



SAFETY DATA SHEET

According to 29 CFR 1910.1200

UREA AMMONIUM NITRATE (UAN 32)

Date of issue: December 28, 2011 Revision date: May 16, 2018 Version: 4

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

1.1 Product identifier

Product form	Substance or Mixture
Substance name	Urea ammonium nitrate
CAS No.	Not available
Formula	ND (Mix)
Synonyms	UAN 32

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

Use of the substance/mixture According to the technical sheet of the product.

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@quimicapima.com
www.quimicapima.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@quimicapima.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

Acute ingestion toxicity, 5

Acute dermal toxicity, 5

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) Without pictogram

Signal word (GHS-US): Attention

Hazard statement (GHS-US): H303 May be harmful if swallowed

H313 May be harmful in contact with skin

Precautionary statements (GHS-US): P101 If you need to see a doctor: have the container or product label on hand.

P264 Wash exposed skin thoroughly after handling.

P301+P312 IN CASE OF INGESTION: Call a POISON CENTER / doctor if person is unwell.

P303+P312 IF ON SKIN: Call a POISON CENTER / doctor if person is unwell.

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

None to our knowledge.



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

SECTION 3.- COMPOSICION / INFORMATION OF INGREDIENTS

3.1 Mixture Mixture
3.2 Substance Not applicable

Name	Product identifier	%	GHS-US classification
Urea	(CAS No.) 57-13-6	33-36	Not classified
Ammonium Nitrate (NH ₄ NO ₃)	(CAS No.) 6484-52-2	43-48	Skin Irrit. 3, H31 Eye irritation 2A, H319
Water	(CAS No.) 7732-18-5	19-20	Not classified

Note: There are no additional ingredients present that, to the current knowledge of the supplier and in the applicable concentrations, are classified as risk to health or the environment and therefore should be reported in this section. Occupational exposure limits, if any, are listed in section 8.

SECTION 4.- FIRST AID MEASURE

4.1. Description of first aid measure

First-aid measures general Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

First-aid measures after eye contact Immediately flush eyes with plenty of running water for less than 15 minutes. Keep your eyes open during washing. If the initial water supply is insufficient, keep the affected area wet with a damp cloth and move the person to the closest place where the rinse can be continued for the recommended time. For additional advice call a poison control center or medical advice.

First-aid measures after skin contact No specific effects were found. Rinse affected areas with water. Take off contaminated clothing, jewelry, and shoes. Wash items before reuse. Seek medical attention if pain or persistent irritation. For additional advice call a poison control center or medical advice.

First-aid measures after inhalation Take the person to fresh air. No specific effects were found. Seek medical attention if there are signs of wheezing and / or shortness of breath. For additional advice call a poison control center or medical advice.

First-aid measures after ingestion Fertilizers based on ammonium nitrate. It can be irritating to the mouth, throat and stomach. It can cause methemoglobinemia (a condition that interferes with the oxygen-carrying capacity of the blood) if it is swallowed in large amounts or over an extended period of time. Oral exposures: If the affected person requires CPR, avoid mouth-to-mouth contact. Do not induce vomiting. In the event of vomiting, they will try to keep the head lower than the chest so that the vomit does not enter the lungs. Decontaminate face and mouth with water to remove visible material. If the exposed person is conscious and can swallow, give 1-2 sips of water. Do not give anything by mouth to an unconscious person. Loosen tight clothing, such as necklaces, ties, belts, or belts to avoid breathing restrictions. Immediately transport to a hospital if the exposed person feels ill or has difficulty breathing, or if they are suspected of ingesting a large amount of the material. For additional advice call a poison control center or medical advice.

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

Symptoms/injuries after inhalation Exposure to degradation products can produce health risks. Serious effects may arise in the long term after exposure.

Symptoms/injuries after skin contact There are no known significant effects or critical risks.



