

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Diacetylglyoxime solution, 100 ml**

Print date: 14.04.2015

Product code: 9991267

Page 1 of 8

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

Diacetylglyoxime solution, 100 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.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Diacetylglyoxime solution, 100 ml

Print date: 14.04.2015

Product code: 9991267

Page 2 of 8

## 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	95 - < 100 %
64-17-5	F - Highly flammable R11	
603-002-00-5	Flam. Liq. 2; H225	
202-420-1	Dimethylglyoxime	1 - < 5 %
95-45-4	F - Highly flammable, T - Toxic R11-25	
	Flam. Sol. 2, Acute Tox. 3; H228 H301	

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.

## SECTION 6: Accidental release measures

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Diacetylglyoxime solution, 100 ml

Print date: 14.04.2015

Product code: 9991267

Page 3 of 8

#### **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

#### **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 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).

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Diacetylglyoxime solution, 100 ml

Print date: 14.04.2015

Product code: 9991267

Page 4 of 8

#### SECTION 9: Physical and chemical properties

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

Physical state:	liquid
Colour:	colourless
Odour:	No data available

##### Test method

pH-Value:	No data available
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##### **Changes in the physical state**

Initial boiling point and boiling range:	78 °C
Sublimation point:	No data available
Softening point:	No data available
Flash point:	14 °C

##### **Flammability**

Solid:	No data available
Gas:	No data available

Lower explosion limits:	3,5 vol. %
Upper explosion limits:	15 vol. %
Ignition temperature:	425 °C

##### **Auto-ignition temperature**

Solid:	No data available
Gas:	No data available

Vapour pressure: (at 20 °C)	59 hPa
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Vapour pressure:	No data available
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Density:	0,79 g/cm <sup>3</sup>
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Water solubility:	No data available
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Partition coefficient:	No data available
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Viscosity / dynamic:	No data available
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Viscosity / kinematic:	No data available
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Flow time:	No data available
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Vapour density:	No data available
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Evaporation rate:	No data available
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Solvent separation test:	No data available
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Solvent content:	No data available
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##### 9.2. Other information

Solid content:	No data available
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#### SECTION 10: Stability and reactivity

##### 10.1. Reactivity

No data available

##### 10.3. Possibility of hazardous reactions

No data available

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Diacetylglyoxime solution, 100 ml**

Print date: 14.04.2015

Product code: 9991267

Page 5 of 8

**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	
95-45-4	Dimethylglyoxime				
	oral	ATE	100 mg/kg		

**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**

No data available

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Diacetylglyoxime solution, 100 ml

Print date: 14.04.2015

Product code: 9991267

Page 6 of 8

CAS No	Chemical name	Method	Dose	[h]   [d]	Species	Source
64-17-5	ethanol, ethyl alcohol					
	Acute crustacea toxicity	EC50 mg/l	9268 - 14221	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

#### **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.

### SECTION 14: Transport information

#### **Land transport (ADR/RID)**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Diacetylglyoxime solution, 100 ml

Print date: 14.04.2015

Product code: 9991267

Page 7 of 8

**14.1. UN number:** UN1170  
**14.2. UN proper shipping name:** ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** 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)**

**14.1. UN number:** UN1170  
**14.2. UN proper shipping name:** ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** 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)**

**14.1. UN number:** UN1170  
**14.2. UN proper shipping name:** ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** 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)**

**14.1. UN number:** UN1170  
**14.2. UN proper shipping name:** ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3  
 Special Provisions: A3 A58 A180  
 Limited quantity Passenger: 1 L  
 IATA-packing instructions - Passenger: 353  
 IATA-max. quantity - Passenger: 5 L  
 IATA-packing instructions - Cargo: 364  
 IATA-max. quantity - Cargo: 60 L

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Diacetylglyoxime solution, 100 ml**

Print date: 14.04.2015

Product code: 9991267

Page 8 of 8

**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): 99 % (782,1 g/l)

**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.  
25 Toxic if swallowed.**Relevant H- and EUH-phrases (Number and full text)**H225 Highly flammable liquid and vapour.  
H228 Flammable solid.  
H301 Toxic if swallowed.

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