

Safety data sheet

according to 1907/2006/EC, Article 31 as amended

Printing date 10.10.2023

Version number 2

Revision: 10.10.2023

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

- **1.1 Product identifier**
- **Trade name:** Urea
- **CAS Number:**
57-13-6
- **EC number:**
200-315-5
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category**
- PC1 Adhesives, sealants
- PC2 Adsorbents
- PC3 Air care products
- PC4 Anti-Freeze and de-icing products
- PC8 Biocidal products
- PC9a Coatings and paints, thinners, paint removers
- PC9b Fillers, putties, plasters, modelling clay
- PC10: Building and construction preparations
- PC11 Explosives
- PC12 Fertilisers
- PC14 Metal surface treatment products
- PC15 Non-metal-surface treatment products
- PC16 Heat transfer fluids
- PC18 Ink and toners
- PC19 Intermediate
- PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
- PC21 Laboratory chemicals
- PC27 Plant protection products
- PC29 Pharmaceuticals
- PC32 Polymer preparations and compounds
- PC34 Textile dyes, and impregnating products
- PC35 Washing and cleaning products (including solvent based products)
- PC37 Water treatment chemicals
- PC39 Cosmetics, personal care products
- PC40 Extraction agents
- PC0 Other
- **Application of the substance / the mixture**
The product has many industrial, professional and consumer applications.
- **Uses advised against** Processes involving the use of incompatible substances - refer to section 10.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Severn Biotech Ltd.
Unit 2,
Park Lane,
Kidderminster,
Worcestershire.
DY11 6TJ
UK
Tel: 0044 1562 825286
Fax: 0044 1562 825284
email: info@severnbiotech.com
- **Further information obtainable from:** Product safety department.
- **1.4 Emergency telephone number:**
Members of the public seeking specific information on poisons should contact:
In England and Wales: NHS 111 - dial 111
In Scotland: NHS 24 - dial 111

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SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The substance is not classified, according to the GB CLP regulation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description**
57-13-6 Urea
- **Identification number(s)**
- **EC number:** 200-315-5

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately rinse with water.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Check for and remove any contact lenses.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
- **Information for doctor:** Treat symptomatically and supportively.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Nitrogen oxides (NO_x)
Ammonia

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- **5.3 Advice for firefighters**
- **Protective equipment:**
 - Wear self-contained respiratory protective device.
 - Do not inhale explosion gases or combustion gases.
 - Wear fully protective suit.
- **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
 - Avoid formation of dust.
 - Ensure adequate ventilation
 - Keep ignition sources away - no smoking.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
 - Pick up mechanically.
 - Send for recovery or disposal in suitable receptacles.
- **6.4 Reference to other sections**
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
 - No special measures required.
 - Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
 - **Requirements to be met by storerooms and receptacles:** No special requirements.
 - **Information about storage in one common storage facility:** Store away from oxidising agents.
 - **Further information about storage conditions:**
 - Protect from humidity and water.
 - Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 13
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see section 7.
- **Ingredients with limit values that require monitoring at the workplace:** Not required.

· DNELs

Oral	DNEL Long-term systemic effects	42 mg/kg bw/day (general population)
	DNEL Short-term systemic effects	42 mg/kg bw/day (general population)
Dermal	DNEL Long-term systemic effects	300 mg/kg bw/day (general population)
		500 mg/kg bw/day (worker)
	DNEL Short-term systemic effects	300 mg/kg bw/day (general population)
		500 mg/kg bw/day (worker)
Inhalative	DNEL Long-term systemic effects	125 mg/m ³ (general population)
		292 mg/m ³ (worker)

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	DNEL Short-term systemic effects	125 mg/m ³ (general population) 292 mg/m ³ (worker)
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- **PNECs**

PNEC Freshwater	47 – 14,070 µg/L
PNEC Freshwater - Intermittent releases	100 mg/L
PNEC Marine water	1.407 mg/L
PNEC Marine Water - Intermittent releases	100 mg/L
PNEC Sewage Treatment Plant	1,000 mg/L
PNEC Sediment (freshwater)	68.66 mg/kg
PNEC Sediment (marine water)	6.866 mg/kg
PNEC Soil	121 mg/kg

- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Avoid contact with the eyes and skin.

