

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 3.2 Revision Date 11.12.2008

Print Date 23.03.2009

GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : Urea

Product Number : U0631  
Brand : Sigma

Company : Sigma-Aldrich Chemie GmbH  
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### 2. HAZARDS IDENTIFICATION

This substance is not classified as dangerous according to Directive 67/548/EEC.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Carbamide  
Carbonyldiamide

Formula : CH<sub>4</sub>N<sub>2</sub>O  
Molecular Weight : 60,06 g/mol

CAS-No.	EC-No.	Index-No.	Classification	Concentration
<b>Urea</b>				
57-13-6	200-315-5	-	-	-

### 4. FIRST AID MEASURES

#### If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration

#### In case of skin contact

Wash off with soap and plenty of water.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

### 5. FIRE-FIGHTING MEASURES

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Avoid dust formation.

### Environmental precautions

Do not let product enter drains.

### Methods for cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### Handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

### Storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Personal protective equipment

#### Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

For prolonged or repeated contact use protective gloves.

#### Eye protection

Safety glasses

#### Hygiene measures

General industrial hygiene practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form solid

Colour white

### Safety data

pH 7,5 - 9,5 at 480 g/l at 25 °C

Melting point 133 - 135 °C

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Vapour pressure 0,009 hPa at 20 °C

Density 1,335 g/cm<sup>3</sup>

Water solubility 480 g/l at 20 °C - completely soluble

Partition coefficient: log Pow: -2,59 - -1,59

n-octanol/water

## 10. STABILITY AND REACTIVITY

### Storage stability

Stable under recommended storage conditions.

### Materials to avoid

Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO<sub>x</sub>)

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

LD50 Oral - rat - 8.471 mg/kg

### Irritation and corrosion

Skin - rabbit - No skin irritation

Eyes - rabbit - No eye irritation

### Sensitisation

no data available

### Chronic exposure

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Genotoxicity in vitro - mouse - lymphocyte  
DNA damage

Genotoxicity in vivo - mouse - Oral  
Cytogenetic analysis

### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Potential Health Effects

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.
<b>Ingestion</b>	May be harmful if swallowed.

### Additional Information

RTECS: YR6250000

## 12. ECOLOGICAL INFORMATION

### Elimination information (persistence and degradability)

no data available

### Ecotoxicity effects

Toxicity to fish LC50 - *Poecilia reticulata* (guppy) - 17.500 mg/l - 96 h

Toxicity to daphnia and other aquatic EC50 - *Daphnia magna* (Water flea) - 3.910 mg/l - 48 h

invertebrates.

**Further information on ecology**

no data available

**13. DISPOSAL CONSIDERATIONS**

**Product**

Observe all federal, state, and local environmental regulations.

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORT INFORMATION**

**ADR/RID**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**15. REGULATORY INFORMATION**

**Labelling according to EC Directives**

Further information:

The product does not need to be labelled in accordance with EC directives or respective national laws.

**16. OTHER INFORMATION**

**Further information**

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