

# Safety Data Sheet

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According to Regulation (EC) No 1907/2006

Issue date : April 04, 2012

Revision # 1 date : March 20, 2020

## 1: Identification of the substance / mixture and of the company / undertaking

### 1.1 Identification of the substance :

Trade name:	Urea
Chemical name:	Urea
Identification number:	CAS No: 57-13-6
Registration number:	01-2119463277-33-0007

### 1.2 Use of the substance :

Identified uses:	Use in the pharmaceutical, cosmetic and food industry. Food additive. As an ingredient for nutrient solutions in biochemistry
Unrecommended uses:	---

### 1.3 Company/undertaking identification :

#### Macco Organiques, s. r.o.

Zahradní 46c, 792 01 Bruntál, Czech Republic

IČ : 26819210 , phone: +420 – 555 – 530 334

SDS provider's contact: Jaroslav Zavadil , phone: +420 – 555 – 530 340, [jaroslav.zavadil@macco.cz](mailto:jaroslav.zavadil@macco.cz)

### 1.4 Emergency telephone:

The first aid details may be consulted with toxicological information centre (TIS): Job-related illness clinic, Na Bojišti 1, 128 08 Praha 2, tel. 2 24 91 92 93 or 2 24 91 54 02. Permanent poisoning informations.

## 2: Hazard identification

The substance is **NOT** classified as dangerous according to Directive 1272/2008/ES.

### 2.1 Classification of the substance:

Acc. to Directive 1272/2008/ES	---
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#### The most important adverse physicochemical, human health and environmental effects and symptoms :

Slightly water endangering. No specific risks known.

The information shown on the label shall be given under heading 15.

### 2.2 Information on the label:

Hazard pictogram	---	Signal word	---
Hazard statements	---		
Precautionary statements	---		
Additional information on label	none		

### 2.3 Other dangerousness:

Substance is NOT classified as PBT or vPvB.

## 3: Composition / information on ingredients

### 3.1 Substance

#### 3.1.1 Constituent

Chemical identity	Index No.	CAS	EINECS	concentration	classification list number
Urea	none	57-13-6	200-315-5	99 - 100%	So far none

#### 3.1.2 Impurities, stabilizers,

Chemical identity	Index No.	CAS	EINECS	concentration	classification list number
none	---	---	---	---	---

## 4: First aid measures

In all cases provide the physical and mental rest and avoid of getting chilled. In case of health problems or doubts inform physician and provide him with the information contained in this safety data sheet. Never pass a medication to a unconscious person. Maintain personal safeness during rescue operation.

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## 4.1 First aid description:

### **If inhaled:**

Stop exposition, move the afflicted person to the fresh air, keep him warm and at rest. If symptoms persist seek medical attention. In case of unconsciousness start with resuscitation (artificial respiration, cardiac massage) and call for medical attention.

### **In the event of skin contact:**

Remove contaminated clothes and footwear. Wash of any skin contamination with cool water and soap. Launder clothes before re-use.

### **In the event of eye contact:**

Remove contact lenses if present. Rinse with a small amount of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical attention. **Do not use neutralization solution!**

### **If swallowed:**

Wash out mouth with water and give plenty of water to drink (at least 300 ml). Do not induce vomiting. When vomiting, maintain supervision until the help arrives.

## 4.2 The most important acute and belated symptoms and effects:

Not specified

## 4.3 Immediate medical help instruction and special treatment:

Not specified

## 5: Fire fighting measures

### 5.1 Extinguishing media:

#### **Suitable extinguishing media:**

All extinguishing media are allowed, select the appropriate extinguishing media depending on the surrounding fire and environment.

#### **Not suitable extinguishing media :**

Strong water jet

### 5.2 Specific hazards :

Fire may cause evolution of  $\text{NH}_3$  The substance mentioned can be released if the product is involved in a fire.

### 5.3 Special protective actions for fire-fighters:

In case of fire use respirator with protective filter against ammonia and protective clothing.

## 6: Accidental release measures

### 6.1 Personal precautions:

Use personal safety working clothes – section 8. Prevent from skin and eye contact. Other safety precautions – section 7.

### 6.2 Environmental precautions:

Prevent from escape to watercourses and soil and from their contamination. If there is no way to avoid it, immediately inform appropriate authority ( police and firemen).