Do not eat, drink, smoke or sniff while working.

Do not breathe dust

Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

- **Respiratory protection:** When dust/mist are present use a Particulate filter, type P2.

- **Protection of hands:**



Protective gloves.

Use gloves tested and approved under appropriate government standards such as NIOSH (US) or EN374 (EU).

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Safety glasses with side-shields conforming to EN166.

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

- **Body protection:**



Protective work clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Crystalline powder

Colour: White

· **Odour:** Ammonia-like

· **Odour threshold:** Not determined.

· **pH-value:** 9.2 – 9.5

· Change in condition

Melting point/freezing point: 135 °C

Initial boiling point and boiling range: Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Product is not flammable.

· **Decomposition temperature:** Not determined.

· **Ignition temperature:** Not determined.

· **Explosive properties:** Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.

Upper: Not determined.

· **Vapour pressure:** Not applicable.

· **Density at 20 °C:** 1.323 g/cm³

· **Bulk density:** 725 – 760 kg/m³

· **Relative density:** Not determined.

· **Vapour density:** Not applicable.

· **Evaporation rate:** Not applicable.

· Solubility in / Miscibility with water at 20 °C:

800 g/l

· **Partition coefficient: n-octanol/water:** Not determined.

· Viscosity:

Dynamic: Not applicable.

Kinematic: Not applicable.

· 9.2 Other information

NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

· **10.2 Chemical stability**

· **Thermal decomposition / conditions to be avoided:** Decomposes on heating, producing toxic fumes.

· **10.3 Possibility of hazardous reactions**

Reacts violently with oxidising agents.

Reacts violently with fluorine.

Reacts violently with chlorates and perchlorates in the presence of water.

· **10.4 Conditions to avoid** No further relevant information available.

· **10.5 Incompatible materials:**

Strong oxidising agents.

Substances specifically listed in section 10.3 as incompatible.

Nitrates

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· 10.6 Hazardous decomposition products:

Nitrogen oxides (NO_x)
Carbon monoxide and carbon dioxide
Ammonia
Isocyanuric acid

SECTION 11: Toxicological information**· 11.1 Information on toxicological effects**

· **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

Oral	LD50	> 5,000 mg/kg (rat)
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· Primary irritant effect:

· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.

· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

· **Subacute to chronic toxicity:** Prolonged or repeated skin contact may irritate and cause dermatitis.

· Additional toxicological information:

ROUTES OF EXPOSURE: Can be absorbed into the body by inhalation and by ingestion.

A nuisance-causing concentration of airborne particles can be reached quickly when dispersed, especially if powdered.

· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

· **Carcinogenicity** Based on available data, the classification criteria are not met.

· **Reproductive toxicity** Based on available data, the classification criteria are not met.

· **STOT-single exposure** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure** Based on available data, the classification criteria are not met.

· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information**· 12.1 Toxicity****· Aquatic toxicity:**

EC50 (96 h)	> 10,000 mg/l (Bacteria)
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· **12.2 Persistence and degradability** biodegradable

· **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.

· **12.4 Mobility in soil** No further relevant information available.

· Additional ecological information:**· General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· 12.5 Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations**· 13.1 Waste treatment methods****· Recommendation**

Recommended Hierarchy of Controls:

- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

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Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

- **Uncleaned packaging:**

- **Recommendation:**

Disposal must be made according to official regulations.

