SAFETY DATA SHEET (SDS)	
TITLE:	**CLOMAZONE 360 CS**

1.0 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY / UNDERTAKING

1.1 Product Identifier

Product Name	:	AG CLOMAZONE 360 CS
Common Name	:	Clomazone 360 g/l CS
CAS No.	:	81777-89-1
EC No.	:	NA

1.2 Relevant identified uses of the substance: insecticide

1.3 Details of the Manufacturer / Supplier of the safety data sheet:

Supplier	AGROMEC SARL P.O.Box: 462 Jounieh, Lebanon
Tel	+961 9 226874
E-mail	agromec@agromec-international.com
Webpage	www.agromec-international.com

1.4 Emergency Phone Number (24 hours)

+961 3 980599

2.0 HAZARDS IDENTIFICATION

2.1 Classification of the mixture:

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

Aquatic Chronic 4 H413

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

R53

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

May cause long lasting harmful effects to aquatic life.

2.2. Label elements

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

Signal word (CLP) : -

Hazard statements (CLP) : H413 - May cause long lasting harmful effects to aquatic life

Precautionary statements (CLP) : P273 - Avoid release to the environment

P501 - Dispose of this material and its container to hazardous or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

EUH phrases :

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

2.3. Other hazards

No additional information available

3.0 COMPOSITION/INFORMATION ON INGREDIENTS

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Clomazone	(CAS No) 81777-89-1	< 35	Xn; R20/22 N; R50/53	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Sodium nitrate	(CAS No) 7631-99-4 (EC no) 231-554-3	5	O; R8 Xn; R22 Xi; R36/37/38	Ox. Sol. 1, H271 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
calcium chloride	(CAS No) 10043-52-4 (EC no) 233-140-8	5	Xi; R36	Eye Irrit. 2, H319

4.0 FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 General information

When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

4.1.2 In case of inhalation

Wearing proper respiratory protection before rescues. Immediately remove the affected victim from exposure to an area of fresh air. If not breathing, give artificial respiration; if breathe difficult, give oxygen. Get medical attention.

4.1.3 In case of skin contact

Flush with large amount of water; use soap or detergent if available. Remove grossly contaminated clothing, including shoes, and launder before reuse.

4.1.4 In case of eyes contact

Flush eyes with large amount of water until irritation subsides. If irritation persists, get medical attention.

4.1.5 In case of ingestion

If swallowed, rinse mouth with water. Keep patient at rest. Never give anything by mouth to an unconscious person. Do NOT induce vomiting unless told to by a poison control centre or doctor. Get immediate medical attention.

4.1.6 Note to physician

No specific antidote. Treat symptomatically and supportively.

4.1.7 Most important symptoms and effects, both acute and delayed :

This product or its components may have long term chronic health effects. No specific medical conditions are known which may be aggravated by exposure to this product. As with all materials which can cause upper respiratory tract irritation, persons with a history of asthma, emphysema or hyperactive airways disease may be more susceptible to overexposure.

5.0 FIRE – FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Foam, dry chemical, water spray or CO2 to extinguish fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : N/A

5.3 Advice for fire-fighters

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Keep unnecessary people away. Use as little water as possible. Dike area of fire to prevent material run-off. Decontaminate emergency personnel with soap and water before leaving the fire area. Avoid breathing dusts, vapours and fumes from burning materials. Control run-off water.

5.4 Fire and Explosion Hazards:

Flash point: >58°C. This product can form combustible mixtures at temperatures at or above the flash point. It may produce a floating fire hazard in extreme fire conditions.

6.0 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 Personal precautions

Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

6.2 Environmental precautions

Do not discharge into drains or rivers. Do not allow to enter soil, waterways or waste water canal. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.

6.3 Methods and material for containment and cleaning up

Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental precautions.

6.3.1 Other information

N/A

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

6.5 Additional information

In case materials are released, contact emergency response personnel. Keep unnecessary persons away. If emergency response personnel are unavailable, absorb small spills on spill pillows or other suitable absorbing material (sand or earth) and place in a sealed container for disposal. Dike large spills and transfer to an appropriate container for disposal. Avoid contact of spilled materials and runoff with soil and surface waterways. Use suitable protective equipment (Section 8). Follow all fire prevention procedures (Section 5).

7.0 HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures

Protect against physical damage. Use non-sparking type tools and equipment, including explosion proof ventilation. Do not contaminate lakes, streams, and ponds.

7.1.2 Advice on general occupational by hygiene

Avoid contact with eyes, skin or clothing. Do not breathe spray mist. When using, do not eat, drink, or smoke. Wash hands and exposed skin before meals and after work. Wash out container thoroughly and dispose of safely.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions	:	Store in the original container and keep closed. Store in cool, dry and well-ventilated place. Do not use, pour, or store near heat or open flame.
Further information on storage conditions	:	Keep out of reach of children. Keep away from food, drink and animal feeding stuffs.

