SAFETY DATA SHEET

According to 29 CFR 1910.1200

UREA

Date of issue: December 28, 2011 **Revision date:** September 01, 2023 **Version.** 5

SECTION 1.- IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product form Substance

Substance name Urea

CAS No. 57-13-6

Formula CH_4N_2O

Synonyms Urea Fertilizer 46-0-0

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

Use of the substance/mixture Fertilizers

1.3 Details of the supplier of the safety data sheet

Pima Chemicals & Fertilizers, LLC
1370 Nogales, Az.
Tel. 011 52 (662) 182-0559
rgutierrez@qpima.com
www.qpima.com

Química Pima, S.A. de C.V.
Del Cobre 20, Parque Industrial Hermosillo.
Hermosillo, Sonora, México. C.P. 83297
Tel. 011 (662) 251-0010 ventas@qpima.com

1.4 Emergency telephone number

Emergency number CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

SECTION 2.- HAZARD IDENTIFICATION

2.1. GHS-US classification

Serious eye damage/eye irritation 2B H320

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) *No pictogram*

Signal word (GHS-US): Warning

Hazard statement (GHS-US): H320 Causes eye irritation.

Precautionary statements (GHS-US): P264 Wash exposed skin thoroughly after handling.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards No additional information available

2.4 Unknown acute toxicity (GHS-US) Not applicable.

SECTION 3.- COMPOSICION / INFORMATION OF INGREDIENTS

3.1 Substance Not applicable

3.2 Mixture

Name	*Product identifier*	*%*	*GHS-US classification*
Urea	(CAS No.) 57-13-6	100	Eye Irrit. 2B, H320

SECTION 4.- FIRST AID MEASURE

4.1. Description of first air measure

First-aid measures general

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

First-aid measures after skin contact

Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after inhalation

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. Allow breathing of fresh air. Allow the victim to rest.

First-aid measures after ingestion

Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/injuries after inhalation AFTER INHALATION OF DUST: Dry/sore throat. Coughing.

Symptoms/injuries after skin contact No effects known.

Symptoms/injuries after eye contact Redness of the eye tissue. Causes eye irritation.

Symptoms/injuries after ingestion Nausea. Vomiting. Cramps/uncontrolled muscular contractions.

Chronic symptoms No effects known.

4.3. Indications of any immediate medical attention and special treatment needed

No additional information available

SECTION 5.- FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media EXTINGUISHING MEDIA FOR SURROUNDING FIRES: All extinguishing media allowed. Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media No unsuitable extinguishing media known. Do not use a heavy water stream.

5.2. Special hazard arising from the substance or mixture

Fire hazard	DIRECT FIRE HAZARD. Noncombustible. INDIRECT FIRE HAZARD. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	INDIRECT EXPLOSION HAZARD. Reactions with explosion hazards: see "Reactivity Hazard".
Reactivity	Decomposes slowly on exposure to water (moisture) and in moist air: release of corrosive gases/vapors (ammonia). On heating: release of toxic/corrosive/combustible gases/vapors (ammonia). On burning: release of toxic and corrosive gases/vapors (nitrous vapors, carbon monoxide - carbon dioxide). Violent to explosive reaction with (some) halogens compounds: release of heat. Reacts with many compounds e.g.: with (strong) oxidizers: (increased) risk of fire/explosion.

5.3. Advice for firefighters

Precautionary measures fire	Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighborhood close doors and windows.
Firefighting instructions	Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	Heat/fire exposure: compressed air/oxygen apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6.- ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. See "Material-Handling" to select protective clothing.
Emergency procedures	Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes. In case of reactivity hazard: consider evacuation. Evacuate unnecessary personnel.
Measures in case of dust release	In case of dust production: keep upwind. Dust production: have neighborhood close doors and windows.

6.1.2. For emergency responders

Protective equipment	Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up.

Method for containment	Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.
Methods for cleaning up	Stop dust cloud by covering with sand/earth. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling. On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

Other information Dispose of materials or solid residues at an authorized site.

