

## UREA FEED GRADE

### RUBRIQUE 1: Identification de la substance/du mélange et de la société/l'entreprise

#### 1.1. Étiquette d'un produit

Nom du produit :	Urée granulaire, urée cristalline, urée industrielle, urée alimentaire animale.
Nom chimique:	Urea
Synonyms, trade names:	Carbamide, carbonyldiamide
Numéro d'enregistrement REACH :	01-2119463277-330022
Numero CAS:	57-13-6
Numéro UE (Annexe 1):	NA
Formule chimique	CH <sub>4</sub> N <sub>2</sub> O

#### 1.2. Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées

Utilisations identifiées	Engrais, formulation de mélanges, comme substance intermédiaire dans divers procédés industriels, additif de procédé comme agent auxiliaire, produit chimique de laboratoire, produit de nettoyage, additif pour l'alimentation animale, traitement et réduction des NOx dans les cosmétiques.
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#### 1.3. Identification de l'entreprise

Fournisseur:	SAISA CHEMICALS S.A.
Adresse:	C. JUAN HURTADO DE MENDOZA 15, 1º POST 28036 MADRID (ESPAÑA)
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### RUBRIQUE 2 : Identification des dangers

#### 2.1. Classification de la substance ou du mélange

Classification	Conformément au Règlement CE 1272/2008 (CLP)
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#### 2.2. Éléments d'étiquetage

Pictogrammes	-
Mots d'avertissement:	-
Mentions de danger:	-
Conseils de précaution	-

#### 2.3. Autres risques

Critères PBT/vPvB : Non disponible

Autres dangers qui n'impliquent pas la classification du produit : dangers physiques et chimiques. Ce n'est pas du carburant. Lorsqu'il est chauffé, il fond. Lorsqu'il est fortement chauffé, il se décompose en dégageant des fumées toxiques contenant du NOx et du CO<sub>2</sub> et de l'ammoniac.

**Danger pour la santé:**

L'urée est fondamentalement un produit inoffensif lorsqu'il est manipulé correctement. Cependant, les aspects suivants doivent être respectés :

**Contact avec la peau et les yeux :** Un contact prolongé peut causer de l'inconfort.

**Ingestion:** De petites quantités sont peu susceptibles de provoquer des effets toxiques. En grande quantité, il peut provoquer des troubles du tractus gastro-intestinal.

**Inhalation:** Des concentrations élevées de poussière en suspension peuvent provoquer une irritation du nez et des voies respiratoires supérieures accompagnée de symptômes tels que mal de gorge et toux.

**Effets à long terme:** aucun effet indésirable connu.

**Autres:** feu et chauffage. L'inhalation de gaz de décomposition contenant des oxydes d'azote et de l'ammoniac peut provoquer des irritations et des effets corrosifs sur le système respiratoire.

**Dangers environnementaux:** L'urée est un engrais azoté. Les déversements importants peuvent avoir des effets néfastes sur l'environnement tels que l'eutrophisation (développement involontaire de la flore) dans les eaux de surface confinées. En raison de réactions chimiques dans le sol, de l'ammoniac peut être libéré (voir section 12).

### RUBRIQUE 3: Composition/informations sur les composants

#### 3.1. Matières

Nom du produit:	UREA
Nº CE:	200-315-5
Nº CAS:	57-13-6
% (p/p)	> 98%
Nom IUPAC:	Urea

### RUBRIQUE 4 : Premiers soins.

#### 4.1. Description des premiers secours.

General:	Une attention médicale immédiate n'est pas nécessaire.
Inhalation:	Retirez-le de la source d'émission de poussière. Consulter un médecin si de grandes quantités de poussière ont été inhalées.
Ingestion:	Ne pas faire vomir. Rincer la bouche et faire boire de l'eau ou du lait. Consulter un médecin si plus qu'une petite quantité de poudre a été avalée.
Contact avec la peau:	Laver la zone affectée avec de l'eau
Lentilles de contact:	Rincer ou irriguer les yeux à grande eau pendant au moins 10 minutes, y compris derrière les paupières. Extrayez les lentilles si vous les portez et c'est facile à faire. Consulter un médecin si l'irritation oculaire persiste.

