



MATERIAL SAFETY DATA SHEET

Date: 09/03/2006

Revision: 2

PRODUCT: **LAITECA**

Substitutes: 19/04/2004

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1.- IDENTIFICATION OF THE PRODUCT AND COMPANY

Company:	LAINCO, S.A.	Address:	Avda. Bizet, 8-12 Pol. Ind. Can Jardí 08191 RUBI (BARCELONA)		
Telephone number:	00 34 93 586 20 15	Fax:	00 34 93 586 20 16	Emergency telephone number:	00 34 93 586 20 15
Commercial name:	LAITECA				
Use:	Plant growth regulator				
Real effect:	Homogenise the flowering, induces the mincemeat and favours the size of the fruit				

2.- COMPOSITION AND INFORMATION ON COMPONENTS

General composition:	0,50% (w/v) 2,4-D + 0,70% (w/v) Gibberellic acid + 0,50% (w/v) ANA + 4,50% (w/v) Coadjuvants + 73,78% (w/v) Isopropanol + 0,12% (w/v) Technical product impurities
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Hazardous components	Range (% w/w)	Symbol	Nº EINECS	Nº CAS	Classification	
					R	S
2,4-D	0,62%	Xn	202-361-1	94-11-1	R20/21/22	S2, S13
Gibberellic acid	0,87%	Xn	201-001-0	77-06-5	R22	S22, S36, S45
ANA	0,62%	Xn	201-705-8	86-87-3	R22	S24/25
Isopropanol	92,11%	F	200-661-7	67-63-0	R11	S7, S16

3.- IDENTIFICATION OF HAZARDS

The liquid or the vapour may cause eyes irritation. Inflammable liquid. The inhalation of the vapours may cause somnolence and vertigo. May volatilize, producing non visible vapour, heavier than the air and it propagates at ground level. Can make up explosive mixtures with the air, specially in empty recipients containing residues. Heat cause a pressure increase, with risk of breaking the recipient, inflammation and explosion. Harmful to environment.

4.- FIRST AID

	Symptoms and effects	Action
Contact / skin	Skin irritation	Remove clothing contaminated with the product immediately. Wash it before using again. Wash the affected body zones with abundant water and soap.
Contact / eyes	Ocular irritation, 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.
Ingestion	Nausea, vomiting, vertigo, headache, depression of the CNS (Central Nervous System)	In case of symptoms of swallowing, do not provoke vomit. Do not administer anything by oral route. In case he is in a state of unconsciousness, lay him face downwards resting the head on one side to avoid the aspiration of vomit in case this takes place spontaneously. Look for medical assistance to carry on gastric followed by the administration of activated carbon.
Inhalation	Irritation of respiratory system, headache and nausea	Remove to the fresh air, in rest position, nearly straight, with untied clothing. If necessary, apply artificial breathing.

General measures:

- Do not leave the intoxicated person alone at any time.
- In case of symptoms due to inhalation, ingestion or contact with the product, seek medical advice, showing the recipient label or this safety data sheet.
- There is no specific antidote, the treatment will be symptomatic.
- DIAGNOSIS: Determination of the isopropyl alcohol level in expired air or determination of the isopropyl alcohol and acetone in urine.

5.- FIRE-FIGHTING MEASURES

Extinguishing methods:	Chemical powder, foam and pulverized water
Unsuitable extinguishing methods:	Do not use water pressure jet.
Combustion products:	H ₂ O, CO ₂ , CO.



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Special measures to be taken:	Cool the drums/containers by water spray and in case there is an explosion maintain a security distance. Keep the zone free of people, maintaining them at a minimum distance of security. Avoid to use 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. Never work against the wind direction.
Special hazards:	Very inflammable liquid. Emission of toxic and irritant gases by thermal decomposition (HCl, Cl ₂ , CO ₂).
Especial protective equipment:	Wear suitable protective equipment for fire extinction. Autonomous breathing equipment and protective clothing (suit, gloves of PVC and rubber boots).

6.- STEPS TO BE TAKEN IN THE EVENT OF ACCIDENTAL SPILLAGE

Personal precautions: Avoid long contact with the product and with contaminated clothing. Minimum distance security of 50 meters.	Precautions for the environment: Avoid its entry in a course of water or in the sewers, and in zones with vegetation.	Attention: Keep away any possible source of ignition or heating
Personal protection: Appropriate breathing device, glasses, gloves and plastic or synthetic rubber shoes.	Detoxification and cleaning: Avoid the dispersion of the product with mechanical barriers and absorb or retain the liquid with sand, clay or any other absorbent material.	Neutralise: 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 do not let 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, prohibiting the entry of people who do not wear appropriate protective equipment.	
Specific conditions:	
<ul style="list-style-type: none">- Do not apply after petals falling nor when trees are wet by dew.- Apply this product on healthy and strong trees.- To avoid the effects of the frost, an application must be done in the following 48 hours.- Extinguish all possible flames and avoid any ignition source. Connect to mass all the electrical devices to avoid accumulation of static electricity.	
Storage	
Temperature:	Store at room temperature, avoiding temperatures higher than 40°C
Decomposition products:	The product does not decompose under normal conditions of storage
Dangerous reactions:	The product vapours can make up explosive mixtures in contact with the air.
Storage conditions:	Store it in the original recipient, perfectly closed, in a cold, dry and ventilated place, away from heat and direct light.
Incompatible materials:	Incompatible with iron materials
Uses	Reserved use to farmers and professional administrator. Authorised uses indicated on the label of the product

8.- EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment	
Breathing protection:	Mask with chemical absorbent.
Skin protection::	PVC protective suit and gloves. Rubber boots (with the trousers on the boots).
Eye protection:	Protective glasses or facial mask of total protection.
Other protection:	Have in hand the appropriate devices to wash eyes or skin in case of an accident.
General protection:	Avoid long contact and inhalation of powder of the product. Work in places with appropriate ventilation. Do not eat, drink, or smoke during the manipulation of the product. Work always in favour of the wind.