### 6.3 Methods for cleaning up:

Clean up contamination/spillages as soon as they occur. Collect as much as possible in a suitable clean container, preferably for re-use, otherwise for disposal (according section 13). Wash the spillage area with large quantities of water. When packaging is damaged, replace the amount into a new packaging with proper marking.

### 6.4 Other sections references:

Also follow the regulations in sections 8 and 13 of this safety data sheet.

## 7: Handling and storage

### 7.1 Handling:

Use the personal safety tools (section 8). Ensure fresh water for the first aid. Maintain the cleanness and tidiness on the working area. Provide basic employee training to prevent / minimize exposures and to report any healthy problems that may develop. Do not eat, drink or smoke during work. Avoid contact with skin and eyes. Wash hands duly with soap and water, take a shower. Use a body lotion.

### 7.2 Storage:

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Store at a dry and well ventilated place, not above normal room temperature. Store in tightly closed packages.

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## 7.3 Specific uses:

Pharmaceutical, cosmetic and food industry, Food additive, Ingredient for nutrient solutions in biochemistry

## 8: Exposure controls / personal protection

### 8.1 Exposure limit values

#### 8.1.1 Exposure limits

- not specified

#### 8.1.2 Biological limit values:

- not specified

#### 8.1.3 DNEL and PNEC values:

- not specified

### 8.2 Exposure control

#### 8.2.1 Occupational exposure control:

Operate in a well-ventilated area, avoid inhalation of dusts or mists (for liquids). Ensure shower and area for eyes rinsing. The mentioned personal safety instruments should be in compliance with EN standards.

#### Personal protective equipment:

Respiratory protection:	In the case of high dust levels wear suitable respiratory protective equipment, ie. dust mask or respirator conforming to EN standards. Recommended filter = particle filter,P2.
Hand protection:	Wear suitable chemical resistant protective gloves for frequent or prolonged operations tested to EN374 with an acceptable permeation test. Suitable materials include neoprene (chloroprene), PVC and nitrile rubber. Break through time is > 480 min. Contaminated gloves should be carefully rinsed with water before reuse. Non suitable materials: Leather gloves.
Eye / face protection:	Wear suitable eye/face protection. Most materials for protective goggles and face visors will probably be suitable eg. polycarbonate.
Skin and body protection:	Normal working clothes is suitable.

Do not eat, drink or smoke during work. Immediately remove contaminated clothing. Wash hands duly with soap and water, take a shower. Use a body lotion.

#### 8.2.2 Environmental exposure controls:

Prevent from escape to environment.

## 9: Physical and chemical properties

### 9.1 General information :

Physical state ( at 20 °C):	Solid - crystals
Colour:	White
Odour (fragrance):	Slightly ammoniacal
Threshold odour value:	Not available

### 9.2 Important health, safety and environmental information :

pH ( at 20 °C):	9 - 10 ( 100 g/l solution at 20 °C )
Melting point:	133 °C
Boiling point:	Decomposition beginning at melting point
Flash point:	Not applicable, incombustible matter
Evaporation rate:	Not applicable
Flamability (solid, gas) :	The substance is non-flammable
Explosion limits	lower: Not available, non-explosive matter upper: Not available, non-explosive matter
Vapour pressure:	Not available
Vapour density:	Not available
Relative density:	780 – 830 kg/m <sup>3</sup>
Water solubility ( at 20 °C) :	59 g / 100 ml
Solubility in solvents:	Not available
Partition coefficient n-octanol/water:	Log Pow : -1,59
Self-ignition temperature:	Not applicable
Decomposition temperature:	133 °C
Viscosity:	Not applicable

