

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

Product form : Mixture
 Product name : GRO STOP ELECTRO
 Product code : CE 001 C0067
 Type of formulation : Hot fogging concentrate (HN)
 Active Ingredient : Chlorpropham

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

Main use category : Plant protection product for professional use. Agriculture.
 Use of the substance/mixture : Sprout inhibitor for potatoes.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

CERTIS EUROPE B.V.
 Safariweg 55
 3605 MA Maarssen - Nederland
 T + 31 (0) 346 290 600
info@certiseurope.nl - www.certiseurope.nl

1.4. Emergency telephone number

Emergency number : Certis Carechem24 multilingual 24 hours emergency number +44 (0) 37 00 492 795

SECTION 2: Hazards identification
2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]

Eye Irrit. 2	H319
Skin Sens. 1	H317
Acute Tox. 4 (Inhalation)	H332
Carc. 2	H351
STOT RE 2	H373
Aquatic Chronic 2	H411

Full text of hazard classes and H-statements : see section 16

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

GHS08

GHS09

Signal word (CLP) : Warning

Hazardous ingredients : Chlorpropham; Solvent; Ethoxylated fatty alcohol

Hazard statements (CLP)	: H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H332 - Harmful if inhaled. H351 - Suspected of causing cancer. H373 - May cause damage to organs through prolonged or repeated exposure. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P201 - Obtain special instructions before use. P261 - Avoid breathing mist/vapours/spray. P273 - Avoid release to the environment P280 - Wear protective gloves/protective clothing/eye protection/face protection. P308+P313 - IF exposed or concerned: Get medical advice/attention. P363 - Wash contaminated clothing before reuse. P501 - Dispose of contents/containers to a suitable disposal site in accordance with local and national regulations.
EUH-statements	: EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.

2.3. Other hazards

Other hazards not contributing to the classification : Product is a (weak) cholinesterase inhibitor.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Chlorpropham	(CAS No) 101-21-3 (EC no) 202-925-7 (EC index no) 006-096-00-0	< 60	Carc. 2, H351 STOT RE 2, H373 Aquatic Chronic 2, H411
Solvent	(CAS No) 97-53-0 (EC no) 202-589-1 (EC index no) -	< 40	Eye Irrit. 2, H319 Skin Sens. 1, H317
Alcohols, C12-16, ethoxylated	(CAS No) 68551-12-2 (EC no) - (EC index no) -	≤ 5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

Full text of H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: In the event of any complaints or symptoms, avoid further exposure.
First-aid measures after inhalation	: IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist call a doctor.
First-aid measures after skin contact	: IF ON SKIN: Wash with plenty of soap and water. Remove contaminated clothing and shoes. If skin irritation or rash occurs: Get medical advice/attention.

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.

Consult an eye specialist.

First-aid measures after ingestion : IF SWALLOWED: Immediately call a POISON CENTER or doctor.

Never give anything by mouth to an unconscious person.

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

Symptoms/injuries : Product is a (weak) cholinesterase inhibitor

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray
Dry chemical powder
Alcohol resistant foam
Carbon dioxide (CO₂).

Unsuitable extinguishing media : Jet of water.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustion or thermal decomposition may generate toxic vapours: chlorine compounds, nitrogen oxides, carbon monoxide, hydrocarbons.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire.
Fight fire from safe distance and protected location.
Do not breathe fumes
Cool closed containers exposed to fire with water spray
If possible, take the containers out of dangerous zone.
Contain fire-fighting water with dikes or absorbents to prevent migration and entry into sewers or streams.

Protection during firefighting : Wear suitable protective clothing, gloves, eye/face protection and respiratory protection
Wear a self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection.

Emergency procedures : Evacuate area.
Ensure adequate ventilation.
Avoid direct contact with the substance.
Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

Notify the authorities if product enters sewers or public waters

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.

Once absorbed collect spilled material with shovels, buckets and place in closed containers and label properly.

Remove as chemical waste, according to national or local legislation.

In the event of major spillage: contact an expert.

6.4. Reference to other sections

Reference to other sections (8, 13).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Read label before use.

Obtain special instructions before use.

Use only in well ventilated areas.

Avoid contact with eyes, skin, nose and mouth.

Wear suitable protective clothing, gloves and eye/face protection.

Do not breath spray/vapour.

Contaminated work clothing should not be allowed out of the workplace.

Wash contaminated clothing before reuse.

Opened containers must be carefully closed and kept upright to avoid leakage.

Hygiene measures : Always wash your hands immediately after handling this product, and once again before leaving the workplace.

Contaminated work clothing should not be allowed out of the workplace.

Do no eat, drink or smoke when using this product.

Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Prevent unauthorised access.

Keep locked up and out of the reach of children.

Keep in original containers, tightly closed.

Keep away from food, drink and animal feedingstuffs.

Protect against frost.

Keep away from heat and direct sunlight.

Maximum storage period : 24 months

Storage temperature : 1 - 45 °C

Packaging materials : Use original packaging.

7.3. Specific end use(s)


Sprout inhibitor for potatoes.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

: No occupational exposures limits have been established.

8.2. Exposure controls

Appropriate engineering controls	: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Personal protective equipment	: Protective clothing. Protective goggles. Gloves. Dust/aerosol mask.
	
