SAFETY DATA SHEET

According to 29 CFR 1910.1200

NITRASOL CALCIUM

Date of issue: December 28, 2011 **Revision date:** April 06, 2016 **Version.** 2

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

1.1 Product identifier

Product form	Mixture
Substance name	Nitrasol Calcium
CAS No.	Not available
Formula	$Ca(NO_3)_2 + NH_4NO_3$
Synonyms	Solid calcium nitrate, calcium nitrate fertigation, double salt of calcium nitrate and ammonium nitrate. NitraSol Calcium Granules.

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@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

Oxidizing solids 3 H272

Skin corrosion/irritation 3 H316

Eye damage/irritation 2B H320

Specific target organ toxicity (single exposure) 3 H335

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)

Signal word (GHS-US):	Warning
Hazard statement (GHS-US):	H272 May intensify fire; oxidizer.
	H316 Causes mild skin irritation.
	H320 Causes eye irritation.
	H335 May cause respiratory irritation.

Precautionary statements (GHS-US):

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220 Keep/Store away from clothing/combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash exposed skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P352 IF ON SKIN (or hair): Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER/doctor/physician if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire: Use any appropriate means to extinguish.

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.

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*
Calcium Nitrate	(CAS No.) 10124-37-5	< 77.8	Ox. Sol. 3; H272 Skin Irrit. 3, H316 Eye Irrit. 2B, H320 STOT-SE 3; H335
Ammonium Nitrate	(CAS No.) 6484-52-2	> 6.5	Skin Irrit. 3, H31 Eye irritation 2A, H319

SECTION 4.- FIRST AID MEASURE

4.1. Description of first air 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 Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.

First-aid measures after skin contact Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.

First-aid measures after inhalation Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Get medical attention.

First-aid measures after ingestion	If Potassium Nitrate is swallowed, if conscious, give plenty of water. Immediately call a physician. Never give anything by mouth to an unconscious person.

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

Symptoms/injuries after inhalation	Irritation of the respiratory tract. Pain / dry throat. Cough.
Symptoms/injuries after skin contact	Irritation of the skin. Redness. Pain.
Symptoms/injuries after eye contact	Redness of the eye tissue. Irritation of the eye tissue. Pain. Tearing,
Symptoms/injuries after ingestion	Abdominal pain, diarrhea, nausea, vomiting. After absorption of large quantities: blood in the stool. Methemoglobinemia. They may appear last time: change blue / gray skin color. Dizziness. Feeling weak. Heart rhythm disturbances. Headache. Disorders of consciousness.
Chronic symptoms	ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation. Respiratory difficulties.

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

Treat symptomatically.

SECTION 5.- FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media	Adapt extinguishing media to the environment.
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. No data available on indirect explosion hazard.
Reactivity	Decomposes on exposure to temperature rise: release of oxygen and nitrogen oxides. On burning: release of toxic and corrosive gases/vapours (nitrous vapours). Violent to explosive reaction with many compounds e.g.: with organic material, with combustible materials, with (some) metals and their compounds and with (strong) reducers. Reacts with (some) acids: release of toxic and corrosive gases/vapours (nitrous vapours).

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. Do not move the load if exposed to heat. Dilute toxic gases with water spray.
Protection during firefighting	Heat/fire exposure: compressed air/oxygen apparatus.

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. Reactivity hazard: compressed air/oxygen apparatus. Reactivity hazard: gas-tight suit.
Emergency procedures	Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.
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	Do not attempt to take action without suitable protective equipment. For further information refer to section 8 Exposure controls/personal protection"
Emergency procedures	Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Do not allow product to spread into the environment. Do not discharge into drains or rivers

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. If reacting: dilute toxic gas/vapor with water spray. Take account of toxic/corrosive precipitation water.
Methods for cleaning up	Prevent dispersion by covering with dry sand/earth. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
Other information	Dispose of materials 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	Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Avoid raising dust. 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.
Hygiene measures	Do not drink, eat or smoke in the workplace. Always wash hands after handling the product. Do not eat, drink or smoke when using this product.

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	KEEP SUBSTANCE AWAY FROM: combustible materials. Reducing agents. (Strong) acids. metals. Organic materials.
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.

