

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Iodine solution, 1 N (0,5 mol/l), 250 ml**

Print date: 14.04.2015

Product code: 9991426

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Iodine solution, 1 N (0,5 mol/l), 250 ml

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Laboratory chemicals

**1.3. Details of the supplier of the safety data sheet****Seller**

Company name: CONATEX-DIDACTIC Lehrmittel GmbH  
Street: Im Forstgarten 1  
Place: D-66459 Kirkel  
Internet: www.conatex.com

**Supplier**

Company name: Carbolution Chemicals GmbH  
Street: Im Stadtwald, Gebäude A1.2  
Place: D-66123 Saarbrücken  
Contact person: Dr. Michael Bauer Telephone: +49 (0)681 302-71232  
e-mail: michael.bauer@carbolution-chemicals.de  
Internet: www.carbolution-chemicals.de

**1.4. Emergency telephone number:** +49 (0)681 302-71232**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: F - Highly flammable

R phrases:  
Highly flammable.**Classification according to Regulation (EC) No. 1272/2008 [CLP]**Hazard categories:  
Flammable liquid: Flam. Liq. 2  
Hazard Statements:  
Highly flammable liquid and vapour.**2.2. Label elements**

Signal word: Danger  
Pictograms: GHS02

**Hazard statements**

H225 Highly flammable liquid and vapour.

**Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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Ground/bond container and receiving equipment.

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Take precautionary measures against static discharge.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
200-578-6	ethanol, ethyl alcohol	85 - < 90 %
64-17-5	F - Highly flammable R11	
603-002-00-5	Flam. Liq. 2; H225	
231-442-4	iodine	10 - < 15 %
7553-56-2	Xn - Harmful, N - Dangerous for the environment R20/21-50	
053-001-00-3	Acute Tox. 4, Acute Tox. 4, Aquatic Acute 1 (M-Factor = 1); H332 H312 H400	

Full text of R-, H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### After inhalation

Provide fresh air.

##### After contact with skin

Wash with plenty of water. Change contaminated clothing.

##### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

##### After ingestion

Rinse mouth immediately and drink plenty of water.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Water. Carbon dioxide (CO<sub>2</sub>). Foam. Extinguishing powder.

#### 5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air.

#### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

#### Additional information

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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#### SECTION 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation.

##### 6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion hazard.

##### 6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

#### SECTION 7: Handling and storage

##### 7.1. Precautions for safe handling

###### Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used.

###### Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapours may form explosive mixtures with air.

##### 7.2. Conditions for safe storage, including any incompatibilities

###### Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition.

- No smoking.

###### Advice on storage compatibility

Do not store together with: Material, rich in oxygen, oxidizing.

#### SECTION 8: Exposure controls/personal protection

##### 8.1. Control parameters

###### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
7553-56-2	Iodine	-	-		TWA (8 h)	WEL
		0.1	1.1		STEL (15 min)	WEL

##### 8.2. Exposure controls

###### Protective and hygiene measures

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

###### Eye/face protection

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

###### Hand protection

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

###### Skin protection

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

###### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. If

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technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	dark violet
Odour:	No data available

#### Test method

pH-Value: No data available

#### Changes in the physical state

Initial boiling point and boiling range: No data available

Sublimation point: No data available

Softening point: No data available

Flash point: No data available

#### Flammability

Solid: No data available

Gas: No data available

Lower explosion limits: No data available

Upper explosion limits: No data available

Ignition temperature: No data available

#### Auto-ignition temperature

Solid: No data available

Gas: No data available

Vapour pressure: No data available

Vapour pressure: No data available

Density: No data available

Water solubility: No data available

Partition coefficient: No data available

Viscosity / dynamic: No data available

Viscosity / kinematic: No data available

Flow time: No data available

Vapour density: No data available

Evaporation rate: No data available

Solvent separation test: No data available

Solvent content: No data available

### 9.2. Other information

Solid content: No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available

### 10.3. Possibility of hazardous reactions

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No data available

#### **10.4. Conditions to avoid**

Keep away from heat. Ignition hazard.

