

## SAFETY DATA SHEET

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**1.1. Product identifier:**  
**Emsodur Urea, Type II**

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

- Industrial plastic media for mechanical deburring in closed systems
- Use exclusively in closed industrial processes

Exempted from this application in accordance with REACH Annex XVII, entry 78, paragraph 4(a):  
No intentional release into the environment

Uses that are not recommended:

- Use outside closed systems
- Applications with potential release into the environment

**1.3. Details of the supplier of the safety data sheet:**

Information about the manufacturer:

**Emsodur AG**  
7013 Domat/Ems, Industriepark Vial 2  
Switzerland  
Tel.: +41 81 632 8011

1.3.1. Responsible person: -  
E-mail: [info@emsodur.com](mailto:info@emsodur.com)

**1.4. Emergency phone number:** Chemical emergency number in the respective country (otherwise Emsodur AG +41 81 632 80 11)

### SECTION 2: HAZARDS IDENTIFICATION

**2.1. Classification of the substance or mixture:**

Classification according to Regulation (EC) No 1272/2008 (CLP):

**Not considered as hazardous mixture.**

**Hazard statements:** No hazard statements.

**2.2. Label elements:**

**Hazard statements:** No hazard statements.

**Precautionary statements:** No precautionary statements.

**2.3. Other hazards:**

The product has no other known specific hazards for human or environment.

Results of PBT and vPvB assessment: This mixture does not contain any components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1 % or higher in accordance with Annex XIII of Regulation 1907/2006/EC.

Endocrine disrupting property: The mixture does not contain any components considered to have endocrine disrupting properties in accordance with Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1 % or higher.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substances:

Not applicable.

#### 3.2. Mixtures:

Description: Polymers are exempted from Reach registration. Polymers like Polyamide which we use for Emsodur (Type N, Type S) are not affected by Reach.

Bezeichnung	CAS-Nummer	EG-Nummer / ECHA Listennummer	REACH Registrier-nummer	Konz. (%)	Einstufung gemäß Verordnung (EG) Nr. 1272/2008 (CLP)		
					Piktogramm, Kodierung der Signalworte	Gefahrenklasse und Gefahrenkodierung	Kodierung der Gefahrenhinweise
Duroplast Urea Amino Polymer*	9011-05-6	-	-	66-70	-	not classified	-
Cellulose*	9004-34-6	232-674-9	-	30-33	-	not classified	-
Titanium Dioxide (Pigment)*	13463-67-7	236-675-5	-	<0.8	-	not classified	-
Iron Oxide & Zinc Stearate & Barium Sulfate*	-	-	-	<0.1	-	not classified	-
QAC, Anti Static Solution*	-	-	-	<0.001	-	not classified	-

\*: Classification specified by the manufacturer; the substance is not listed in Annex VI of the Regulation (EC) No 1272/2008.

It does not contain any other substance considered to be hazardous to health or to the environment or its concentration does not reach the level specified in the relevant legislation and therefore it does not need to be included in the safety data sheet.

### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures:

##### INGESTION:

Measures:

- In case of complaints, obtain medical help.

##### INHALATION:

Measures:

- In case of complaints, obtain medical help.

##### SKIN CONTACT:

Measures:

- In case of complaints, obtain medical help.

##### EYE CONTACT:

Measures:

- In case of complaints, obtain medical help.

#### 4.2. Most important symptoms and effects, both acute and delayed:

No acute and delayed symptoms and effects known.

#### 4.3. Indication of any immediate medical attention and special treatment needed:

No special treatment needed; treat symptomatically.

### SECTION 5: FIREFIGHTING MEASURES

#### 5.1. Extinguishing media:

##### 5.1.1. Suitable extinguishing media:

Water fog, foam, dry chemical, carbon dioxide.

##### 5.1.2. Unsuitable extinguishing media:

No data available.