Hand protection	: Wear impervious gloves chemical resistant nitrile rubber (EN 374-3)
Eye protection	: Safety goggles or a face shield. (EN 166)
Skin and body protection	: Protective clothing with long sleeves waterproof and resistant to chemicals. Rubber boots. (EN 1383-3/EN ISO 20345)
Respiratory protection	: Wear appropriate respirator for dust / organic vapors.
Hygiene measures	: Do not eat, drink or smoke while handling the product. Clean gloves with soap and water before removing. Wash hands and face with soap and water before eating, drinking or smoking. Clean equipment, premises and work clothes regularly. Work clothing should remain on the work area and stored separately from street clothes.
Environmental exposure controls	: Discharge into the environment must be avoided. Do not contaminate surface and groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Light yellow to dark brown (translucent)
Odour	: Cloves.
Odour threshold	: No data available
pH	: 6,15 – 6,6
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Chlorpropham: 36 - 49 °C
Freezing point	: No data available
Boiling point	: Chlorpropham: 256 – 258 °C
Flash point	: 136 °C
Self ignition temperature	: 430 °C
Decomposition temperature	: 330 - 495 °C
Flammability (solid, gas)	: Not applicable.
Vapour pressure	: Chlorpropham: 2,4 x 10 ⁻² Pa
Relative vapour density at 20 °C	: No data available
Relative density at 20 °C	: 1,128 g/mL
Water solubility at 20 °C	: Chlorpropham: 110 mg/L (pH 7)
Log Pow at 20 °C	: Chlorpropham: 3,7 (pH 7)
Log Kow	: No data available
Viscosity, kinematic	: 58,6 mm ² /s
Viscosity, dynamic	: 57,9 cP
Explosive properties	: It is not explosive.
Oxidising properties	: No data available
Explosive limits	: No data available
Surface tension	: At 25°C: 36,14 mN/m

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity
10.1. Reactivity

Burning may produce: toxic and corrosive vapours/gases.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Hazardous reaction : Will not occur. Hazardous polymerization will not occur.

10.4. Conditions to avoid

No specific conditions.

10.5. Incompatible materials

No specific substances.

10.6. Hazardous decomposition products

No data available.

SECTION 11: Toxicological information
11.1. Information on toxicological effects

Acute toxicity : Inhalation: Harmful if inhaled.

GRO STOP ELECTRO	
LD ₅₀ oral rat	> 2000 mg/kg bw
LD ₅₀ dermal rat	> 2000 mg/kg bw
LC ₅₀ inhalation rat	> 4,67 mg/l/4h

Chlorpropham (101-21-3)	
LD ₅₀ oral rat	> 2000 mg/kg
LD ₅₀ dermal rabbit	> 2000 mg/kg
LC ₅₀ inhalation rat	> 0,5 mg/l/4h

Skin corrosion/irritation : Not classified (No irritant to rabbit skin)

Serious eye damage/irritation : Irritant to rabbit eyes.

Respiratory or skin sensitisation : May cause an allergic skin reaction. (Guinea pig)

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

SECTION 12: Ecological information
12.1. Toxicity

Ecology - general : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Chlorpropham (101-21-3)	
LC50 (<i>Oncorhynchus mykiss</i>)	7,5 mg/l (96h)

Chlorpropham (101-21-3)	
LC50 (<i>Cyprinus carpio</i>)	5,3 mg/l
EC50 <i>Daphnia magna</i>	2,6 mg/l (48h)
EbC50 (<i>Navicula pelliculosa</i>)	1,0 mg/l

12.2. Persistence and degradability

GRO STOP ELECTRO	
Persistence and degradability	No data available.

12.3. Bioaccumulative potential

GRO STOP ELECTRO	
Bioaccumulative potential	No data available.

12.4. Mobility in soil

GRO STOP ELECTRO	
Surface tension	36,14 mN/m
Ecology - soil	No data available.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations
13.1. Waste treatment methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No. : 3082

UN-No.(IATA) : 3082

14.2. UN proper shipping name

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Transport document description : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, (E)

14.3. Transport hazard class(es)

Class (UN) : 9

Class (IATA) : 9 - Miscellaneous dangerous goods.

Hazard labels (UN) : 9


14.4. Packing group

Packing group (UN) : III

14.5. Environmental hazards

Dangerous for the environment :

Marine pollutant



Other information : No supplementary information available.

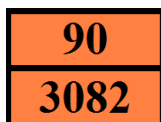
14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 90

Classification code (UN) : M6

Orange plates :



Special provision (ADR) : 274, 335, 601

Transport category (ADR) : 3

Tunnel restriction code : E

Limited quantities (ADR) : 5L

Excepted quantities (ADR) : E1

EAC code : •3Z

14.6.2. Transport by sea

EmS-No. (1) : F-A

EmS-No. (2) : S-F

14.6.3. Air transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

Other regulations, restrictions and prohibition regulations : Ensure all national/local regulations are observed.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes:

Change date	Previous Version	Section	Changed Item	Change	Comments
22/08/2013	2.0	9	Density	Added	Version 2.1 According to the Phytosafe study number: 02-69-006-ES
25/06/2014	2.1	9	Coulour: Dark Flammability Oxidising properties	Modified	
			pH: 6.6	Removed	

		11	LC50: 4.64	Modified	
			Skin irritant	Removed	
01/02/2016	2.2	1.3	Supplier: Xeda	Removed	
		8.2	updated		
		9.1	pH, Melting point, boiling point, vapour pressure, solubility	Added	
		12	Active ingredient information	Added	
10/03/2016	2.3	3.2	CAS Number of Megital (Alcohols, C12-16, ethoxylated)	Modified	
25/03/2016	2.4	13	Waste management method	Modified	
		3	Review		According to RAF R0067, Version: Sep 2014
27/09/2016	2.5	2	H332	Added	

Full text of H- and EUH-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects
EUH401	To avoid risks to human health and the environment, comply with the instructions for use