SAFETY DATA SHEET

Magister®CS

Date of Issue: November 2015

1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

Chemical name of active ingredient(s): **Clomazone**

Recommended use: **Herbicide**

Supplier: **Etec Crop Solutions Ltd**
31 Tamaki Bay Road
Pakuranga, Auckland
Phone 0800 100 325

Emergency telephone number: **0800 Poison (0800 764 766) 24 Hours**

2. HAZARDS IDENTIFICATION

Hazard Classification: **Ecotoxic - 9.1B, 9.2A**

Required identification Details:

MOST IMPORTANT HAZARDS :
Adverse human health effects : No specific risk when handled in accordance with good occupational
hygiene and safety practice, to our knowledge
Environmental effects : Presents no particular risk to the environment, provided the disposal
requirements (see section 13) and national or local regulations are complied
with.
Physical and chemical hazards :
- Fire or explosion : Slightly combustible. May support combustion at elevated temperatures
Burning and thermal decomposition may form toxic by-products

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation Information on hazardous ingredients

Common name	CAS No	%
Clomazone	81777-89-1	36
Sodium nitrate	7631-99-4	
Calcium chloride	10043-52-4	

4. FIRST-AID MEASURES

Description of necessary first aid measures:

Effects and symptoms Effects from overexposure from either swallowing, inhaling

First-aid measures

or coming into contact with the eyes or skin. Symptoms of overexposure include decreased activity, tearing eyes, bleeding from the nose and inco-ordination.

Inhalation: Remove to fresh air. If breathing difficulty or discomfort occurs and persists.

Ingestion: Do not induce vomiting and do not give liquids of any kind to the person. Never give anything by mouth to an unconscious person. See a medical doctor immediately

Skin contact: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

Eye contact: Flush with water for at least 15 minutes. If irritation occurs and persists, contact a medical doctor.

Notes to a physician: This product has low oral, dermal and inhalation toxicity. It is moderately irritating to the eyes and slightly irritating to the skin. Direct contact with eyes may produce corneal damage, especially if not washed out immediately. Inert ingredients contain xylene-range aromatic solvents which may produce a chemical pneumonities; therefore, vomiting is not recommended, and lavage requires intubation. Activated charcoal and cathartics will assist gastrointestinal tract evacuation.

5. FIRE-FIGHTING MEASURES

HAZCHEM Code: 3[Y]

Extinguishing media : Suitable extinguishing media : Foam
Carbon dioxide (CO2)
Powders

Hazardous thermal (de)composition products: Specific hazards : Toxic fumes are released
Specific fire fighting methods : Isolate fire area. Evacuate downwind
Do not dispose of fire-fighting water in the environment

Protection of fire-fighters: Do not attempt to fight the fire without suitable protective equipment
Do not breathe fumes
Protection of fire-fighters : Self-contained breathing apparatus
Complete protective clothing

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin and eyes
Do not breathe vapours.
Do not attempt to intervene without a suitable protective equipment.
- Disposal : Dispose of contaminated materials in accordance with current regulations

Environmental precautions: Do not allow product to spread into the environment
Contain the spilled material by bunding

Methods for cleaning up:

- Neutralization : Absorb spillage with:
- inert absorbent material.
- earth or sand

Neutralize non-recoverable product with :
- a 20 % solution of potassium hydroxide in methanol

Cover the treated area with plastic and let stand for 24 h. Remove the
covering and place in a drum for a later disposal.
- Cleaning/decontamination : Wash with plenty of water and detergent

To clean and

7. HANDLING AND STORAGE

Handling:

Technical measures : Vapour extraction at source
Precautions : Avoid any direct contact with the product
Work in a well-ventilated area

Storage:

- Recommended : Store :
- in a cool, dry area
- in a well-ventilated area
- protected from frost
- away from food and drinks and animal foodstuffs
- out of reach of children.

Packaging materials: 1,5 litre HDPE plastic bottle

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace Exposure Guidelines

Workplace exposure standards: NOT ESTABLISHED NZ

Exposure Standards outside The workplace: Not available

Engineering measures

Exposure control measures: Ensure good ventilation of the work station
Extraction to remove vapours at their source.

Personal Protective Equipment

Detail specifications for equipment:

Respiratory system: If the ventilation is suitable, it is not essential to wear respiratory equipment.