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Hygiene procedures at work:	Take off the stained or soaked clothing with product immediately and wash with water and soap before use it again. Do not put dirty rags, stained with the product in the pockets. Avoid the contact with the product. Observe the normal precautions when working with irritating products.			
Exposure controls:	TLV:	---	TLV/TWA:	---

9.- PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colourless-greenish transparent liquid				
Solvent-oil liposolubility:	---	Vapour pressure:	Volatile		
Odour:	To isopropyl	Partition coeff. (n-octanol/water):	---	Flash point:	12°C (closed)
pH:	3,1-4,1	Boiling point:	82°C	Melting point:	DNP
Density:	(20°C) 0,800-0,820 g/ml	Flammability (solid – gas):	Easily Inflammable	Self-ignition point:	>200°C
Water solubility:	Total	Comburent properties:	---	Risk of explosion:	Not explosive

10.- STABILITY AND REACTIVITY

Stability:	The product stored in its original packing and in normal conditions keeps its initial properties during two years .		
Conditions to avoid:	Contact with the air because produce the evaporation of the dissolvent, contact with humidity because the product is hidrolized. Direct light.		
Incompatibilities:	Do not mixture with other products		
Dangerous decomposition products:	2,4-dichlorophenol, CO ₂ and CO		
Risk of polymerisation:	DNP	Conditions to avoid:	DNP

11.- TOXICOLOGICAL INFORMATION

Entry:	Ingestion and inhalation					
Acute and chronic effects	DL₅₀ (oral-rat):	4630 mg/Kg	DL₅₀(skin-rat):	>10000 mg/Kg	CL₅₀ (inhalation):	---
Carcinogeneity:	No dates					
Mutagenicity:	No dates					
Toxicity for reproduction:	No dates					
Narcosis:	Great quantity may perform as narcotic					
Other data:	---					

12.- ECOLOGICAL INFORMATION

Form of contamination and contaminating power				
Persistence and degradability:	---			
Mobility/bioaccumulation:	---			
Effect on the environment / ecotoxicity				
Very low toxicity on land and water fauna. Laiteca does not have any toxicological risk, it is not toxic when handling, nor does it leave any residue on the vegetation or the environment				
Other data	Theoretical COD:		Theoretical TOC:	

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 spray.
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



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14.- TRANSPORT INFORMATION

General details:									
Labelling for transport:	Label type 3 + Marine Polutant								
Identification of the substance:	ISOPROPANOL (ISOPROPYL ALCOHOL) in mixture								
Class:	3	UN number:	1219	Hazards number:	33	Packing group:	II	Secondary risk:	Marine Polutant
Special details according to means of transport:									
TPC/ADR:	Classification code:	F1							
RID:	ISOPROPANOL (ISOPROPYL ALCOHOL) in mixture								
IMDG:	Fem number:	3-06	Secondary risk:	Marine Polutant					
IATA:	ISOPROPANOL in mixture								
Special precautions:	Avoid high temperatures. Verify recipients are in a good state and the labels are not damaged before his distribution								
Other information:	---								

15.- .- REGLAMENTARY INFORMATION

Hazardous product symbol:	Xi, F
Toxicity:	Toxicology classification (RD 255/2003): Irritant. Easily inflammable. Dangerous for environment.
Environmental risks reduction:	Mammals: A Birds: A Fish: A Bees: Controllable hazard to bees
R phrases:	R11, R36, R67, R52/53
S phrases:	S2, S9, S13, S16, S25, S36/37, S43, S45

16.- OTHER INFORMATIONS

Certifications:	---
Consulting data bases:	
<ul style="list-style-type: none">Agro-Research. Agrichemical Directory and Hazard Response Handbook. Agro-Research enterprises LTd.RTECS. Registry of Toxic Effects of Chemical Substances) U.S. Department of Health and Human Services (1981 – 82)The Pesticide Manual, Eleventh Edition. Editor: C D S TomlinFarmacología vegetal, Carlos De Liñan y Vicente. ediciones Agrotecnicas, S.L..	

R and S phrases:

R11: Highly flammable.
R36: Irritating to eyes.
R67: Vapours may cause drowsiness and dizziness.
R52/53: Harmfull to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S2: Keep out of the reach of children.
S9: Keep container in a well-ventilated place.
S13: Keep away from food, drink and animal feedingstuffs.
S16: Keep away from sources of ignition -- No smoking.
S25: Avoid contact with eyes.
S36/37: Wear suitable protective clothing and gloves.
S43: In case of fire, use chemical powder, foam and pulverized water.
S45: In case of accident or if you feel unwell, seek medical advice immediately (*show the label where possible*).

Glossary:

ADI: Acceptable daily intake	CAS: Chemical Abstract Service	
COD: Chemical oxygen demand	DNP: Does not proceed	
LC ₅₀ : Average lethal concentration	LD ₅₀ : Average lethal dose	
MRL: Maximum residue limit	NA: Not applicable	NC: Not classified



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STEL: Short-term exposure limit. Maximum concentration to which one can be exposed for 15 consecutive minutes

TLV: Threshold limit value. Concentration to which one can be exposed without adverse effects

TWA: Time weighted average. Maximum concentration of the substance in the air to which one can be exposed for 8 hours per day or 40 hours per week.

The data and information of the present document are based on our actual knowledge and other existing sources, according to the actual regulation 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 corrects in its application in all cases.