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Symptoms/injuries after eye contact	There are no known significant effects or critical risks. It can be irritating to the digestive tract. It can cause nausea, vomiting, diarrhea, and abdominal pain. It can cause methemoglobinemia (a condition that interferes with the oxygen-carrying capacity of the blood) if it is swallowed in large amounts or over an extended period of time. People with methemoglobinemia their lips, nails, and skin may acquire a blue hue. They may also have shortness of breath or shortness of breath. People most susceptible to methemoglobinemia include: young children (less than 3 months), the elderly, people with chronic obstructive pulmonary disease (COPD), anemia, coronary artery disease, recent surgery or infection, and those with a deficiency G-6-PD genetics
Symptoms/injuries after ingestion	

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

In case of inhalation of decomposition products (carbon monoxide, carbon dioxide, nitrogen oxides) in a fire, symptoms may appear later. The exposed person may need to be kept under medical supervision for up to 72 hours. In cases of suspected methemoglobinemia, monitor blood levels of methemoglobin. Treatment is supportive; Blue methylene may be indicated based on the severity of the patient. Call the emergency medical number on this tab or your poison center or doctor immediately if large amounts have been ingested. In cases of suspected methemoglobinemia, methylene blue may be indicated based on the severity of the patient.

SECTION 5.- FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media	Not flammable. Any fire extinguishing media may be used on nearby fires.
Unsuitable extinguishing media	No unsuitable extinguishing media known.

5.2. Special hazard arising from the substance or mixture

Fire hazard	DIRECT FIRE HAZARD. Non combustible. INDIRECT FIRE HAZARD. Promotes combustion. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	DIRECT EXPLOSION HAZARD. No data available on direct explosion hazard. INDIRECT EXPLOSION HAZARD. The pressure can increase and the container can explode in case of heating or fire. It is not an oxidizer at the concentration that is manufactured. It may act as an oxidizing liquid if concentrated by evaporation.
Reactivity	Under fire conditions, this material can decompose the product emitting toxic fumes (CO ₂ , CO, NO). Keep unnecessary people away.

5.3. Advice for firefighters

Precautionary measures fire	Not combustible. Decomposes with heat. It releases toxic fumes when heated to decomposition. Dangerous if allowed drying. The residues can acquire oxidizing properties.
Firefighting instructions	It is not an oxidizer at the concentration that is manufactured. It may act as an oxidizing liquid if concentrated by evaporation. If evaporated to the degree of dryness, it acts as an oxidizing agent. In the event of a fire, flood the area with amounts of water even after the fire has been extinguished. Self-contained breathing apparatus should be worn to avoid inhalation of toxic fumes (CO ₂ , CO, NO). Contain the water that was used to extinguish the fire.
Protection during firefighting	Firefighters must wear suitable protective equipment and self-contained breathing apparatus (SCBA) with a full face mask operating in positive pressure mode. Firefighter clothing (including helmets, gloves, and protective boots) has a basic level of protection in the event of a chemical incident



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SECTION 6. - ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment

Emergency procedures

Observations

Wear appropriate breathing apparatus when ventilation is insufficient. Put on appropriate personal protective equipment. If special clothing is required to cope with the spill, consider the information in Section 8 on appropriate and unsuitable materials. You must not take any action that poses an excessive risk or if personnel are not adequately trained. Evacuate the surroundings. Keep unnecessary and unprotected personnel away. Do not touch or walk through spilled material. Provide adequate ventilation.

Not combustible. Decomposes with heat. It releases toxic fumes when heated to decomposition. Dangerous if allowed to dry. The residues can acquire oxidizing properties.

6.1.2. For emergency responders

Protective equipment

Emergency procedures

Do not attempt to take action without suitable protective equipment. For further information refer to section 8 Exposure controls/personal protection"

Ventilate area.

6.2. Environmental precautions

Stop leaks if possible. Contain spills by all available means. Cover the drains. Do not allow it to enter the ground / subsoil. Do not pour into the drain or into the environment.

6.3. Methods and material for containment and cleaning up.

Small spill

Put on appropriate personal protective equipment (see Section 8). Stop the spill if this does not pose an excessive risk. Remove any other containers from the spill area. Absorbent with an inert material and placed in a waste disposal container. Do not absorb it with sawdust or other combustible material. Availability through an authorized disposal contractor.