#### 5.2. Special hazards arising from the substance or mixture:

The formation of dangerous decomposition products greatly depends on the circumstances of the combustion. A complex mixture of airborne solid, liquid and gas substances may occur, such as carbon monoxide, carbon dioxide and unidentified compounds.

**5.3. Advice for firefighters:**

Wear full protective clothing and self-contained breathing apparatus.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**6.1. Personal precautions, protective equipment and emergency procedures:**

**6.1.1. For non-emergency personnel:**

Allow only well-trained experts wearing suitable protective clothing to abide in the field of accident.

**6.1.2. For emergency responders:**

No special precautions required.

**6.2. Environmental precautions:**

Dispose of the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

**6.3. Methods and material for containment and cleaning up:**

Collect the spilled product mechanically, then place the collected waste into appropriate, labelled, closable waste container till proper removal/disposal.

**6.4. Reference to other sections:**

For further and detailed information see Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

**7.1. Precautions for safe handling:**

Observe conventional hygiene precautions.

**Technical measures:**

No special measures required.

**Precautions against fire and explosion:**

No special measures required.

**7.2. Conditions for safe storage, including any incompatibilities:**

**Technical measures and storage condition:**

No special measures required.

**Incompatible materials:** See Section 10.5

**Packaging material:** No special prescriptions.

**7.3. Specific end use(s):**

No specific instructions available.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1. Control parameters:**

**Occupational exposure limit values** (Commission Directive (EC) No 2000/39 of 8 June 2000):

The components of the mixture are not regulated with exposure limit value.

DNEL values		Oral exposure		Dermal exposure		Inhalative exposure	
		Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)
Consumer	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data
Worker	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data

PNEC values		
Compartment	Value	Note(s)
Freshwater	no data	no notes
Marine water	no data	no notes
Freshwater sediment	no data	no notes
Marine water sediment	no data	no notes
Sewage Treatment Plant (STP)	no data	no notes

Intermittent release	no data	no notes
Secondary poisoning	no data	no notes
Soil	no data	no notes

## 8.2. Exposure controls:

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

### 8.2.1. Appropriate engineering controls:

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.

### 8.2.2. Individual protection measures, such as personal protective equipment:

The information regarding personal protective equipment is only for informative purposes. A complete risk assessment is required before the use of the product for the determination of the appropriate personal protective equipment, taking local circumstances into account.

1. **Eye/face protection:** Not required.
2. **Skin protection:**
  - a. **Hand protection:** Not required.
  - b. **Other:** Not required.
3. **Respiratory protection:** Not required.
4. **Thermal hazards:** No thermal hazards known.

### 8.2.3. Environmental exposure controls:

No specific prescription.

**The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions, an expert's advice is necessary before deciding upon further protective measures.**

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties:

Parameter	Value / Test method / Remarks
1. Physical state	solid, granulate
2. Colour	according to product description
3. Odour, odour threshold	odourless
4. Melting point/freezing point	450 °C
5. Boiling point or initial boiling point and boiling range	no data*
6. Flammability	no data*
7. Lower and upper explosion limit	no data*
8. Flash point	no data*
9. Auto-ignition temperature	not self-flammable
10. Decomposition temperature	450°C
11. pH	approx 450°C
12. Kinematic viscosity	no data*
13. Solubility in water in other solvents	insoluble no data*
14. Partition coefficient n-octanol/water (log value)	no data*
15. Vapour pressure	no data*
16. Density and/or relative density	approx 1.5 g/cm <sup>3</sup> (at 20°C)
17. Relative vapour density	no data*
18. Particle characteristics	no data*

### 9.2. Other information:

#### 9.2.1. Information with regard to physical hazard classes:

The product does not present explosion hazard.

#### 9.2.2. Other safety characteristics:

No other characteristics available.

\*: The manufacturer did not carry out any tests on this parameter for the product or the results of the tests are not available at the time of publication of the data sheet, or the property is not applicable for the product.