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<b>Explosive properties:</b>	The substance is non-explosive
<b>Oxidizing properties:</b>	The substance is non-oxidizing
<b>9.3 Other information:</b>	
<b>Fat solubility:</b>	Not available
<b>Conductivity:</b>	Not available
<b>Gas group:</b>	Not applicable
<b>10: Stability and reactivity</b>	
Stable under recommended storage and handling conditions.	
<b>10.1 Conditions to avoid:</b> Uncontrolled heating	
<b>10.2 Materials to avoid:</b> Violently react with nitrites, with strong oxidising agents.	
<b>10.3 Hazardous decomposition products:</b> Ammonia. Gaseous products of degradation can be given off if the product is greatly overheated.	
<b>11: Toxicological information</b>	
<b>Acute toxicity:</b>	
- LD <sub>50</sub> oral, rat (mg.kg <sup>-1</sup> ):	14 300
- LD <sub>50</sub> dermal, rabbit (mg.kg <sup>-1</sup> ):	No data available
- LC <sub>50</sub> inhalation, rat, for aerosols or particles (mg.l <sup>-1</sup> ):	No data available
<b>Skin irritation:</b>	No irritation
<b>Eye irritation:</b>	No irritation
<b>Sensitisation:</b>	No data available
<b>Carcinogenicity:</b>	Not carcinogenic substance
<b>Mutagenicity:</b>	Not mutagenic substance
<b>Toxicity for reproduction:</b>	No data available
<b>Toxicity for specific target body – single exposition</b>	No data available
<b>Toxicity for specific target body – repeated exposition:</b>	No data available
<b>Irritation if inhaled:</b>	Substance does not have irritable effects
<b>Other information:</b> none	
<b>12: Ecological information</b>	
<b>12.1 Ecotoxicity:</b>	
- LC <sub>50</sub> 96 hr., fish (mg.l <sup>-1</sup> ):	> 6 810
- EC <sub>50</sub> 48 hr., daphnia (mg.l <sup>-1</sup> ):	> 10 000
- EC <sub>50</sub> 72 hr. algae (mg.l <sup>-1</sup> ):	No data available
- EC <sub>50</sub> 30 min. bacteria (mg.l <sup>-1</sup> ):	No data available
<b>12.2 Mobility :</b>	No data available
<b>12.3 Persistence and degradability:</b>	96 % DOC reduction (16 d) (OECD 302B; ISO 9888; 88/302/EEC,part C) Biodegradable.
<b>12.4 Bioaccumulative potential:</b>	Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.
<b>12.5 Results of PBT assessment:</b>	Substance is not classified as PBT or vPvB.
<b>12.6 Other adverse effects:</b> Not specified.	
<b>13: Disposal considerations</b>	
<b>13.1 Product:</b> If recycling or reuse is not practical then the product must be disposed of by authorized personnel in accordance with	

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local, state or national regulations. Never dispose by flushing into the drainage! Waste former is responsible for its sorting and disposal.

***Special safety precaution for recommended waste treatment:***

Preferably dispose in independent container.

**13.2 Packaging:**

If recycling or reuse is not practical then packaging must be disposed of by authorized personnel in accordance with local, state or national regulations. Clean packaging with water and dispose of washings in accordance to local regulations. Packaging can be passed to a packaging return system after the cleaning.

**13.3 Legal waste regulations:**

Directive 2008/98/ES

**National or regional provisions may be in force !**

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## **14: Transport information**

<b>14.1</b> ADR/RID (Land Transport) :	Not classified as hazardous for transportation.
<b>14.2</b> ADN/ADNR (Inland Waterway Transport):	Not classified as hazardous for transportation.
<b>14.3</b> IMDG (Marine Transport) :	Not classified as hazardous for transportation.
<b>14.4</b> ICAO/IATA (Air Transport) :	Not classified as hazardous for transportation.

## **15: Regulatory Information**

**15.1 Health, safety and environmental information  
on the label : ---**

**15.2 Chemical Safety Assessment:**

Not available.

**15.3 National legislation:**

Regulation (EC) No. 1907 / 2006 / ES, REACH

Regulation (EC) No. 1272 / 2008 / ES, CLP

**National laws or provisions may be in force !**

## **16: Other information**

**Changes made in Safety Data Sheet in terms of revision:**

Revision of Safety data sheet in terms of avoidance of Directive 67/548/EHS.

**Key or explanation for abbreviations:**

DNEL Derived No Effect Level (derived concentration of substance, at which no unfavourable effects occur )

PNEC Predicted No Effect Concentration (prediction of substance concentration, at which no unfavourable effects occur )

PEL Acceptable exposure limit, long-term (8 hours)

**Important literature references and data sources:**

SDS of other producers, special literature, ECHA web. site <http://apps.echa.europa.eu/registered/registered-sub.aspx> )

**Training instructions:**

According to Safety Data Sheet.

**Recommended restrictions of use:**

Not specified

**Other :**

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