Large spill

Put on appropriate personal protective equipment (see Section 8). Approach the discharge in the direction of the wind. Stop leak if without risk. Remove any other containers from the spill area. Avoid entering sewers, waterways, basements, or confined areas. Stop and collect spills with non-combustible absorbent materials, such as sand, earth, vermiculite, or diatomaceous earth, and place the material in a container for disposal in accordance with local regulations (see Section 13). Do not absorb it with sawdust or other combustible material. Availability through an authorized contractor for your disposal. Note: See Section 1 for emergency contact information and Section 13 for waste disposal.

Other information

Dispose of materials, liquid or solid residues at an authorized site.

6.4 Reference to other sections

For further information refer to section 8: Exposure-controls/personal protection.

SECTION 7.- HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8). Do not eat. Do not allow it to get into eyes or contact with skin or clothing. Do not breathe vapors or mists. Do not eat. If during normal use the material poses a respiratory hazard, ensure adequate ventilation or use an appropriate respirator. Keep in the original container or in an authorized alternative one made of compatible material, keep tightly closed when not in use. Keep away from clothing, incompatible materials and combustible materials. Keep away from alkalis. Keep away from heat. Empty containers retain product residue and can be dangerous.



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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 incompatible materials. Keep container closed when not in use.
Incompatible products	It can be corrosive to metals. Contact your sales representative or a metallurgical specialist to ensure compatibility with your equipment. Conservative in accordance with local regulations. Store in the original container protected from direct sunlight in a dry, cool and well-ventilated area, separate from incompatible materials (see Section 10) and food and drink. Keep the container tightly closed and sealed until the moment of use. Open containers should be carefully closed perfectly and kept upright to avoid spills. No containers in unlabeled containers. Use a suitable safety container to avoid contamination of the environment.
Heat-ignition	Keep substance away from: heat sources.
Storage area	Store in a dry area. Store at room temperature. Keep container in a well-ventilated place. Meet the legal requirements.

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
Ammonium Nitrate 6484-52-2	Not available	Not available	Not available

8.2. Exposure controls

Appropriate engineering controls	There are no special ventilation requirements. Regular ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains limited exposure ingredients, use process fencing, local ventilation, or other engineering controls to keep worker exposure below all recommended or statutory limits.
Personal protective equipment	Vapor production: vapor mask with 3M 6003 organic vapor/acid gas cartridge if cause of having or suspicion heat sources at near product. Gloves. Safety glasses.
Material for protective clothing	GIVE GOOD RESISTANCE: nitrile, neoprene or PVC. GIVE POOR RESISTANCE: natural fibers.
Hand protection	Gloves. Recommended: nitrile, neoprene or PVC.
Eye protection	Safety glasses. In case of vapor production: protective goggles.
Skin and body protection	Protective clothing if cause of emergency. Recommended: Tychem SL, Tychem F, Tychem ThermoPro, Tychem TK or equivalent.
Respiratory protection	Use a properly fitted, air-supplied or air-purifying respirator complying with an approved standard if a risk assessment indicates that it is necessary or mask with 3M 6003 organic vapor/acid gas cartridge if case of having heat sources
Hygiene measures	Wash hands, forearms, and face thoroughly after handling chemicals, before eating, smoking, and using the sink, and at the end of the work period. Use the appropriate techniques to remove contaminated clothing. Wash contaminated clothing before reuse. Verify that eyewash stations and safety showers are near workstations.

SECTION 9.- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Liquid.	Appearance:	Liquid.
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Odor:	Odorless/ammonia (slightly)	Color:	Colorless
Molecular mass			No data available.
Odor threshold			No data available.
pH			6
pH solution			No data available.
Relative evaporation rate (butyl acetate=1)			No data available.
Melting point at 760 mm Hg			0°C (32°F)
Freezing point			No data available.
Boiling point			121°C (249.8°F)
Flash point			Non-flammable >93°C (>199.4 °F)
Self ignition temperature			Not applicable.
Decomposition temperature			No data available.
Flammability (solid, gas)			Non-flammable
Vapor pressure at 20°C			2350 Pa
Relative vapor density			No data available.
Relative density at 20°C			1.425 g/cm ³
Density/specific gravity			No data available.
Solubility			Soluble in water
Log Pow			No data available.
Log Kow			No data available.
Viscosity			3.23 cP
Flammable properties			Non-flammable.
Explosive properties			Non-explosive
Oxidizing properties			Not applicable.
Explosive limits			No data available.