6.4 Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7.- HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling	Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Avoid raising dust. Use earthed equipment. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Keep only in the original container in a cool, well-ventilated place away from : Keep container closed when not in use.
Incompatible products	Strong bases. Strong acids.
Heat-ignition	KEEP SUBSTANCE AWAY FROM: heat sources. Oxidizing agents. (Strong) acids. Halogens. Water/moisture.
Storage area	Store in a dry area. Keep out of direct sunlight. Keep container in a well-ventilated place. Meet the legal requirements.
Special rules on packaging	SPECIAL REQUIREMENTS: hermetical. watertight. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packaging's in solid containers.
Packaging materials	SUITABLE MATERIAL: stainless steel. synthetic material. glass. cardboard. wood. MATERIAL TO AVOID: carbon steel. copper. bronze.

7.3 Specific end use(s) No additional information available.

SECTION 8.- EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	*ACGIH TLV*	*OSHA PEL*	*NIOSH IDLH*
Urea 57-13-6	Not available	Not available	Not available

8.2. Exposure controls

Appropriate engineering controls	Ensure good ventilation of the work station. Extraction to remove dust at its source. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Personal protective equipment	Avoid all unnecessary exposure.
Material for protective clothing	GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: butyl rubber. chloroprene rubber. PVC. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: neoprene, nitrile rubber, Viton.
Hand protection	Gloves. Wear protective gloves.
Eye protection	Face shield. In case of dust production: protective goggles. Chemical goggles or safety glasses.
Skin and body protection	Protective clothing. In case of dust production: head/neck protection. In case of dust production: dustproof clothing.

Respiratory protection	Dust production: dust mask with filter type P1. Wear appropriate mask.
Environmental exposure controls	Avoid release to the environment.

SECTION 9.- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state: Solid. **Appearance:** Crystalline solid. Crystalline powder. Little spheres. Grains.

Odor: Odourless In moist air: Ammonia odour **Color:** White

Molecular mass	60.07 g/mol
Odor threshold	No data available.
pH	7.2
pH solution	10%
Relative evaporation rate (butyl acetate=1)	No data available.
Melting/Freezing point	133 °C
Boiling point	Not applicable.
Flash point	No data available.
Self ignition temperature	No data available.
Decomposition temperature	No data available.
Flammability (solid, gas)	No data available.
Vapor pressure	< 0.01 hPa
Relative vapor density at 20°C	2.1
Relative density	1.33
Density/specific gravity	1335 kg/m³
Solubility	Soluble in water. Soluble in ethanol. Soluble in acetic acid. Soluble in pyrimidine. Soluble in hydrogen chloride. Water: 100 g/100ml Ethanol: 10 g/100ml
Log Pow	< -1.73
Log Kow	No data available.
Viscosity, kinematic	No data available.
Viscosity, dynamic	0.002 Pa.s (20 °C)
Explosive properties	No data available.
Oxidizing properties	May intensify fire; oxidizer.
Explosive limits	No data available.

9.2 Other information

No additional information available.

SECTION 10.- STABILITY AND REACTIVITY

10.1 Reactivity	Decomposes slowly on exposure to water (moisture) and in moist air: release of corrosive gases/vapors (ammonia). On heating: release of toxic/corrosive/combustible gases/vapors (ammonia). On burning: release of toxic and corrosive gases/vapors (nitrous vapors, carbon monoxide - carbon dioxide). Violent to explosive reaction with (some) halogens compounds: release of heat. Reacts with many compounds e.g.: with (strong) oxidizers: (increased) risk of fire/explosion.
10.2 Chemical stability	No additional information available
10.3 Possibility of hazardous reactions	Not established.
10.4 Conditions to avoid	Direct sunlight. Extremely high or low temperatures.
10.5 Incompatible materials	Strong acids. Strong bases.
10.6 Hazardous decomposition products	Fume. Carbon monoxide. Carbon dioxide.

SECTION 11.-TOXICOLOGICAL INFORMATION

11. 1. Information on toxicological effects

Likely routes of exposure	Skin and eyes contact; inhalation; ingestion.
Acute toxicity	Not classified.