**SECTION 10: STABILITY AND REACTIVITY**

- 10.1. Reactivity:**  
No reactivity known.
- 10.2. Chemical stability:**  
Stable under normal conditions.
- 10.3. Possibility of hazardous reactions:**  
No hazardous reactions known.
- 10.4. Conditions to avoid:**  
No conditions to avoid known.
- 10.5. Incompatible materials:**  
No incompatible materials known.
- 10.6. Hazardous decomposition products:**  
No decomposition if used according to the specifications.

**SECTION 11: TOXICOLOGICAL INFORMATION**

- 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008:**  
**Acute toxicity:** Based on available data, the classification criteria are not met.  
**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.  
**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.
- 11.1.1. Summaries of the information derived from the test conducted:**  
No data available.
- 11.1.2. Relevant toxicological properties:**  
No data available.
- 11.1.3. Information on likely routes of exposure:**  
Ingestion, inhalation, skin contact, eye contact.
- 11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:**  
On skin and eye no irritant effect, no sensitizing effect known.
- 11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:**  
The product has no harmful effects on health if properly handled as deflashing media.
- 11.1.6. Interactive effects:**  
No data available.
- 11.1.7. Absence of specific data:**  
No information.
- 11.2. Information on other hazards:**  
**Endocrine disrupting properties:**  
Endocrine disrupting property: The mixture does not contain any components considered to have endocrine disrupting properties in accordance with Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1 % or higher.  
**Other information:**  
No data available.

## SECTION 12: ECOLOGICAL INFORMATION

- 12.1. Toxicity:**  
The mixture is not classified as hazardous for the environment.
- 12.2. Persistence and degradability:**  
No data available.
- 12.3. Bioaccumulative potential:**  
No data available.
- 12.4. Mobility in soil:**  
No data available.
- 12.5. Results of PBT and vPvB assessment:**  
This mixture does not contain any components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1 % or higher in accordance with Annex XIII of Regulation 1907/2006/EC.
- 12.6. Endocrine disrupting properties:**  
Endocrine disrupting property: The mixture does not contain any components considered to have endocrine disrupting properties in accordance with Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1 % or higher.
- 12.7. Other adverse effects:**  
No ecological impact known, if released to the environment.  
Water hazard class (WGK, German regulation, self-classification): 0 – non-hazardous for water.

## SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1. Waste treatment methods:**
- Dispose of in accordance with local regulations.
  - The product must be disposed of collectively after use.
  - Do not discharge into the sewage system or the environment.
  - Dispose of appropriately via industrial waste treatment.
- 13.1.1. Information regarding the disposal of the product:**  
Dispose of in accordance with applicable regulations.  
This product can be deposited or incinerated with domestic waste.  
**List of Waste Code:**  
**07 02 13** waste plastic
- 13.1.2. Information regarding the disposal of the packaging:**  
Dispose of in accordance with applicable regulations.
- 13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:**  
No data available.
- 13.1.4. Sewage disposal:**  
No data available.
- 13.1.5. Special precautions for any recommended waste treatment:**  
No data available.

## SECTION 14: TRANSPORT INFORMATION

**ADR/RID; ADN; IMDG; IATA:**  
Not subject to the conventions of carriage of dangerous goods.

- 14.1. UN number or ID number:**  
No UN or ID number.
- 14.2. UN proper shipping name:**  
No proper shipping name.
- 14.3. Transport hazard class(es):**  
No transport hazard classes.
- 14.4. Packing group:**  
No packing group.
- 14.5. Environmental hazards:**  
No relevant information available.
- 14.6. Special precautions for user:**  
Custom No.: 3909.1000.
- 14.7. Maritime transport in bulk according to IMO instruments:**  
Not applicable.

## SECTION 15: REGULATORY INFORMATION

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

- This product is subject to the conditions set out in entry 78 of Annex XVII to Regulation (EC) No. 1907/2006 (REACH).
- Use in closed industrial systems – exempt from restriction.

