



MATERIAL SAFETY DATA SHEET <i>according to the 1907/2006/CE Regulation</i>		Review: 20/05/2009	Rev.#: 0
PRODUCT:	NATROS	Replaces: --	Page 1/5

1.- IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Company:	LAINCO, s.a.	Address:	Av. Compositor Bizet, 8-12; Pol. Ind. Can Jardí; 08191 RUBI (Barcelona) SPAIN		
Telephone:	(+34) 93 586 20 15	Fax:	(+34) 93 586 20 16	E-mail:	lainco@lainco.es
Commercial name:	NATROS		Registration number:	Does not proceed	
Use of the product:	Salinity and calcium deficiencies corrector.				
Real effect:	--				
Emergency telephone: NATIONAL INSTITUTE OF TOXICOLOGY (Schedule: 24 h.)				(+34) 91 562 04 20 (SPAIN)	

2.- HAZARDS IDENTIFICATION

SYMBOLS OF DANGER	
	Irritant
Risk Phrases	R36: Irritating to eyes.
Other Dangers	-

3.- COMPOSITION / INFORMATION ON INGREDIENTS

General composition:	5,0% w/w Nitrogen + 10,0% w/w Calcium Oxide + 10,0% w/w Polyhydroxycarboxylic Acids + 75,0% w/w Solvents and coadjuvants					
Hazardous components	Content (% w/w)	EC #	CAS #	Classification		OBSERVATIONS
				Symbols	Risk Phrases	
Gluconic Acid <i>In water solution 50/50</i>	20,0%	208-401-4	526-95-4	Xi	R36	--

4.- FIRST AID MEASURES

	Symptoms and effects	Actions to carry out
Contact / Skin	May cause skin irritation.	Remove clothing contaminated with the product immediately. Wash it before using again. Wash the affected body zones with abundant water and soap, avoiding rubbing these zones.
Contact / Eyes	Irritating to eyes. Eye redness, pain, watering, conjunctivitis.	Wash the eyes with abundant water at least during 15 minutes. In order to be sure that the washing is complete, the eyelids must remain separated from the eyeball. Do not forget to retire the contact lenses in case the victim had them.
Ingestion	May cause gastrointestinal tract irritation.	If the victim is conscious, give to drink plenty of water. If the person is unconscious, lay him side down with the head lower than the rest of the body and the knees bended. Seek for medical advice in order to perform a gastric washing when necessary. Symptomatic treatment.
Inhalation	May cause respiratory system irritation.	Remove the person from the contaminated zone. Put him in rest position, nearly straight, with untied clothing. If necessary, apply artificial respiration.

General advices:

- ✓ DO NOT LEAVE THE INTOXICATED PERSON ALONE AT ANY TIME.
- ✓ In case of symptoms due to inhalation, swallowing or contact of the product, seek medical advice and show the product's label or this material safety data sheet.

5.- FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Pulverized water, dry chemical powder, foam, carbon dioxide or water.
NON suitable extinguishing media:	No restriction.



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Combustion products:	H ₂ O, CO, CO ₂ , NO _x .
Special measures to consider:	Cool the drums/containers by water spraying and in case there is an explosion keep a security distance. Maintain the zone free of people, keeping them at a minimum distance of security (50 metres). Avoid using great volumes of water, in order to minimize the extension of the product. Work always in favour of the wind or in right angle respect to it.
Specific hazards during fire fighting:	None.
Protective equipment:	Wear the basic protective equipment for fire extinction. Suitable breathing device and protective clothing (suit, gloves of PVC and rubber boots).