Special rules on packaging	SPECIAL REQUIREMENTS: closing. Dry. Correctly labelled. Meet the legal requirements. Secure fragile packaging in solid containers.
Packaging materials	SUITABLE MATERIAL: Synthetic material. Glass. MATERIAL TO AVOID: Aluminum.

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*
Calcium Nitrate 10124-37-5	Not available	Not available	Not available
Ammonium Nitrate 6484-52-2	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	Dust production: dust mask with filter type P2. Gloves. Safety glasses.
Material for protective clothing	GIVE GOOD RESISTANCE: butyl rubber. Neoprene. Rubber. GIVE POOR RESISTANCE: natural fibers.
Hand protection	Gloves.
Eye protection	Safety glasses. In case of dust production: protective goggles.
Skin and body protection	Protective clothing.
Respiratory protection	Dust production: dust mask with filter type P2.
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.
Odor:	Odorless.	**Color:**	White to slightly brown.

Molecular mass	164.10 g/mol
Odor threshold	No data available.
pH	5 – 7
pH solution	10%
Relative evaporation rate (butyl acetate=1)	No data available.
Melting point	116.67°C
Freezing point	No data available.
Boiling point	Not applicable.
Flash point	Not applicable.
Self ignition temperature	Not applicable.
Decomposition temperature	95°C

Flammability (solid, gas)	No data available.
Vapor pressure	No data available.
Relative vapor density at 20°C	6.0
Relative density	1050 kgm ± 5%
Density/specific gravity	No data available.
Solubility	Soluble in water. Water: 250 g/100 ml @ 20°C
Log Pow	Not applicable (inorganic substance).
Log Kow	No data available.
Viscosity, kinematic	No data available.
Viscosity, dynamic	No data available.
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 on exposure to temperature rise: release of oxygen. On burning: release of toxic and corrosive gases/vapours (nitrous vapours). Violent to explosive reaction with many compounds e.g.: with organic material, with combustible materials, with (some) metals and their compounds and with (strong) reducers. Reacts with (some) acids: release of toxic and corrosive gases/vapours (nitrous vapours).
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	None under normal conditions of use.
10.4 Conditions to avoid	Direct sunlight. Heat. Incompatible materials. Open flame. Sparks.
10.5 Incompatible materials	Combustible materials, powdered metals, ammonia, hydrazine, reducing agents, phosphorus, sulfur, concentrated acids, copper salts, chlorides, hypochlorites perchlorates, chromates, nitrites, permanganates, strong alkalis, organic materials or coal (hot).
10.6 Hazardous decomposition products	At very high temperatures it is possible the formation of poisonous gases including nitrogen oxides.

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
Calcium Nitrate	302 mg/kg (rat)	-	-
Ammonium Nitrate	2217 mg/kg (rat)	-	-

Skin corrosion/irritation	Causes mild skin irritation.
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)	May cause respiratory irritation.
Specific target toxicity (repeat exposure)	Not classified.
Aspiration hazard	Not classified.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Ecology - General	Classification concerning the environment: not applicable.
Ecology - Air	Not classified as dangerous for the ozone layer.
Ecology - Water	No data available.

12.2 Persistence and degradability

It is readily biodegradable in plants and soils. As long as the product is used properly, according to instructions, no damage to the environment is generated.

12.3 Bioaccumulative potential

The product generates no bioaccumulation.

12.4 Mobility in soil

This product can move with currents of surface water or groundwater because of its solubility in water.

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	Dispose of in accordance with relevant local regulations.
Waste disposal recommendations	Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Precipitate/make insoluble. Remove to an authorized dump (Class I). Do not discharge into surface water.

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

Calcium Nitrate (10124-37-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 313 - Emission Reporting	None of the ingredients is listed.

15.2 International regulations

CANADA

Calcium Nitrate (10124-37-5)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class D-1B: Material causing immediate and serious toxic effects (Toxic).

EU-Regulations

Calcium Nitrate (10124-37-5)
No additional information available.

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

Ox. Sol. 3 H272

15.2.2. National regulations

Calcium Nitrate (10124-37-5)
Not listed on the Canadian Ingredient Disclosure List.

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	E

E Safety glasses, gloves and dust respirator.



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: In this latest revision is updated according to 29 CFR 1910.1200.

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