#### 4.2. Indication de toute attention médicale nécessaire et traitement spécial.

Notes au médecin	Inhalation de gaz provenant d'un incendie ou d'une décomposition thermique, qui contiennent des oxydes d'azote et de l'ammoniac, peut provoquer une irritation et des effets corrosifs sur le système respiratoire.
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### RUBRIQUE 5 : Moyens d'extinction

#### 5.1. Extinguishing media

Suitable extinguishing media:	Use plenty of water
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#### 5.2. Specific hazards arising from the substance or mixture

Special risks:	Do not allow melted fertilizer to enter drains.
Hazards of thermal decomposition and combustion products:	Nitrogen oxide, ammonia and carbon dioxide.

#### 5.3. Recommendations for firefighters

Protective measures during fire fighting:	Open doors and windows of the enclosure to provide maximum ventilation. Avoid breathing toxic fumes. Put in favor of the wind the reaction to the fire. Avoid any contamination of the fertilizer by incompatible materials.
Special protection in fire fighting:	Wear self-contained breathing apparatus in the event of fumes.

### SECTION 6: Measures in case of accidental spillage.

#### 6.1. Measures in case of accidental spill

Personal precautions:	Avoid walking through spilled product and exposure to dust.
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#### 6.2. Environmental precautions

Environmental precautions:	Take care to avoid contamination of watercourses and drains. Inform the competent authorities in case of accidental contamination of watercourses.
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#### 6.3. Methods and material for containment and cleaning.

Cleaning methods:	Any fertilizer spillage should be promptly cleaned up, swept up and placed in a clean, open-mouth, labeled container for safe disposal to prevent 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 18 for waste disposal.
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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling.

Precautions for use:	Avoid excessive generation of dust. Avoid contamination by combustible materials (eg diesel, 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, wear appropriate personal protective equipment (eg gloves). Carefully clean the facilities before carrying out maintenance or repair operations.
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#### 7.2. Conditions for safe storage, including possible incompatibilities

Precautions for use:	Place 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, diesel grain, etc. When storing in bulk, ensure that strict housekeeping standards are followed. Do not allow smoking or the use of naked portable lamps in the storage area. Restrict the size of the piles or piles (in accordance with current regulations) and leave a free space of at least 1 meter around the piles of bags or piles). Any building used for storage should be dry and well ventilated.
Recommended packing materials:	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...)

### 7.3. Specific end use(s)

Specific end use(s)	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	UREA							
CAS	57-13-6							
Derivado del ISQ	DNEL	TRABAJADOR				CONSUMIDOR		
		Oral	SISTEMICO	INDUSTRIAL	PROFESIONAL		42 mg/Kg pc/día	
			CORTO PLAZO	NO APLICA	NO APLICA			
		Inhalatorio	CORTO PLAZO	292 mg/m <sup>3</sup>	292 mg/m <sup>3</sup>	125 mg/m <sup>3</sup>		
			LARGO PLAZO					
		Dermal	CORTO PLAZO	580 mg /kg pc/día	580 mg /kg pc/día	580 mg /kg pc/día		
	LARGO PLAZO							
	PNEC	ambiente						
		agua		aire	suelo	microbiológico	sedimento	oral
		Agua superficial dulce: 0.047 mg/l	No disponible	No disponible	No requerido	No requerido	No requerido	

### 8.2. Exposure controls.

Ingenry 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 sink at the end of the workday.
Individual protection:	<b>Eyes:</b> Wear appropriate safety glasses depending on the tasks. <b>Skin and body:</b> work clothes. <b>Hand:</b> Wear suitable gloves (eg rubber or leather) when handling the product for long periods of time. <b>Respiratory:</b> if the concentration of dust is high and/or ventilation is insufficient, use a dust mask or respirator with a suitable filter.
Environmental exposure controls	See section 6. Advice regarding personal protection is valid for high levels of exposure. Choose the protections adapted to the risks of exposure.

## SECTION 9: Physical and chemical properties

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

Appearance	Solid. White.
Colour:	White
Odour:	Odourless
pH:	pH aqueous solution (100g/l) a 20º 9-10
Melting point:	134°C (It decomposes)
Initial boiling point and range:	It decomposes > 134°C
Inflation point:	NA
Evaporation rate:	NA
Flammability (solid, gas):	NA
Upper/lower flammability limit:	NA
Steam pressure at 20°C:	NA
Steam pressure at 20°C:	NA
Apparent density at 20°C:	700-800 kg/m <sup>3</sup>
Water solubility:	Extremadamente soluble, ej 624 g/l a 20°C
Partition coefficient n-octanol/water:	LgPow < - 1,73
Auto-ignition temperature:	NA
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 and perchloric) or nitrates. When urea is heated under strong confinement, it can become explosive.