6.- ACCIDENTAL RELEASE MEASURES

Personal precautions	Environmental Precautions	Attention
Avoid long contact with the product and contaminated clothes. Keep a minimum safety distance of 50 meters.	Avoid the entry of the product into the water course or the sewers network as well as in zones with vegetation. Warn the competent authorities in case the spill enters into the sewage system or the water course.	DNP
Personal protection	Detoxification and cleaning up	Neutralization
Wear protective clothes (suit, gloves and plastic boots). Carry an appropriate breathing device.	Avoid the dispersion of the product with mechanical barriers and absorb or retain the liquid with sand, clay or any other appropriate absorbent material. All the residues will be placed to a safe place to proceed with their elimination.	DNP

7.- HANDLING AND STORAGE

Handling	
General precautions: <ul style="list-style-type: none">- Handle the product container with care, avoiding, during its transport, crushes with heavier products and not letting it fall down.- Before applying the product be sure that the equipment you will use is the proper one and it is in perfect state.- Follow the instructions for the product preparation indicated on the label of the container.- Mark the treated zones, forbidding people not wearing an appropriate protective equipment to enter.	
Storage	
Temperature:	Store at room temperature.
Decomposition products:	None.
Dangerous reactions:	Do not aggressively mix with strong alkaline products (exothermic reaction).
Storage conditions:	Store it in the original recipient, perfectly closed, in a cold, dry and ventilated place. Avoid low temperatures.
Incompatible materials:	Keep it away from combustible, reducing or organic substances and concentrated alkalis.
Specific uses	
Authorized uses indicated in the label of the product. Reserved use to agriculturists and professional applicators.	

8.- EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit values					
VLA-ED:	--	VLA-EC:	--	VLB:	--
Occupational exposure controls					
OCCUPATIONAL EXPOSURE CONTROLS					
Respiratory protection:	Suitable respiratory device. In case of fire autonomous breathing equipment must be used.				
Hand protection:	PVC gloves.				
Eye protection:	Protective glasses or facial mask of total protection.				
Skin protection:	Suit. Rubber boots (with the trousers on the boots).				

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Other protections:

Have in hand the appropriate devices to wash eyes or skin in case of an accident.
Work in places with appropriate ventilation and far from possible ignition sources. Work always in favour of the wind.
Avoid the skin contact with the product and inhalation of the aerosols / vapours.
Do not eat, drink, or smoke during the handling of the product.
Take off the stained or soaked clothing with product immediately and wash with water and soap before using it again.
Do not put dirty rags, stained with the product in the pockets. Avoid the contact with the product.

ENVIRONMENTAL EXPOSURE CONTROLS

Observe the normal precautions when working with this kind of products.

9.- PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark brownish liquid	Boiling point/range:	--
Odour:	Characteristic	Vapour pressure:	--
pH (1% water solution):	2,5 - 3,5	Melting point:	DNP
Density:	1,30 - 1,40 g/ml	Flash point:	DNP
Water solubility:	Soluble	Flammability (solid-gas):	Not flammable
Explosive properties:	Not explosive	Auto-flammability:	DNP
Solvent-oil solubility:	--	Oxidising properties:	Not oxidising
Partition coef. (n-octanol/water):	--	Viscosity:	--
Other information:	--		

10.- STABILITY AND REACTIVITY

Stability:	The product stored in its original packing and in normal conditions keeps its initial properties during a minimum period of 2 years. Stable to light and heat.
Conditions to avoid:	Humidity and very low temperatures.
Materials to avoid:	Combustible substances and concentrated alkalis.
Hazardous decomposition products:	None.

11.- TOXICOLOGICAL INFORMATION

Routes of exposure:	By ingestion, eyes and skin contact and inhalation.					
Acute and chronic effects:	DL ₅₀ (oral-rat):	> 2000 mg/Kg	DL ₅₀ (dermal-rabbit):	> 2000 mg/Kg	CL ₅₀ (inhalation-rat):	> 5 mg/L (4h)
Irritation:	Skin: Not Irritating.		Eyes: Irritant.		Respiratory System: Not Irritating.	
Sensitisation:	Not sensitizing.					
Carcinogenicity:	No data available.					
Mutagenicity:	No data available.					
Reproductive toxicity:	No data available.					
Narcosis:	No data available.					
Other information:	--					

12.- ECOLOGICAL INFORMATION

Ecotoxicity
Non toxic for fish, bees and aquatic organisms.
Mobility / Bioaccumulation
No data available.