Containers, even those that are "empty," may contain residues that can develop flammable and/or hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN-Number**

- **ADR/RID/ADN, ADN, IMDG, IATA** Void

- **14.2 UN proper shipping name**

- **ADR/RID/ADN, ADN, IMDG, IATA** Void

- **14.3 Transport hazard class(es)**

- **ADR/RID/ADN, ADN, IMDG, IATA**
- **Class** Void

- **14.4 Packing group**

- **ADR/RID/ADN, IMDG, IATA** Void

- **14.5 Environmental hazards:**

- **Marine pollutant:** No

- **14.6 Special precautions for user** Not applicable.

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

- **Transport/Additional information:** Not dangerous according to the above specifications.

- **UN "Model Regulation":** Void

SECTION 15: Regulatory information

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

- **Poisons Act**

- **Regulated explosives precursors** Substance is not listed.

- **Regulated poisons** Substance is not listed.

- **Reportable explosives precursors** Substance is not listed.

- **Reportable poisons** Substance is not listed.

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** Substance is not listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product safety department.

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· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· * Data compared to the previous version altered.

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Annex: Exposure scenario

* **Product category**

- PC1 Adhesives, sealants
- PC2 Adsorbents
- PC3 Air care products
- PC4 Anti-Freeze and de-icing products
- PC8 Biocidal products
- PC9a Coatings and paints, thinners, paint removers
- PC9b Fillers, putties, plasters, modelling clay
- PC10: Building and construction preparations
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- PC12 Fertilisers
- PC14 Metal surface treatment products
- PC15 Non-metal-surface treatment products
- PC16 Heat transfer fluids
- PC18 Ink and toners
- PC19 Intermediate
- PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
- PC21 Laboratory chemicals
- PC27 Plant protection products
- PC29 Pharmaceuticals
- PC32 Polymer preparations and compounds
- PC34 Textile dyes, and impregnating products
- PC35 Washing and cleaning products (including solvent based products)
- PC37 Water treatment chemicals
- PC39 Cosmetics, personal care products
- PC40 Extraction agents
- PC0 Other

Description of the activities / processes covered in the Exposure Scenario

See section 1 of the annex to the Safety Data Sheet.

Conditions of use

Duration and frequency 5 workdays/week.

Physical parameters

Physical state Solid

Concentration of the substance in the mixture Raw material.

Other operational conditions

Other operational conditions affecting environmental exposure

Observe section 6 of the Safety Data Sheet (Accidental release measures).

Other operational conditions affecting worker exposure

Do not breathe dust.

Keep container tightly closed and dry.

Ensure adequate ventilation, especially in closed rooms.

Observe section 6 of the Safety Data Sheet (Accidental release measures).

Avoid contact with eyes.

Avoid long-term or repeated skin contact.

Other operational conditions affecting consumer exposure

Keep out of the reach of children.

Not required.

Other operational conditions affecting consumer exposure during the use of the product Not applicable.

Risk management measures

Worker protection

Organisational protective measures

Provide Internal Plant Instruction.

Employment restrictions concerning juveniles must be observed.

Provide washing facilities in the workplace.

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.

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· Technical protective measures

- Store in cool, dry place in tightly closed receptacles.
- Keep away from heat and direct sunlight.
- Ensure good ventilation/exhaustion at the workplace.
- Prevent formation of dust.
- Use only in well ventilated areas.

· Personal protective measures

- Keep away from foodstuffs, beverages and feed.
- Wash hands before breaks and at the end of work.
- Do not inhale dust / smoke / mist.
- Avoid close or long term contact with the skin.
- Avoid contact with the eyes.
- Do not eat or drink while working.
- Ensure that washing facilities are available at the work place.
- No special measures required.

· Measures for consumer protection No special measures required.**· Environmental protection measures**

- Air** No special measures required.
- Water** No special measures required.

· Disposal measures

- Disposal must be made according to official regulations.
- Ensure that waste is collected and contained.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· Disposal procedures

- Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Containers, even those that are "empty," may contain residues that can develop hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.
- Dispose of product residues with household waste.

· Waste type Partially emptied and uncleaned packaging**· Exposure estimation**

- Consumer** Not relevant for this Exposure Scenario.

· Guidance for downstream users No further relevant information available.

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