8.0 EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

Not available

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure ventilation system.

8.2.2 Personal protection equipment

See section 8.2.3-8.2.5

8.2.3 Eye / Face protection

To protect against accidental eye contact, goggles/face-shield should be worn.

8.2.4 Skin Protection

Rubber gloves should be worn. Wash thoroughly with soap and water after handling.

8.2.5 Respiratory protection

Ensure good ventilation. For maximum protection, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus.

8.2.6 Other information

Follow all label instructions. Train employees in safe use of the product. Follow manufacturer's instructions for cleaning/maintaining personal protection equipment. Keep and wash personal protection equipment separately from other laundry.

9.0 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	light beige.
Odour	:	Slight aromatic.
Odour threshold	:	No data available
pH	:	8,87
pH solution	:	1 %
Relative evaporation rate (butyl acetate=1)	:	Not determined
Melting point	:	Not determined
Boiling point	:	Not determined
Flash point	:	> 79 °C
Auto-ignition temperature	:	392 °C
Decomposition temperature	:	Not determined
Flammability (solid, gas)	:	No data available
Vapour pressure	:	Not determined
Relative vapour density at 20 °C	:	Not determined
Relative density	:	1,1712 (20°C)
Solubility	:	Water: Dispersible
Log Pow	:	Not determined
Viscosity, kinematic	:	Not determined
Viscosity, dynamic	:	115 - 746 mPa.s (20°C)

Explosive properties	:	Not explosive.
Oxidising properties	:	Non oxidizing material.
Explosive limits	:	No data available

9.2 Other information

N/A

10.0 STABILITY AND RELIABILITY

10.1 Reactivity

No information available

10.2 Chemical stability

Stable under normal handling and storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known

10.4 Conditions to avoid

Avoid extreme heat

10.5 Incompatible materials

Avoid mix with strong oxidizing agent and alkaline substance.

10.6 Hazardous decomposition products

On thermal decomposition (pyrolysis), releases : Nitrogen oxides, Hydrochloric acid, Chlorine

Carbon oxydes (CO, CO2).

10.7 Hazard Polymerization

Will not occur.

11.0 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met

CLOMAZONE 360 CS	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 inhalation rat	> 5,21 mg/l/4h (maximum attainable concentration - zero mortality)

Skin corrosion/irritation	:	Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	:	Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	:	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	:	Not classified (Based on available data, the classification criteria are not met) Clomazone : No mutagenic effects were noted

Carcinogenicity	:	Not classified (Based on available data, the classification criteria are not met) Clomazone : No carcinogenic effect was noted
Reproductive toxicity	:	Not classified (Based on available data, the classification criteria are not met) Clomazone : Fertility and development toxicity tests did not reveal any effect on reproduction
Specific target organ toxicity (single exposure)	:	Not classified (Based on available data, the classification criteria are not met)

NOAEL, rat	1000 mg/kg bw/day (28 days)
NOAEL, rat	41 mg/kg bw/day (2 years)

12.0 ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - general : May cause long-term adverse effects to the aquatic environment

CLOMAZONE 360 CS	
LC50 fish	592,7 mg/l/96h
EC50 Daphnia	491,3 mg/l/48h
ErC50 (algae)	160,85 mg/l/96h
NOEC algae	93,9 mg/l/72h

12.2. Persistence and degradability

Clomazone (81777-89-1)	
Persistence and degradability	Half-life (whole system) : 40.4 - 66.9 days Half-life (in soil) : 15 – 90 days.

12.3. Bioaccumulative potential

Clomazone (81777-89-1)	
BCF	40
Log Pow	2,54 (23 °C)

13.0 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Container and washing must be disposed to an approved facility.

13.2 Product / Packaging disposal

13.2.1 Product waste disposal

Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

13.2.2 Packing waste disposal

Empty remaining contents. Triple rinse containers. Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.

14.0 TRANSPORT INFORMATION

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Other information: No supplementary information available.

14.6. Special precautions for user

Special transport precautions: No additional information available.

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

Not applicable

15.0 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 substance on the REACH candidate list

15.1.2. National regulations

No additional information available 15.2. Chemical safety assessment

A chemical safety assessment acc. to art. 14 of Regulation (EC) No 1907/2006 is not required, because art. 15 of the same regulation applies

16.0 OTHER INFORMATION

16.1 Further Information

The information contained herein relates only to the specified material identified. AGROMEC believes that such information is accurate and reliable as of the data of this material safety data sheet, but no representation, guarantee or warranty, expressed or implied, is made as to the accuracy, reliability, or completeness of the information. AGROMEC urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.