#### **10.5. Incompatible materials**

Oxidizing agents, strong.

#### **10.6. Hazardous decomposition products**

No data available

## SECTION 11: Toxicological information

### **11.1. Information on toxicological effects**

#### **Toxicokinetics, metabolism and distribution**

Toxicological data are not available.

#### **Acute toxicity**

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
64-17-5	ethanol, ethyl alcohol				
	oral	LD50	6200 mg/kg	Ratte	
	inhalative (4 h) vapour	LC50	95,6 mg/l	Ratte	
7553-56-2	iodine				
	oral	LD50	14000 mg/kg	Ratte	
	dermal	ATE	1100 mg/kg		
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		

#### **Irritation and corrosivity**

No data available

#### **Sensitising effects**

No data available

#### **Severe effects after repeated or prolonged exposure**

No data available

#### **Carcinogenic/mutagenic/toxic effects for reproduction**

Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

#### **Specific effects in experiment on an animal**

No data available

#### **Additional information on tests**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

#### **Practical experience**

#### **Observations relevant to classification**

No data available

## SECTION 12: Ecological information

### **12.1. Toxicity**

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CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h]   [d]	Species	Source
64-17-5	ethanol, ethyl alcohol					
	Acute crustacea toxicity	EC50 mg/l	9268 - 14221	48 h	Daphnia magna	
7553-56-2	iodine					
	Acute fish toxicity	LC50	0,53 mg/l	96 h	Onchorhynchus mykiss	
	Acute crustacea toxicity	EC50	1,63 mg/l	48 h	Daphnia magna	

#### 12.2. Persistence and degradability

No data available

#### 12.3. Bioaccumulative potential

No data available

#### **Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
64-17-5	ethanol, ethyl alcohol	-0,31
7553-56-2	iodine	2,49

#### 12.4. Mobility in soil

No data available

#### 12.5. Results of PBT and vPvB assessment

No data available

#### 12.6. Other adverse effects

No data available

#### **Further information**

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### **Advice on disposal**

Dispose of waste according to applicable legislation.

##### **Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

##### **Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

##### **Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances  
Classified as hazardous waste.

##### **Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

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**SECTION 14: Transport information****Land transport (ADR/RID)**

<b>14.1. UN number:</b>	UN1170
<b>14.2. UN proper shipping name:</b>	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3
Classification code:	F1
Special Provisions:	144 601
Limited quantity:	1 L
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

**Other applicable information (land transport)**

E2

**Inland waterways transport (ADN)**

<b>14.1. UN number:</b>	UN1170
<b>14.2. UN proper shipping name:</b>	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3
Classification code:	F1
Special Provisions:	144 601
Limited quantity:	1 L

**Other applicable information (inland waterways transport)**

E2

**Marine transport (IMDG)**

<b>14.1. UN number:</b>	UN1170
<b>14.2. UN proper shipping name:</b>	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3
Special Provisions:	144
Limited quantity:	1 L
EmS:	F-E, S-D

**Other applicable information (marine transport)**

E2

**Air transport (ICAO)**

<b>14.1. UN number:</b>	UN1170
<b>14.2. UN proper shipping name:</b>	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3
Special Provisions:	A3 A58 A180
Limited quantity Passenger:	1 L

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IATA-packing instructions - Passenger:	353
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

**Other applicable information (air transport)**E2  
: Y341**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

2004/42/EC (VOC): 87,4 %

**Additional information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

**National regulatory information**

Water contaminating class (D): 2 - water contaminating

**SECTION 16: Other information****Relevant R-phrases (Number and full text)**

11	Highly flammable.
20/21	Harmful by inhalation and in contact with skin.
50	Very toxic to aquatic organisms.

**Relevant H- and EUH-phrases (Number and full text)**

H225	Highly flammable liquid and vapour.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)