

# UREA FEED GRADE

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

### 1.1 Product identifier

Product name:	Granular urea, crystalline urea, industrial urea, animal feed urea
Chemical name:	Urea
Synonyms, trade names:	Carbamida, carbonildiamida
REACH:	01-2119463277-330022
CAS number :	57-13-6
Número de la EU (Anexo 1):	NA
Chemical formula	CH <sub>4</sub> N <sub>2</sub> O

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

Identified uses	Fertilizer, formulation of mixtures, as an intermediate substance in various industrial processes, process additive as auxiliary agent, laboratory chemical product, cleaning product, additive for animal feed, treatment and reduction of NOx, in cosmetics ...
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### 1.3 Company identification

Supplier:	SAISA CHEMICALS S.A.
Address:	C/ Juan Hurtado de Mendoza, 15, 28036 (Madrid) ESPAÑA.
Phone number:	+00 34 91 345 94 44
E-mail:	saisa@saisa.es

### 1.4 Emergency phone

Emergency phone:	00 34 91 562 04 20
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## SECCIÓN 2: Identificación de los riesgos

### 2.1 Clasificación de la sustancia o de la mezcla

Clasificación:	De acuerdo con la Directiva 548/67/CEE: no clasificado
	CE 1272/2008 (CLP): No clasificado

### 2.2 Elementos de la etiqueta

Pictogramas	Palabras de advertencia	Indicaciones de peligro	Consejos de prudencia
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### 2.3 Otros riesgos.

Criterio PBT/mPmB: No disponible

**Otros peligros que no implican la clasificación del producto.** Peligros físicos y químicos: No es combustible. Cuando se calienta, funde. Cuando es fuertemente calentada, se descompone desprendiendo humos tóxicos que contienen NOx, CO2 y amoníaco.

#### Peligros para la salud:

La urea es básicamente un producto inocuo cuando se maneja correctamente. No obstante deben observarse los siguientes aspectos:

Contacto con la piel y los ojos: El contacto prolongado puede causar molestia

Ingestión: Pequeñas cantidades es improbable que causen efectos tóxicos. En grandes cantidades, puede provocar desórdenes en el tracto gastrointestinal.

Inhalación: altas concentraciones de polvo en suspensión puede causar irritación en la nariz y tracto respiratorio superior con síntomas tales como dolor de garganta y tos.

Efectos a largo plazo: No son conocidos efectos adversos.

Otros: fuego y calentamiento: La inhalación de gases de descomposición que contienen óxidos de nitrógeno y amoníaco, pueden causar irritación y efectos corrosivos en el sistema respiratorio.

#### Peligros para el medio ambiente:

La urea es un fertilizante nitrogenado. Los grandes derrames pueden causar impactos adversos en el medio ambiente como la eutrofización (desarrollo indeseado de la flora) en las aguas superficiales confinadas. Debido a las reacciones químicas en el suelo se puede liberar amoníaco (ver sección 12)

## SECCIÓN 3: Composición/Información sobre los componentes

### 3.1 Sustancias.

Nombre del producto:	UREA
Nº CE:	200-315-5
Nº CAS	57-13-6
Número CAS :	497-19-8
% (p/p)	>98%
Nombre IUPAC	Urea

## SECTION 4: First Aid.

### 4.1 Description of first Aid.

General:	Immediate medical attention is not necessary
Inhalación:	Remove it from the source of dust emission. Get medical attention if large amounts of dust have been breathed in.
Ingestion:	Do not induce vomiting Rinse mouth and give water or milk to drink. Get medical attention if more than a small amount of powder has been ingested.
Sky contact	Wash the affected area with water
Eye contact	Wash or irrigate the eyes with plenty of water for at least 10 minutes, even behind the eyelids. Remove the lenses if you wear them and it is easy to do so. Get medical attention if eye irritation persists.

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

General information	Some effects on the lung can be delayed.
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### 4.3 Indication of any necessary medical attention and special treatments.

Notes to physician	Inhalation of gases from fire or thermal decomposition, which contain nitrogen oxides and ammonia, can cause irritation and corrosive effects on the respiratory system.
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## SECTION 5: Extinguishing media

### 5.1. Extinguishing media.

Suitable extinguishing media

Use plenty of water

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

Special risks:

Do not allow molten fertilizer to enter drains

Thermal decomposition hazards and combustion products:

Thermal decomposition or combustion of products may include the following substances: harmful gases or vapors

### 5.3. Recommendations for firefighters.

Protective measures during fire fighting

Open doors and windows of the enclosure to give maximum ventilation. Avoid breathing toxic fumes. Get downwind in relation to the fire. Avoid any contamination of the fertilizer by incompatible materials.