9.2 Other information No additional information available.

SECTION 10.- STABILITY AND REACTIVITY

10.1 Reactivity	No test data is available on the reactivity of this product or its components.
10.2 Chemical stability	The chemical is stable under normal conditions.
10.3 Possibility of hazardous reactions	Under the indicated conditions, no dangerous reactions are expected that could cause excessive pressure or temperatures.
10.4 Conditions to avoid	Do not allow it to dry out. Avoid high temperatures in combination with high pressures.
10.5 Incompatible materials	Reactive or incompatible with the following materials: strong acids, strong bases, chlorinated bleaches. Incompatible with copper, copper and zinc alloys. It may be incompatible with some metals used in storage and handled equipment.
10.6 Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced but At very high temperatures it is possible release complex mixtures of



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chemicals: carbon dioxide (CO₂), carbon monoxide (CO) and other organic compounds.

SECTION 11.-TOXICOLOGICAL INFORMATION

11. 1. Information on toxicological effects

Name	LD ₅₀ oral	LD ₅₀ dermal	LC ₅₀ inhalation
Urea	14,300-15,000 mg/kg (rat)	> 5,000 mg/kg (rabbit)	-
Ammonium Nitrate	2,217 mg/kg (rat)	> 3,000 mg/kg (rabbit)	> 88.8 mg (rat)

Skin corrosion/irritation	No specific effects or critical hazards are known.
Serious eye damage/irritation	No specific effects or critical hazards are known.
Respiratory or skin sensitization	Exposure to degradation products can produce health risks. Serious effects may arise in the long term after exposure.
Ingestión	It can be irritating to the digestive tract. It can cause nausea, vomiting, diarrhea, and abdominal pain. It can cause methemoglobinemia (a condition that interferes with the oxygen-carrying capacity of the blood) if it is swallowed in large amounts or over an extended period of time. People with methemoglobinemia their lips, nails, and skin may acquire a blue hue. They may also have shortness of breath or shortness of breath. People most susceptible to methemoglobinemia include: young children (less than 3 months), the elderly, people with chronic obstructive pulmonary disease (COPD), anemia, coronary artery disease, recent surgery or infection, and those with a deficiency G-6-PD genetics
Carcinogenicity	Possibility of nitrosamine formation if swallowed. Do not eat.
Mutagenic effects	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

Practically non-toxic to aquatic organisms. Very low acute toxicity to fish.

12.2 Persistence and degradability

Readily biodegradable

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data 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



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Waste treatment methods	Dispose of in accordance with relevant local regulations.
Waste disposal recommendations	The generation of waste should be avoided or minimized wherever possible. The disposal of this product, its solutions and any derivatives must always comply with the requirements of environmental protection and waste disposal legislation and all the requirements of local authorities. Dispose of leftover and non-recyclable products through an authorized disposal contractor. Waste should not be disposed of down the sewer without treatment unless they are compatible with the requirements of all authorities with jurisdiction. Discarded containers must be recycled. Empty containers or liners may retain product residue. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14.- TRANSPORT INFORMATION

14.1. UN number	Not regulated
14.2. UN proper shipping name	Not regulated
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

This product does not contain chemicals that are subject to the information requirements of Act and Title 40 of the Code of Federal Regulations, Part 372.

15.2 International regulations

CANADA

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Information not available.
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EU-Regulations

No additional information available.

15.2.2. National regulations

Information not available.

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

G Safety glasses, Gloves.



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:

Oct 18, 2016 4th rev. In this latest revision is updated according to 29 CFR 1910.1200.
Mayy 16, 2018 4.1 rev. Section 2 and section 16 were modified.

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