Skin and body: Depending on concentrations encountered, wear overalls, and head covering.

Hands: Neoprene protective gloves or Nitrile protective gloves

Eyes: For splash, mist or spray exposures, wear Safety spectacles

General hygiene: Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking or using tobacco. Shower at the end of the workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Colour:	Brown
Odour:	Slightly Aromatic
pH:	8.87 (Aqueous dispersion - 1 %)
Vapour Pressure:	N/A
Vapour Density:	1021 –1024 g/L
Boiling Point:	N/A
Freezing/melting point:	N/A
Solubility:	Disperses in water
Specific gravity or density:	1.16 g/cm³ at 20 °C
Flashpoint:	>93°C
Auto Ignition Point	392 °C
Octanol/water partition coefficient:	Clomazone :2.5
Explosion properties:	Not Explosive
Oxidation properties:	Not an Oxidising Agent

10. STABILITY AND REACTIVITY

Stability:	Stable under
Conditions to avoid:	Excessive heat and fire
Materials to avoid:	None known
Hazardous decomposition Products:	Carbon monoxide and/or carbon dioxide, oxides of nitrogen, chlorine and hydrogen chloride.
Hazardous polymerization:	Will not occur
Specific Data:	
Hazardous reactions :	

11.TOXICOLOGICAL INFORMATION

Acute toxicity – Oral :	LD 50 oral (Rat) : > 5000 mg/kg Local effects : Sensitization :
Acute toxicity - Dermal :	LD 50 skin (Rat) : > 5000 mg/kg
Acute toxicity – Inhalation: technical a.i.	LC_{50} 4.47 mg/l (4h) (rat)
Skin irritation :	Not irritating to rabbit skin
Eye irritation:	Not irritating to rabbit eyes
Sensitization :	Not sensitizing

Chronic toxicity

Liver enlargement and elevated cholesterol levels have been noted in studies on laboratory animals, where clomazone was ingested in large doses over the life span of the animals.
In studies with laboratory animals, clomazone did not cause reproductive or teratogenic effects or carcinogenicity.
ADI (Acceptable Daily Intake) for humans is 0.1 mg/kg bw/day.
The toxicity of the product may also be attributed to the solvent it contains which may cause central nervous system depression. Additive effects may occur with mixtures of

	solvents. Some solvents have irritating effects on the eyes and skin.
Reproduction toxicity:	Studies in laboratory animals did not cause reproductive toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity **Aquatic:**	Harmful to aquatic organisms. Risk of bioaccumulation in an aquatic species is low. Log Octanol/Water Partition Coefficient: 2.5 48hr LC50 (Daphnia magna): 5.2 mg/L. 96hr LC50 (rainbow trout): 19 mg/L. 96hr LC50 (bluegill sunfish): 34 mg/L.
Birds	Oral LD50 (mallard duck): >2,510 mg/kg. Dietary LD50 (mallard duck): >5,620 ppm in diet (8 days).
Water	Field studies showed that clomazone does not significantly leach below 15cm in soil and is, therefore, not expected to enter groundwater.
Persistence/degradability Soil	Clomazone is degraded in soils under aerobic and anaerobic conditions with half lives ranging between 1 to 4.5 months depending upon soil conditions.
Bioaccumulative potential :	Low, log Pow of 2.5, measured bio-concentration factor (BCF) of 27 –40.

13. DISPOSAL CONSIDERATIONS

Methods of disposal :	Triple rinse container and add residue to spray tank. Burn if permitted and circumstances, especially wind direction permit, otherwise bury in landfill.

14. TRANSPORT INFORMATION - International transport regulations

UN number:	3082
Class or Division:	9
Packing Group:	III
Marine Pollutant:	N/A
Proper shipping name :	N/A
INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):	Environmentally Hazardous substance, Liquid, N.O.S. (contains 360 g/L clomazone)

15. REGULATORY INFORMATION

ACVM Registered Number:	**P4142**
HSNO Approval Code:	**HSR007804**

16. OTHER INFORMATION

Additional information:

Original Issue Date: 31 November 2007
Revision Date: Nov 2014
Replaces: ES232

Disclaimer EXCLUSION OF LIABILITY: PLEASE READ
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