Special protection in fire fighting:

Wear a self-contained breathing apparatus in case of fumes

## SECTION 6: Measures in case of accidental spillage

### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid walking through spilled product and exposure to dust

### 6.2. Environmental precautions.

Environmental precautions

Take care to avoid contamination of waterways and drains. Inform the competent authorities in case of accidental contamination of water courses..

### 6.3. Methods and material for containment and cleaning up.

Cleaning methods	Any spilled fertilizer should be quickly cleaned up, swept up, and placed in a clean, open-mouthed container labeled for safe disposal avoiding dust formation.,
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### 6.4. Reference to other sections

Reference to other sections:	See section 1 for contact details, section 8 for personal protective equipment and section 13 for waste disposal
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## SECTION 7: Handling and storage.

### 7.1. Precautions for safe handling

Precautions of use:	Avoid excessive generation of dust. Avoid contamination by combustible materials (eg, gas oil, grease, etc.) and other incompatible materials (eg ammonium nitrate). Avoid unnecessary exposure of the product to the atmosphere to prevent moisture absorption. When handling the product for long periods, use appropriate personal protective equipment (eg gloves). Clean the facilities carefully before carrying out maintenance or repair operations.
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### 7.2. Conditions for safe storage, including any incompatibilities.

Precautions of use:	Keep away from sources of heat and flames. Always keep it away from combustible materials and substances mentioned in section 10. In the field, make sure that the fertilizer is not stored near hay, straw, grain, diesel, etc. When stored in bulk, ensure strict housekeeping standards are adhered to. Do not allow smoking or the use of naked portable lamps in the storage area. Restrict the size of the piles or heaps (in accordance with the regulations in force) and leave a free space of at least 1 meter around the piles of sacks or heaps). Any building used for storage should be dry and well ventilated.
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Packing materials recommended:	The appropriate materials for the containers are: stainless steel. AISI 304 and 316, glass and synthetic plastics. Do not use non-ferrous metals and alloys (copper and its alloys, zinc, lead ...)
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### 7.3. Specific end use (es).

Specific end use (es):	The identified uses for this product are detailed in section 1.2 Note: stability and reactivity see section 10.
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## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

Occupational exposure limit values	Component	CAS	
	Urea	57-13-6	No establecido

Derived from ISQ	DNEL	Worker				
			systemic	industrial	professional	consumer
		Oral	short term	NA	NA	42 mg/ kg pc/día
			large term			
Inhalational	short term	292 mg/m <sup>2</sup>	292 mg/m <sup>2</sup>	125 mg/m <sup>2</sup>		
	large term					
Dermal	short term	580 mg/kg pc/day	580 mg/kg pc/day	580 mg/kg pc/day		
	large term					

  

PNEC	water	air	floor	microbiological	sediment	oral
	fresh surface water: 0.0047 mg/l	not available	not available	not required	not required	not required

### 8.2. Exposure controls.

Engineering measures and hygienic controls:

Avoid high concentrations of dust and provide ventilation where necessary. During handling do not eat, drink or smoke. Wash your hands after handling the product and before eating, drinking or smoking. Use the lavatory at the end of the workday.

Individual protection

Eyes: use appropriate safety glasses depending on the task.

Skin and body: work clothes

Hands: wear suitable gloves (eg rubber or leather) when handling the product for long periods of time.

Respiratory: If the dust concentration is high and / or the ventilation is insufficient, use a dust mask or respirator with a suitable filter.

Environmental exposure controls

See section 6. Advice on personal protection applies to high levels of exposure. Choose personal protections adapted to the risks of exposure

## SECTION 9: Physical and chemical properties

### 9.1. Basic information on physical and chemical properties.

Appearance:	White solid
Colour:	White:
Odor:	Odorless
pH:	pH aqueous solution (100 g/l) a 20° 9-10
Melting point:	134° C (It decomposes)
Initial boiling point and range	It decomposes > 134°C
Inflation point:	Not applicable.
Evaporation rate:	Not applicable.
Inflammability (solid, gas):	Not applicable.
Upper/lower flammability limits	Not applicable..
Vapor pressure at 20°C	Not applicable..
Vapor density	Not applicable.
Apparent density at 20°C	700-800 kg/m³
Water solubility	Extremely soluble, ej 624 g/l a 20°C
Partition coefficient n-octanol / water	LgPow < -1,73
Auto-ignition temperature	Not applicable.
Decomposition temperature:	It decomposes > 134°C
Explosive properties:	Urea by itself does not present an explosion hazard. May form explosive mixtures with strong acids (nitric or perchloric) or nitrates. When urea is heated under strong confinement it can have explosive behavior..