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Persistence / Degradability			
No data available.			
Other information:	Theoretical COD:	No data available.	Theoretical TOC: No data available.

13.- DISPOSAL CONSIDERATIONS

Disposal of the product:	No residues will remain due to the use of the product if the empty packaging is washed 3 times with water, adding this water to the solution.
Disposal of used containers:	The package, washed as above mentioned, may be disposed according to the local legislation, in a no contaminant place.
Provisions on waste disposal:	According to all the local and national legislation about the elimination of residues.

14.- TRANSPORT INFORMATION

Labelling for transport:	--							
ADR:	Proper Shipping Name:		NC					
	UN #:	NC	Classification Code:	--				
	Class:	--	Packing group:	--	Hazard No.:	--	Secondary Risk:	--
RID:	Proper Shipping Name:		NC					
IMDG:	Proper Shipping Name:		NC					
	Nº FEm:	--	Secondary Risk:	--				
IATA:	Proper Shipping Name:		NC					
Special precautions:	Do not load foods along with. Avoid high temperatures. Verify that the packing is in good state and that the labels are not damaged before the distribution.							

15.- REGULATORY INFORMATION

Hazardous product symbol:	Xi
Toxicity	Toxicology classification (RD 255/2003): Irritant.
R-phrases:	
R36: Irritating to eyes.	
S-phrases:	
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.	
Other information:	
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16.- OTHER INFORMATION

Consulted data bases:
<ul style="list-style-type: none">✓ Agro-Research. Agrochemical Directory and Hazard Response Handbook. Agro-Research enterprise Ltd.✓ RTECS (Registry of Toxic Effects of Chemical Substances). U.S. Department of Health and Human Services (1981-82).✓ ESIS. European chemical Substances Information System.✓ The Pesticide Manual, Thirteenth Edition (2003). Editor: C D S Tomlin.✓ Farmacología vegetal, Carlos De Liñan y Vicente. 3ª Edición. Ediciones Agrotécnicas, S.L.✓ Manual Toxicológico de Productos Fitosanitarios para Uso Sanitario.
Other R and S-phrases:
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Glossary:**CAS:** Chemical Abstract Service.**EINECS:** European Inventory of Existing Chemical Substances.**VLA-ED:** Occupational Limit Value - Daily Exposure. Maximum concentration to which it is believed, that the majority of workers may be exposed 8 hours a day, 40 hours a week throughout their working life, without suffering adverse effects on their health.**VLA-EC:** Occupational Limit Value - Short Time Exposure. Maximum concentration of the chemical agent in the worker's breathing zone, measured or calculated for any 15-minute period throughout the working day, except for those chemical agents for which a lower reference period is specified in the list of Limit Values.**VLB:** Biological limit value for professional exposure.**DNP:** Does not Proceed.**NC:** Not classified.**DL₅₀:** Average Lethal Dose.**CL₅₀:** Average Lethal Concentration.**ADI:** Acceptable Daily Intakes.**COD:** Chemical oxygen demand.**TOC:** Total organic carbon.**ADR:** European Agreement concerning the International Carriage of Dangerous Goods by Road.**RID:** European Agreement concerning the transport of dangerous goods by rail.**IMDG:** International Maritime Dangerous Goods Code.**Nº FEm:** Emergency Card Number.**IATA:** International Air Transport Association.**RD 255/2003:** Real Decree 255/2003, of 28th of February of 2003, by that the Regulation is approved on classification, packaging and labelling of dangerous preparations. BOE no. 54, of 4th of March.**Changes:**

New creation MSDS.

The data and information of the present document are based on our current knowledge and other existing sources, according to the current regulations about classification, packing and labelling of dangerous products. Due to the fact that during manipulation a lot of factors are out of our control, **LAINCO, S.A.** is not responsible that the information is enough or correct in its application in all cases.