

SAFETY DATA SHEET:

Ref No.: DS030

PRODUCT NAME/S: Professional Ice Melt[™] Technical Treated

1 Identification of the Preparation and of the Company

1.1 Identification of the Preparation

Product name: Urea, Technical Treated/Coated Chemical Formula : (NH₂)₂CO Use of the
Substance/preparation: De-Icing & Prevention of Ice Formation
REACH registration No. 01-2119463277-33

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

Industrial use: De-Icing Agent (SU0-2)

1.3 Company Identification

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2 Hazards Identification

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

Classification: Not Classified

2.2 Label Element

P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.

3 Composition/Information on Ingredients

3.1 Chemical Name

Chemical Characterisation: Urea

Substance / Product Identification

CAS-No. 57-13-6
EX No: 200-315-5

Chemical name: Urea >97 %
Quantity Classification: 200-315-5
Classification : Not Classified

The preparation is not classified as dangerous according to
EC Regulations E 1272/2008 (CLP/GHS)

See 11 for more detailed information on health effects and symptoms.

4 First Aid Measures (Solution)

- General Information:** In case of persisting adverse effects, consult a physician. Change contaminated, saturated clothing.
- After Inhalation:** Avoid breathing dust. If inhaled, remove victim to fresh air immediately. Drink water but DO NOT DRINK MILK. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
- Skin Contact:** Avoid prolonged or repeated contact with skin. After handling, always wash hands thoroughly with soap and warm water.
- Eye Contact:** In case of contact with eyes, rinse immediately with plenty of water for more than 15 minutes. Get medical attention if irritation persists. See section 11 for more detailed information on health effects and symptoms.
- After Ingestion:** Seek medical advice immediately. Rinse mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

5 Fire Fighting Measures

Not a distinctive fire hazard – product is non-combustible.

5.1 Special Fire or Explosion Hazards

Hazardous thermal: These products are: carbon oxides (CO1 CO2) Decomposition products nitrogen oxides (NO, NO2 etc.), ammonia(NH3)

5.2 Suitable Extinguishing Media

Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas. In case of fire, use water spray (fog), foam or dry chemical. Do not use jetted water as this may spread fire.

5.3 Special Exposure Hazards Arising from the Substance, or Preparation Itself, Combustion Products, Resulting Gases

In the event of fire, the following can be released: Nitrogen Oxides (NOx), Carbon Dioxide (CO2), Carbon Monoxide (CO)

5.3 Other Recommendations

Special exposure hazards: Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Avoid breathing dusts, vapours or fumes from burning materials. In case of inhalation of decomposition products in a fire, symptoms may be delayed.

6 Accidental Release Measures – (Bulk)

- Personal Precautions:** Use suitable protective equipment (sections 7 & 8). Follow all Fire-fighting procedures (section 5). Ensure adequate ventilation. Avoid dust formation.
- Environmental precautions:** Do not discharge into the drains/surface waters/groundwater.
- Clean Up Methods** Take up mechanically and send for disposal. See section 13 for waste disposal information.

7 Handling & Storage

Handling: Provide good ventilation of working area (local exhaust ventilation, if necessary). Avoid creating dust when handling and avoid all possible sources of ignition (spark or flame). Do not smoke. Avoid contamination by any source including metals, dust and organic materials.

Advice on protection against fire and explosion

No special measures necessary.

Storage: Requirements for Storage Rooms and Vessels

Store product in closed containers.

Keep container tightly closed and store in cool, well ventilated location. KEEP DRY.

8 Exposure Controls / Personal Protection

Respiratory Protection: If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn.

Hand protection: In case of intensive contact, wear protective gloves (EN 374). Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective glove should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn.

Design operations thus to avoid permanent use of protective gloves.

Appropriate material	nitrile
Material thickness	> 0,3 mm
Breakthrough time	> 480 mm

Eye Protection: Safety glasses (EN 166)

Skin Protection: Normal chemical work clothing. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. If clothing is heavily contaminated, put through a wash cycle.

9 Physical & Chemical Properties

Appearance:	Powder, prills, granules
Odour:	Odourless or slight ammonia
Colour:	White
Boiling point/boiling range:	N/A
Melting point/melting range:	appr. 133°C
Density:	g/cm ³ - 1.323g/cm ³
Solubility:	Easily soluble in cold water (20°C). Value: 1088 g/1
pH value	9.2 – 9.5
	Reference temperature concentration 100g/L
Octanol/water partition coefficient (log Pow)	Value: -2,97

10 Stability & Reactivity

Stable under recommended storage and handling conditions (see section 7)

Conditions to avoid: Reactions with alkalis.
Highly reactive with perchlorate.
Urea reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride.
Contact with strong bases liberates ammonia

Hazardous decomposition products:
These products are: Hydrocyanic acids, carbon oxides (CO1, CO2) nitrogen oxides (NO1 NO2 etc.) ammonia (NH3)

Thermal decomposition: No decomposition below 130°C

11 Toxicological Information

Potential acute health effects:

Acute Oral: LD50 Rat 8471 mg/Kg. Species: Rat. Source: RTECS
Acute Dermal: LD50 Rat 8200 mg/Kg May cause eye and skin irritation. Species: Rat. Source: IUCLID
Acute Inhalation: No data available
Irritant/Corrosive Effects: Effect on skin: Non-Irritant
Effect on eyes: Non-Irritant
Sensitisation: Non-sensitising.

In practise, inhalation of the dust may irritate the nasal tract. Eye contact may cause mechanical irritation through dust particles. When used as directed, adverse health effects are considered unlikely.

12 Ecological Information

Urea is highly soluble in water therefore it is rapidly diluted in water courses and leached from soils. When dissolved, urea acts as a plant nutrient.

Adverse effects

The product is not expected to harm the environment when used properly according to directions.

Ecotoxicity:

Fish Toxicity: LC50 Leuciscus idus: 6810 mg/L
Duration: 96 hours Source: IUCLID

Daphnia Toxicity: EC50 Daphnia magna: 1000 mg/L
Duration: 24 Hours Source: IUCLID

Persistence and Degradability

Biodegradability: The product is biodegradable and does not show any bioaccumulation phenomena.

Other information: The material has no harmful effect on the environment.

13 Disposal Information (Bulk)

Product Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

Hazardous Waste Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

14 Transport Information

Not classified as hazardous material according to UN orange book and international transport codes, e.g. ADR (road), RID (rail), AND (inland waterways) and IMDG (sea)

15 Regulatory Information

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

EU Regulations: Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks

Annex 1, part 1 + 2: not mentioned. With regards to possibly appropriate decomposition products see Chapter 10.

16 Other Information

NOTE:

The information is based on our current knowledge however it does not represent a guarantee of product properties nor does it create any legal obligation.

Sources of key data used to compile the data sheet

EC Directive 67/548/EC resp. 99/45/EC as amended in each case.

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EC.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, and indicated directly in the corresponding chapter.

END

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