### 9.2. Other information.

Other information:	Molecular weight Fat solubility 33,3% (p/p) in glicerol.
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## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Reactivity	It is stable under normal conditions of storage, handling and use (see section 7)
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### 10.2. Chemical stability

Stability	Es estable bajo condiciones normales de almacenamiento, manipulación y uso (ver sec 7)
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### 10.3. Possibility of dangerous reactions

Possibility of dangerous reactions

When heated above 134°C it decomposes, giving off NO<sub>x</sub> and ammonia.  
 Contamination with incompatible materials.

### 10.4. Conditions to avoid

Conditions to avoid:

Proximity to sources of heat or fire.  
 Contamination by incompatible materials. Heating above 134° (decomposition to gases)  
 Unnecessary exposure to the atmosphere. Heating under confinement. Welding or thermal work on equipment or plants that may contain traces of fertilizer, without first having been washed to remove product traces.

### 10.5. Incompatible materials

Materials to avoid

Combustible materials, strong oxidants, acids, alkalis, nitrates, nitrites, sodium or calcium hypochlorite. Mixing solid urea with solid ammonium nitrate produces a sludge. Urea reacts with sodium or calcium hypochlorite to form explosive nitrogen trichloride.

### 10.6. Hazardous decomposition products

Hazardous decomposition products

In case of fire: see section 5  
 When strongly heated it melts and decomposes, releasing toxic gases (eg NO<sub>x</sub>, ammonia). See section 2 and 9.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

Not available.

Acute toxicity

Componente	Nº CAS	Método	Especies	Vía	Resultado
Urea	57-13-6	OECD 401	rata	oral	LD50: 14,3 -15 mg/kg pc

Sensitization:

No known significant effects or critical hazards

Chronic toxicity

No known significant effects or critical hazards

Carcinogenicity

No known significant effects or critical hazards

Mutagenicity

No known significant effects or critical hazards

Reproductive toxicity

No known significant effects or critical hazards

Notes:

If the product is handled and used correctly it is considered unlikely that adverse health effects will occur.



## SECTION 12: Ecological information

### 12.1. Toxicity

Acoustic toxicity:

Componente	Nº CAS	(leuciscus idus)	(daphnia magna)	aeruginosa
Urea	57-13-6	Corto plazo	CL50 (96h) > 6810 mg/l	CL50 (24h) > 10000 r CL50 (192h) = 47 mg/l

### 12.2. Persistence and degradability.

Persistence and degradability

Componente	Nº CAS	Vida acuática	Fotólisis	Biodegradabilidad
Urea	57-13-6	No disponible	No disponible	10,9 mg/l en 1h a 20°C

Componente	Nº CAS	Coficiente de reparto octanol-agua (kow)	Fatos de bioconcentración (BCF)	Potencial de bioacumulación
Urea	57-13-6		-1,73 -	Bajo

### 12.3. Bioaccumulative potential

#### 12.4. Mobility in the soil.

Componente	Nº CAS	Resultado
Urea	57-13-6	Soluble en agua

#### 12.5. Results of PBT and vPvB evaluation

Results de PBT y vPvB	Not available
Otros efectos adversos	No hay información

#### 12.6. Other adverse effects

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

General information	Depending on the degree of contamination, dispose of as fertilizer or at an authorized waste facility. Apply local or national legislation for its elimination Empty bags must be returned for recycling or made available as non-hazardous material (see section 7)
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### SECTION 14: Transport information.

General:	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR / RID)
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#### 14.1. UN Number.

Not applicable.

#### 14.2. UN proper shipping name

Not applicable.

#### 14.3. Dangerous transport class (es)

No transportation warning signs

#### 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazard

Hazardous pollutant / marine pollutant

No

#### 14.6. Special precautions for users.

Not applicable.

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk according to  
Annex II of MARPOL 73/78  
and the IBC Code

Not applicable.

### SECTION 15: Regulatory .

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

EU legislation:

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, of December 18, 2006, relative to the Registration, Evaluation, Authorization and Restriction of chemical substances (REACH) (modified).  
Regulation (EU) No. 2015/830  
Regulation (CE) n° 1272/2008 of the European Parliament and of the Council of December 16, 2008 on classification, labeling and packaging of substances and mixtures (modified).