**REGULATION (EC) No 1907/2006** OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive (EC) No 1999/45 and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive (EEC) No 76/769 and Commission Directives (EEC) No 91/155, (EEC) No 93/67, (EC) No 93/105 and (EC) No 2000/21

**REGULATION (EC) No 1272/2008** OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives (EEC) No 67/548 and (EC) No 1999/45, and amending Regulation (EC) No 1907/2006

**COMMISSION REGULATION (EU) 2020/878** of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

The mixture does not contain  $\geq 0.1$  % of substances on the candidate list for authorisation of substances of very high concern (SVHC) under Regulation (EC) No 1907/2006 (REACH).

**15.2. Chemical safety assessment:** No information.

## SECTION 16: OTHER INFORMATION

**Information regarding the revision of the safety data sheet:**

The safety data sheet has been revised according to Regulation (EU) 2020/878 (Section 1-16).

The composition and hazard classification of the mixture did not change compared to the previous version.

This safety data sheet supersedes all previous versions according to Annex II of Regulation (EC) No 1907/2006.

**Literature references / data sources:**

Previous version of the safety data sheet (December 2022)

**Methods used for the classification according to Regulation (EC) No 1272/2008:**

Based on the calculation method carried out on the basis of the known hazards of the components, not considered as a hazardous mixture.

**Relevant hazard statements (code and full text) of Sections 2 and 3:** No relevant statements.

**Training advice:** No data available.

**Full text of the abbreviations in the safety data sheet:**

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.

ATE: Acute Toxicity Estimate.

AOX: Adsorbable organic halides.

BCF: Bioconcentration factor.

BOD: Biological Oxygen Demand.

CAS number: Chemical Abstract Service number.

CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

CMR effects: Carcinogenic, mutagenic, reprotoxic effects.

COD: Chemical Oxygen Demand.

CSA: Chemical Safety Assessment.

CSR: Chemical Safety Report.

DNEL: Derived-No-Effect-Level.

ECHA: European Chemical Agency.

EC: European Community.

EC number: EINECS and ELINCS numbers (see also EINECS and ELINCS).

EEC: European Economic Community.

EEA: European Economic Area (EU + Iceland, Liechtenstein and Norway).

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

**Emsodur AG**

EN: European Norm.  
EU: European Union.  
EuPCS: European Product Categorisation System.  
EWC: European Waste Catalogue (replaced by LoW – see below).  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.  
IATA: International Air Transport Association.  
ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.  
IMDG: International Maritime Dangerous Goods.  
IMO: International Maritime Organization.  
IMSBC: International Maritime Solid Bulk Cargoes.  
IUCLID: International Uniform Chemical Information Database.  
IUPAC: International Union of Pure and Applied Chemistry.  
Kow: n-Octanol - Water Partition Coefficient.  
LC50: Lethal concentration resulting in 50 % mortality.  
LD50: Lethal dose resulting in 50 % mortality (median lethal dose).  
LoW: List of Waste.  
LOEC: Lowest Observed Effect Concentration.  
LOEL: Lowest Observed Effect Level.  
NOEC: No Observed Effect Concentration.  
NOEL: No Observed Effect Level.  
NOAEC: No Observed Adverse Effect Concentration.  
NOAEL: No Observed Adverse Effect Level.  
OECD: Organization for Economic Cooperation and Development.  
OSHA: Occupational Safety and Health Administration.  
PBT: Persistent, Bioaccumulative and Toxic.  
PNEC: Predicted No Effect Concentration.  
QSAR: Quantitative Structure Activity Relationship.  
REACH: Regulation 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.  
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.  
SCBA: Self Contained Breathing Apparatus.  
SDS: Safety Data Sheet.  
STOT: Specific Target Organ Toxicity.  
SVHC: Substances of Very High Concern.  
UN: United Nations.  
UVCB: Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials.  
VOC: Volatile Organic Compound.  
vPvB: very Persistent and very Bioaccumulative.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.

The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information.

The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.

Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product.

It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.