Version: 02.2020
Rev.0

Material safety data sheet

According to EU Regulation 1907/2006 in the current version

Cosmetic Urea

1. Identification of the substance/mixture and company

Trade name:	Cosmetic Urea
Chemical formula:	CH4N2O
	Humectant, moisturizer, keratolytic agent
INCI	Urea
CAS No. :	57-13-6
EINESCS/EC No. :	-
REACH pre-registration No. :	01-2119463277-33-XXXX
Utilization:	Raw material for cosmetic or professional use
Supplier company identification:	Elemental SRL, Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania
	Tel/Fax: +40259-436.755, www.elemental.eu
Emergency:	RO: număr național pentru cazuri de urgență: 021 3183606 Institutul de Sănătate Publică București.
	International emergency number: +49 180 2273-112

2. Hazards Identification

2.1 Classification of the substance or mixture
Classification (REGULATION (EC) No 1272/2008)
Not a hazardous substance or mixture.

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)
Not a hazardous substance or mixture.

2.3 Other hazards
None known.

3. Declaration of ingredients

3.1 Substances

Formula	CH4N2O(Hill) CO(NH2)2
EC-No.	200-315-5
Molar mass	60,06 g/mol

Remarks : No hazardous ingredients

3.2 Mixture
Not applicable

4. First aid measures

Material safety data sheet
According to EU Regulation 1907/2006 in the current version
Cosmetic Urea

4.1 Description of first aid measures
If inhaled : fresh air.
In case of skin contact : Take off immediately all contaminated clothing. Rinse skin with water/ shower.
In case of eye contact : rinse out with plenty of water. Remove contact lenses.
If swallowed : make victim drink water (two glasses at most). Consult doctor if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed
Symptoms : Cough Nausea Shortness of breath Vomiting

4.3 Indication of any immediate medical attention and special treatment needed
Treatment : No information available.

5. Fire fighting measures

5.1 Extinguishing media
Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture
Specific hazards during firefighting : Not combustible. Risk of dust explosion.
Ambient fire may liberate hazardous vapours.
Fire may cause evolution of: Ammonia nitrous gases

5.3 Advice for firefighters
Special protective equipment for firefighters : Stay in danger area only with self-contained breathing apparatus.
Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
Further information : Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Personal precautions : Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.
Advice for emergency responders: Protective equipment see section 8.

6.2 Environmental precautions
Environmental precautions : Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up
Methods for cleaning up : Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7 and 10).

Material safety data sheet
According to EU Regulation 1907/2006 in the current version
Cosmetic Urea

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections
Indications about waste treatment see section 13.

7. Handling and storage

7.1 Precautions for safe handling
Advice on safe handling : Observe label precautions.
Hygiene measures : Change contaminated clothing. Wash hands after working with substance.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers : Store in original container.
Further information on storage conditions : Tightly closed. Dry.
Risks from decomposition products: see section 10.3
Recommended storage temperature : Recommended storage temperature see product label.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure controls / personal protection

8.1 Control parameters

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
urea	Workers	inhalation	Long-term systemic effects	292 mg/m3
	Workers	dermal	Long-term systemic effects	580 mg/kg
	Workers	inhalation	Acute systemic effects	292 mg/m3
	Workers	dermal	Acute systemic effects	580 mg/kg
	Consumers	inhalation	Long-term systemic effects	125 mg/m3
	Consumers	dermal	Long-term systemic effects	580 mg/kg
	Consumers	oral	Long-term systemic effects	42 mg/kg
	Consumers	inhalation	Acute systemic effects	125 mg/m3
	Consumers	dermal	Acute systemic effects	580 mg/kg
	Consumers	oral	Acute systemic effects	42 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value

urea	Fresh water	0,047 mg/l

8.2 Exposure controls
Engineering measures
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.
See section 7.1.
Personal protective equipment
Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled and must meet the specifications of a standard EN/ISO/DIN. The chemical resistance of the protective equipment should be enquired at the respective supplier.
Eye protection : Safety glasses
Hand protection : full contact
Glove material : Nitrile rubber
Glove thickness : 0,11 mm
Break through time : 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example: (full contact) KCL 741 (splash contact).
The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.
This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).
Respiratory protection : required when dusts are generated.
Recommended Filter type: : Filter P 1 (acc. to DIN 3181) for solid particles of inert substances.
The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental exposure controls
General advice : Do not flush into surface water or sanitary sewer system.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties
Form solid
Colour white
Odour ammoniacal
Odour Threshold Ammonia
pH ca. 9 at 20°C 100 g/l
Melting point 133°C Method: DIN 53181
Boiling point/boiling range decomposition below boiling point
Flash point Not applicable
Evaporation rate No information available.

