

SAFETY DATA SHEET

Urea Solutions

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

1.1. Product identifier

Trade name or designation of the mixture Urea Solutions

Product application

GE Analytical Instruments part number	Product name
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STD 77600	-
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GE Analytical Instruments kit number

STD 99015

Version number 1.0

Revision date 22/12/2016

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

Identified uses Reference Standard

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

GE Analytical Instruments Inc

6060 Spine Road

Boulder, CO 80301

T 303-444-2009

e-mail : emea.productstewardship@ge.com

GE Water & Process Technologies Hungary Kft.

2800 Tatabánya, Vigadó utca 2011 hrsz.

Hungary

Tel: +36 34 512-520

e-mail : oro.ehs@ge.com

1.4. Emergency telephone number

1-800-535-5053 INFOTRAC (North America)

Outside of N.A., call collect: 1-352-323-3500

GE (800) 877-1940

National Poisons Information Centre

NHS Direct on 0845 46 47

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Urea, Water

Hazard pictograms None.

Signal word None.

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

Precautionary statements

Prevention Not available.

Response Not available.

Storage Not available.

Disposal Not available.

Supplemental label information None.

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2.3. Other hazards None known.

SECTION 3: Composition/information on ingredients**Mixtures**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Water	>99,9	7732-18-5 231-791-2	-	-	
Classification:	-				
Urea	< 0,1	57-13-6 200-315-5	01-2119463277-33	-	
Classification:	-				

The classification of the above substance(s) is given, including the hazard class, category code and hazard statements which are assigned in accordance with their physicochemical, health and environmental hazards. Please refer to section 16 where the full text of each relevant H-statement is listed.

SECTION 4: First aid measures**4.1. Description of first aid measures**

Inhalation	No treatment required.
Skin contact	Wash off immediately with plenty of water.
Eye contact	Rinse with water.
Ingestion	Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed Not applicable.

4.3. Indication of any immediate medical attention and special treatment needed Not available.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media	Non combustible.
Unsuitable extinguishing media	None.

5.2. Special hazards arising from the substance or mixture None known.

5.3. Advice for firefighters

Special protective equipment for firefighters	No special protective equipment required.
Special fire fighting procedures	Not applicable.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel	No special protective equipment required.
For emergency responders	Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions No special environmental precautions required.

6.3. Methods and material for containment and cleaning up After cleaning, flush away traces with water.

6.4. Reference to other sections Please refer also to section no. 8 'Exposure controls' for further information.

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SECTION 7: Handling and storage

- 7.1. Precautions for safe handling Handle in accordance with good industrial hygiene and safety procedures.
- 7.2. Conditions for safe storage, including any incompatibilities Reasonable and safe chemical storage.
- 7.3. Specific end use(s) Only for professional and industrial users

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

- Occupational exposure limits No exposure limits noted for ingredient(s).
- Biological limit values No biological exposure limits noted for the ingredient(s).
- Recommended monitoring procedures Not available.
- Derived no-effect level (DNEL) Not available.
- Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

- Appropriate engineering controls Not available.
- Individual protection measures, such as personal protective equipment
- Eye/face protection Safety glasses.
CEN : EN 166
 - Skin protection
 - Hand protection None required.
 - Other No special protective equipment required.
 - Respiratory protection Not required.
 - Thermal hazards Not available.
- Environmental exposure controls Not applicable.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

- Colour Colourless
- Physical state Liquid
- Odour None
- Odour threshold Not available.
- pH (concentrated product) 7
- Melting point/freezing point 0 °C
- Initial boiling point and boiling range 100 °C
- Flash point Not applicable.
- Evaporation rate < 1 (Ether = 1)
- Flammability (solid, gas) Not applicable.
- Upper/lower flammability or explosive limits
 - Flammability limit - lower (%) Not available.
 - Flammability limit - upper (%) Not available.
- Vapour pressure 18 mm Hg
- Vapor pressure temp. 21 °C
- Vapour density < 1 (Air = 1)

