle, if practical.

### 14 TRANSPORT INFORMATION

<b>General</b>	Not classified as dangerous for transport purposes.
<b>UN No.</b>	0
<b>Road transport notes</b>	Not classified as dangerous for road transport.
<b>Rail transport notes</b>	Not classified as dangerous for rail transport.
<b>Sea transport notes</b>	Not classified as dangerous for sea transport.
<b>Air transport notes</b>	Not classified as dangerous for air transport.

### 15 REGULATORY INFORMATION

<b>Label for supply</b>	Substance not yet fully tested.
<b>P phrases</b>	
P262:	Do not get in eyes, on skin, or on clothing
P280:	Wear protective gloves/ protective clothing/ eye protection/ face protection
P305 + P351 + P338:	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P313:	Get medical advice/attention
<b>Safety phrases</b>	
S: 24/25	Avoid contact with skin and eyes.
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S: 36/37/39

Wear suitable protective clothing, gloves and eye/face protection.

S:28,2

After contact with skin, wash immediately with plenty of water and liquid soap.

### Country specific information

**Germany**

WGK: 3

(Self-Classification)

### 16 OTHER INFORMATION

#### DISCLAIMER

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