### 9.2. Other information.

Other information:	Molecular weight Solubility in fats: 33.3% (w/w) in glycerol.
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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:	It is stable under normal conditions of storage, handling and use (see section 7).
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### 10.3. Possibilities of chemical reactions

Possibilities of chemical reactions	When heated above 134°C it decomposes giving off NOx and ammonia. Contamination with incompatible materials.
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### 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 atmosphere. Heating under confinement. Welding or thermal work on plant equipment that may contain traces of fertilizer, without first having been washed to remove traces of the product.
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### 10.5. Incompatible materials

Materials should be avoided	Combustible materials, strong oxidizers, acids, alkalis, nitrates, nitrites, sodium or calcium hypochlorite. Mixing solid urea with solid ammonium nitrate produces a slime. Urea reacts with sodium or calcium hypochlorite to form explosive nitrogen trichloride.
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### 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 NOx, ammonia). See section 2 and 9.
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution:	Not available						
<b>Acute toxicity</b>							
	Componente	Nº CAS	Método	Especies	Vía	Resultado	
	Urea	57-13-6	OECD 401	rata	oral	LD50: 14,3 - 15 mg/kg pc	
<b>Sensitization:</b>							
Sensitization:	No known significant effects or critical hazards						
<b>Chronic toxicity:</b>							
Chronic toxicity:	No known significant effects or critical hazards						
<b>Carcinogenicity:</b>							
Carcinogenicity:	No known significant effects or critical hazards						
<b>Mutagenicity:</b>							
Mutagenicity:	No known significant effects or critical hazards						
<b>Reproductive toxicity:</b>							
Reproductive toxicity:	Based on available data the classification criteria are not met						
<b>Notes:</b>							
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

Aquatic toxicity:	Nº CAS	Peces (leuciscus idus)	Crustáceos (daphnia magna)	Algas (microcystis aeruginosa)
	57-13-6	CL50 (96h) > 6810 mg/l	CL50 (24h) > 10000	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

### 12.3. Bioaccumulative potential

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

### 12.4. Soil mobility

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

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

Results of PBT and vPvB assessment.	Not available
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#### 12.6. Other adverse effects

Other adverse effects	No info
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#### 12.7. Other adverse effects

Other adverse effects:	None known.
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### SECCIÓN 13: Disposal Considerations

#### 13.1. Waste treatment methods

Waste treatment methods	Depending on the degree of contamination, dispose of as fertilizer or at a licensed 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: Transportation 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	
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#### 14.2. UN shipping designation

Not applicable	
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#### 14.3. Dangerous transport class(es)

No transportation warning sign	
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#### 14.4. Packaging group

Not applicable	
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#### 14.5. Environmental hazards

Hazardous polluting substance/marine pollutant. Do not.	
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#### 14.6. Special precautions for users

Not applicable	
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#### 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
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### SECCIÓN 15: Regulatory information

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

EU legislation	Regulation (CE) No 1907/2006 of the European Parliament and of the Council, of December 18, 2006, regarding Registration, Evaluation, Authorization and restriction (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)
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#### 15.2. Chemical Safety Assessment

Chemical Safety Assessment carried out for urea as a substance
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### SECTION 16: Others information

Hazard statements	
Precautionary advice:	P102: Keep out of reach of children P270: Do not eat, drink or smoke when using this
Bibliographic references and data sources: Chemical safety assessment of urea. Guidance documents EFMA/FERTILIZER EUROPE TFI HPV data; NOTOX *Regulation (EU) 2015/830 *Regulation (CE) 1907/2006 *Regulation (EU) 1272/2008	

Abbreviations and acronyms
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VLA-ED: Environmental limit value (daily exposure)
VLA-EC: Environmental limit value (short duration)
NOAEL: No Observed Adverse Effect Dose
LD50: lethal dose 50% LC50: lethal concentration 50%
DNEL: Derived No Effect Concentration
PNEC: Predicted No Effect Concentration
LOEC: lowest observed effect concentration
NOEC: No Observed Effects Concentration
NOAEC: No Observed Adverse Effect Concentration