

Material Safety Data Sheet

IoLiLyte SI-237

Revision Date: 01/10/2011

Date Issued: 10/5/2017

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

Product name	IoLiLyte SI-237
Product code	ES-0005
Use of the mixture	Electrolyte for dye-sensitised solar cells
Supplier	IoLiTec Ionic Liquids Technologies GmbH Salzstrasse 184 D – 74076 Heilbronn Germany
Telephone	+49 (0)7131-89839-0
Fax	+49 (0)7131-89839-109
Emergency telephone	+49 (0) 176 84850874
Email	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!

Material Safety Data Sheet

IoLiLyte SI-237

Revision Date: 01/10/2011

Date Issued: 10/5/2017

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.

Material Safety Data Sheet

IoLiLyte SI-237

Revision Date: 01/10/2011

Date Issued: 10/5/2017

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name	CAS	Contents	Health(Class)	Risk(H/No.)
Iodine	7553-56-2	0.2 M		H400,H312,H332
N-Methylbenzimidazole	1632-83-3	0.5 M		H335,H319,H315
Guanidine thiocyanate	593-84-0	0.1 M		H302,H312,H332, H412
1-Ethyl-3-methylimidazolium thiocyanate	331717-63-6	~30%		Substance not yet fully tested!
1-Ethyl-3-methylimidazolium iodide	35935-34-3	~60%		Substance not yet fully tested!

4 FIRST AID MEASURES

General	Contaminated clothing should be removed and washed before being reused.
Inhalation	Move the exposed person to fresh air at once. If respiratory problems, provide artificial respiration/oxygen.
Ingestion	Immediately rinse mouth and provide fresh air. Do not induce vomiting. Get medical attention immediately.
Skin	Wash the skin immediately with soap and water.
Eyes	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.

Material Safety Data Sheet

IoLiLyte SI-237

Revision Date: 01/10/2011

Date Issued: 10/5/2017

5 FIRE FIGHTING MEASURES

Extinguishing media

Use: Water spray, fog or mist. Carbon dioxides (CO₂). 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.

Material Safety Data Sheet

IoLiLyte SI-237

Revision Date: 01/10/2011

Date Issued: 10/5/2017

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.

Material Safety Data Sheet

IoLiLyte SI-237

Revision Date: 01/10/2011

Date Issued: 10/5/2017

10 STABILITY AND REACTIVITY

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

11 TOXICOLOGICAL INFORMATION

Ingestion	Not available.
Skin	Not available.
Eyes	Not available.

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

12 ECOLOGICAL INFORMATION

Environmental hazards	Avoid washing into water courses. Avoid contaminating public drains or water supply.
------------------------------	--

13 DISPOSAL CONSIDERATIONS

Disposal method	Contact specialist disposal companies. Dispose of in accordance with Local Authority
------------------------	--

Material Safety Data Sheet

IoLiLyte SI-237

Revision Date: 01/10/2011

Date Issued: 10/5/2017

requirements. Recover and reclaim or recycle, if practical.

14 TRANSPORT INFORMATION

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

15 REGULATORY INFORMATION

Label for supply	Substance not yet fully tested.
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
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.

Material Safety Data Sheet

IoLiLyte SI-237

Revision Date: 01/10/2011

Date Issued: 10/5/2017

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

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPOSED TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. IOLITEC SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. THIS INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR ANY PROCESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE.

IN NO WAY SHALL IOLITEC BE LIABLE FOR ANY CLAIMS, LOSSES OR DAMAGES OF ANY THIRD PARTY OR FOR THE LOST PROFITS OR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES, HOWSOEVER ARISING, EVEN IF THE COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.