Name	LD_{50} oral	LD_{50} dermal	LC_{50} inhalation
Urea	8,471 mg/kg (rat)	>3,200 mg/kg (rat)	-

Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes eye irritation.
Respiratory or skin sensitization	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
Specific target toxicity (single exposure)	Not classified.
Specific target toxicity (repeat exposure)	Not classified.
Aspiration hazard	Not classified.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Ecology - General	Not classified as dangerous for the environment according to the criteria of Regulation
Ecology - Air	Not classified as dangerous for the ozone layer. ot included in the list of fluorinated greenhouse gases.
Ecology - Water	Ground water pollutant. Not harmful to fishes (LC50(96h) >1000 mg/l). Not harmful to invertebrates (Daphnia) (EC50 (48h) > 1000 mg/l). Not harmful to algae.

LC_{50} fishes 1	> 6810 mg/l (96 h; Leuciscus idus; Nominal concentration)
EC_{50} Daphnia 1	> 10000 mg/l (48 h; Daphnia magna; Nominal concentration)

LC_{50} fish 2	17500 mg/l (96 h; Poecilia reticulata)
EC_{50} Daphnia 2	> 10000 mg/l (24 h; Daphnia magna)
TLM fish 1	17500 ppm (96 h; Poecilia reticulata)
Threshold limit other aquatic organisms 1	120000 mg/l (16 h; Bacteria; Toxicity test)
Threshold limit other aquatic organisms 2	> 10000 mg/l (Pseudomonas putida)
Threshold limit algae 1	> 10000 mg/l (168 h; Scenedesmus quadricauda; Growth rate)
Threshold limit algae 2	47 mg/l (192 h; Microcystis aeruginosa; Growth rate)

12.2 Persistence and degradability

Inherently biodegradable. Hydrolysis in water. Not established.

12.3 Bioaccumulative potential

No additional information available.

12.4 Mobility in soil

No additional information available.

12.5 Other adverse effects

Other information No known ecological damage caused by this product.

SECTION 13.- DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste treatment methods	Remove to an authorized dump (Class II). Do not discharge into drains or the environment. Dispose in a safe manner in accordance with local/national regulations.
Waste disposal recommendations	Avoid release to the environment.
Additional information	LWCA (the Netherlands): KGA category 03. Can be considered as non-hazardous waste according to Directive 2008/98/EC.

SECTION 14.- TRANSPORT INFORMATION

14.1.UN number Not applicable. In accordance with DOT not regulated for transport.

14.2. UN proper shipping name Not applicable.

14.3. Additional information

Other information	No supplementary information available.
Overland transport	No additional information available.
Transport by sea	No additional information available.
Air transport	No additional information available.

SECTION 15.- REGULATORY INFORMATION

15.1 US Federal regulations

Urea
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2 International regulations

CANADA

Urea
No additional information available

EU-Regulations

Urea
No additional information available.

15.2.2. National regulations

Urea
No additional information available.

15.3 US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm.

SECTION 16.- OTHER INFORMATION

NFPA	NFPA health hazard	1	NFPA fire hazard	0	NFPA instability hazard	0	NFPA Special hazard	-
HMIS III	Health	1	Flammability	0	Physical	0	Personal Protection	B

B Safety glasses and gloves.

Other information: None.

Made for: Quimica Pima, S.A. de C.V. Del Cobre No. 20 Parque Industrial. Hermosillo, Sonora, México. 83297.

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Revision note: Jul 23, 18. 4th Rev. In this latest revision is updated according to 29 CFR 1910.1200.

September 01, 2023. 5th rev. Syntax and spelling improvements and corrections were made.

IMPORTANT NOTE: Information in this SDS is from available published sources and is believed to be accurate, but is not exhaustive and will be used only as a guide, which is based on current knowledge of the chemical substance or mixture and apply to the appropriate product for safety precautions. No warranty, express or implied, is made and Pima Chemicals & Fertilizers, LLC and Quimica Pima, S.A. de C.V. assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.

End of Safety Data Sheet