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Relative density	1
Relative density temperature	21 °C
Solubility	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Viscosity temperature	21 °C
Explosive properties	Not available.
Oxidising properties	Not available.
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	Not available.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	Not applicable.
10.4. Conditions to avoid	Not available.
10.5. Incompatible materials	None known.
10.6. Hazardous decomposition products	None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Product	Test results
Urea Solutions (Mixture)	Dermal LC50 Rabbit: > 5000 mg/kg (Calculated according to GHS additivity formula) Oral LC50 Rat: > 5000 mg/kg (Calculated according to GHS additivity formula)
Components	Test results
Urea (57-13-6)	Acute Dermal LD50 Rabbit: 8200 mg/kg Acute Oral LD50 Rat: 8471 mg/kg
Acute toxicity	Not classified.
Skin corrosion/irritation	Not classified.
Serious eye damage/irritation	May be irritating to eyes.
Respiratory or skin sensitisation	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Specific target organ toxicity - single exposure	Not classified.
Carcinogenicity	Not classified.
Germ cell mutagenicity	Not classified.
Reproductive toxicity	Not classified.
Information on likely routes of exposure	
Ingestion	May cause irritation of the gastrointestinal tract.

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Inhalation	No specific symptoms known.
Skin contact	May be irritating to the skin.
Eye contact	May be irritating to eyes.
Symptoms	Not available.
Aspiration hazard	Not classified.
Mixture versus substance information	None known.
Other information	Not available.

SECTION 12: Ecological information

12.1. Toxicity	No toxicity data noted for the ingredient(s).
12.3. Bioaccumulative potential	Not available.
Partition coefficient n-octanol/water (log Kow)	
Urea	-2,11
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	Not available.
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
12.6. Other adverse effects	Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Contaminated packaging	According to Controlled Waste Regulations. EWC (European Waste Code) recommendation : 15 01 02 15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified. 15 01 Packaging (including separately collected municipal packaging waste). 15 01 02 Plastic packaging. Depending on the origin and state of the waste, other EWC numbers may be applicable too.
Disposal methods/information	According to Controlled Waste Regulations. EWC (European Waste Code) recommendation : 16 03 06 16 Wastes not otherwise specified in the list. 16 03 Off-specification batches and unused products. 16 03 06 Organic wastes Depending on the origin and state of the waste, other EWC numbers may be applicable too.

SECTION 14: Transport information

ADR	Not regulated as dangerous goods.
RID	Not regulated as dangerous goods.
ADN	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Material name: Urea Solutions

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EU regulations

- Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended
Not listed.
- Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended
Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended
Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended
Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended
Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended
Not listed.
- Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry
Not listed.
- Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
Not listed.

Authorisations

- Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorisation
Not listed.

Restrictions on use

- Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Not listed.
- Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work
Not listed.
- Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding
Not regulated.

Other EU regulations

- Directive 2012/18/EU on major accident hazards involving dangerous substances
Not listed.
- Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work
Not regulated.
- Directive 94/33/EC on the protection of young people at work
Not regulated.

National regulations Not available.

15.2. Chemical safety assessment Not available.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16: Other information

List of abbreviations

CAS: Chemical Abstract Service.
EC-No: European Commission Number
CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
CEN: European Committee for Standardization (Comité Européen de Normalisation).
TWA: Time Weighted Average.

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STEL: Short-term Exposure Limit.
LD50: Lethal Dose 50%.
LC50: Lethal Concentration 50%.
EC50: Effective Concentration 50%.
NOEL: No observed effect level.
COD: Chemical Oxygen Demand
BOD: Biochemical oxygen demand.
TOC: Total Organic Carbon.
ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des marchandises dangereuses par route).
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures).
IATA: International Air Transport Association
IMDG Code: International Maritime Dangerous Goods Code.
RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer).
Safety data sheets of raw materials.

References

Information on evaluation method leading to the classification of mixture

The physical, health and environmental hazards of this mixture are assessed by applying the classification criteria for each hazard class or differentiation in Parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008 (CLP).

Full text of any H-statements not written out in full under Sections 2 to 15

None.

Revision information

None.

Training information

Provide training on safe handling while considering the type of application and exposure scenarios.

Based on EC Directive / Regulations

(EC) No 1907/2006 (REACH)
(EC) No 1272/2008
(EU) No 1357/2014
(EU) 2015/830

Further information

Initial issue