Material safety data sheet
According to EU Regulation 1907/2006 in the current version
Cosmetic Urea

Flammability (solid, gas) The product is not flammable.
Lower explosion limit No information available.
Upper explosion limit No information available.
Vapour pressure < 0,1 hPa at 20°C
Relative vapour density No information available.
Density 1,33 g/cm3 at 20°C
Solubility(ies) No information available.
Water solubility 624 g/l at 20°C Method: OECD Test Guideline 105
Partition coefficient: n-octanol/water log Pow: -1,59 (at 25°C) Method: OECD Test Guideline 107 Bioaccumulation is not expected.
Auto-ignition temperature No information available.
Decomposition temperature No information available.
Viscosity, kinematic No information available.
Explosive properties Not classified as explosive.
Oxidizing properties none

9.2 Other data
Ignition temperature Not applicable
Bulk density 720 - 760 kg/m3

10. Stability and reactivity

10.1 Reactivity
Risk of dust explosion.

10.2 Chemical stability
The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions
Hazardous reactions : Generates dangerous gases or fumes in contact with: bases, chlorinated solvents
Exothermic reaction with: metallic chlorides, Chlorites, chromates/perchromates, Fluorine, nitrates, Strong oxidizing agents, hydrogen peroxide, Titanium tetrachloride
Risk of explosion with: ammonium nitrate, calcium hypochlorite, Chlorine, chromyl chloride, Nitroso compound, sodium hypochlorite, nitrosyl compounds, phosphorus pentachloride, perchlorates, nitrites, Nitro compounds

10.4 Conditions to avoid
Conditions to avoid : Strong heating (decomposition).

10.5 Incompatible materials
Materials to avoid : no information available

10.6 Hazardous decomposition products
in the event of fire: See section 5.

11. Toxicological information

Material safety data sheet
According to EU Regulation 1907/2006 in the current version
Cosmetic Urea

11.1 Information on toxicological effects
Acute toxicity
Product:
Acute oral toxicity : LD50 (Rat): 8.471 mg/kg
Remarks: (RTECS)
Acute inhalation toxicity : No data available
Acute dermal toxicity : LD50 (Rat): 8.200 mg/kg
Remarks: (IUCLID)

Skin corrosion/irritation
Product:
Species: Rabbit
Result: No irritation
Remarks: (IUCLID)

Serious eye damage/eye irritation
Product:
Species: Rabbit
Result: No eye irritation
Remarks: (IUCLID)

Respiratory or skin sensitisation
Product:
Test Type: Human experience
Result: negative
Remarks: (IUCLID)

Germ cell mutagenicity
Product:
Genotoxicity in vitro : Test Type: Ames test
Result: negative
Remarks: (IUCLID)

Carcinogenicity
Product:
This information is not available.
STOT - single exposure
Product:
No data available
STOT - repeated exposure
Product:
No data available

Repeated dose toxicity

Material safety data sheet
According to EU Regulation 1907/2006 in the current version
Cosmetic Urea

Product:
No data available
Aspiration toxicity
Product:
No data available

11.2 Other information
Product:
Substances which occur in nature
After uptake of large quantities: Cough, Shortness of breath, Nausea, Vomiting
No toxic effects are to be expected when the product is handled appropriately.
Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

12.1 Summary
Toxicity
Product:
Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 6.810 mg/l
Exposure time: 96 h
Remarks: (IUCLID)
Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10.000 mg/l
Exposure time: 24 h
Remarks: (IUCLID)
Toxicity to algae : IC5 (Scenedesmus quadricauda (Green algae)): > 10.000 mg/l
Exposure time: 7 d
Remarks: (Lit.) (maximum permissible toxic concentration)
Toxicity to microorganisms : EC5 (Pseudomonas putida): > 10.000 mg/l
Exposure time: 16 h
Remarks: (Lit.) (maximum permissible toxic concentration)

12.2 Persistence and degradability
Product:
Biodegradability
Result: Readily eliminated from water
Biodegradation: 96 %
Exposure time: 16 d
Method: OECD Test Guideline 302B
No data available
Partition coefficient: n
octanol/water
: log Pow: -1,59 ( )
Method: OECD Test Guideline 107

12.3 Bioaccumulative potential

Material safety data sheet
According to EU Regulation 1907/2006 in the current version
Cosmetic Urea

Product:
Bioaccumulation
Remarks: Bioaccumulation is not expected.

12.4 Mobility in soil
Product:
No data available

12.5 Results of PBT and vPvB assessment
Product:
Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
Product:
Additional ecological information : Discharge into the environment must be avoided.

13. Disposal considerations

13.1 Waste treatment methods
Product : See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

14. Transport information

Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable
REACH - List of substances subject to authorisation (Annex XIV): Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).: Not applicable
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals: Not applicable
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII): Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances: Not applicable
Storage class : 10 - 13

15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out.

Material safety data sheet

According to EU Regulation 1907/2006 in the current version

Cosmetic Urea

16. Additional information

16.1 Abbreviations

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CLP: Classification, Labeling, Packaging.
DNEL: Derived No Effect Level.
EINECS: European Inventory of Existing Commercial Chemical Substances.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
LTE: Long-term exposure.
PNEC: Predicted No Effect Concentration.
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE: Short-term exposure.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.

Disclaimer:
This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.