

## Safety Data Sheet

### ENVOY- Reg. No: L 10624 (Act No 36 of 1947)

Date of issue: 29/04/2019

1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER.	
<b>Product name:</b>	<b>ENVOY</b>
<b>Other means of identification:</b>	Diclosulam 210 g/L SC
<b>UN number:</b>	Herbicide.
<b>Recommended use:</b>	3082
<b>Restrictions on use:</b>	For use as an Agricultural remedy only.
<b>Distributed by:</b>	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 <a href="http://www.agritech.co.za">www.agritech.co.za</a>
<b>Emergency Number:</b>	POISON CENTRE (UNITAS HOSPITAL): 012 664 1100 WESTERN CAPE POISONS TELEPHONE SERVICE: 0861 555 777 RAPID SPILL RESPONSE: 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946
<b>Chemical Name:</b>	3-(3,4-dichlorophenyl)-1,1-dimethylurea
2) Classification of the substance / mixture:	
<b>Classification of the product:</b>	Not Classified Full text of R-phrases; see section 15.
<b>Label elements:</b>	<p><b>Hazard statement:</b></p> <p><b>Precautionary statements:</b></p> <p>P280 : Wear protective gloves / protective clothing / eye protection.</p> <p>P308 + P311: If exposed or concerned: Call a POISON CENTER or doctor / physician.</p> <p>P501 : Dispose of contents / container in accordance with local regulation.</p> <div style="text-align: center;">  </div> <p>Signal Word: <b>WARNING</b></p>

<b>Health effects: eyes:</b>	May cause mild irritation.
<b>Health effects: skin:</b>	May cause moderate irritation and may cause sensitization in some individuals.
<b>Health effects: ingestion</b>	Harmful if swallowed. Some signs of central nervous system depression have been noted at high levels of diuron exposure. For humans, the only reported case of acute, oral exposure to the herbicide produced no significant symptoms or toxicity
<b>Health effects: inhalation</b>	Minimally toxic. Harmful if inhaled. May cause irritation of the nose and throat.
<b>Health effects: Other</b>	

### 3) COMPOSITION / INFORMATION ON INGREDIENTS:

Mixture:

Chemical name	Composition	CAS No.	EC No.	Classification according to Regulation EC 1272/2008 (CLP)	Classification according to 67/548/EEC
Diclosulam	21 %	203313-25-1		Not classified	Not classified

Full text of R- and S-phrases: see section 15.

### 4) First Aid Measures:

<b>Eye contact:</b>	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Obtain medical attention if irritation persists.
<b>Skin contact:</b>	Thoroughly wash body with large amounts of water and soap. Remove contaminated clothing and footwear. Wash affected areas with soap and water. Persons providing first aid must wear gloves to avoid self-contamination. Seek medical assistance should irritation persist. Wash contaminated clothing before re-use
<b>Ingestion:</b>	Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. One or two glasses of water may be given. For advice, contact the National Poisons Centre. Seek medical assistance immediately.
<b>Inhalation:</b>	Remove patient to fresh air. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance.

<p><b>Most important symptoms and effects, acute and delayed:</b></p> <p><b>Indication of immediate medical attention and special treatment needed: Advice to physician</b></p>	<p>None known</p> <p>No specific antidote is known. Treat symptomatically and supportively as and when needed. Gastric lavage and catharsis could be considered when large quantities of the product has been ingested. Give oxygen if the respiration is depressed. Methemoglobinemia may be noted. If the patient is symptomatic and cyanotic, or the methemoglobin level is greater than 30% in an asymptomatic patient, administer 1 – 2 mg/kg of 1% methylene blue slowly IV.</p>
<p><b>5) Fire-Fighting Measures:</b></p>	
<p><b>Suitable extinguishing media:</b></p> <p><b>Unsuitable extinguishing media:</b></p> <p><b>Special hazards arising from the substance or mixture:</b></p>	<p>Water fog or fine spray, Dry chemical fire extinguishers, alcohol-resistant foam, carbon dioxide or sand..</p> <p>Do not use high volume water jet, due to contamination risk.</p>
<p><b>Fire-fighting:</b></p>	<p>Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.</p> <p>Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. If area is heavily exposed to fire and if conditions permit, let fire burn itself out. Contain fire control agents for later disposal.</p> <p>Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Do not scatter the material. Avoid pollution of waterways.</p> <p>May generate poisonous and corrosive vapours of carbon oxides, nitrogen oxides and corrosive fumes of chloride, toxic mists or other products of combustion.</p>
<p><b>Protective clothing:</b></p>	<p>Full protective clothing and self-contained breathing apparatus. .When fighting a major fire wear an air-supplied respirator.</p>
<p><b>6) Accidental Release Measures:</b></p>	
<p><b>Personal precautions:</b></p> <p><b>Environmental precautions:</b></p> <p><b>Cleaning procedure:</b></p>	<p>Avoid contact with skin and eyes. Do not breathe in the spray or fumes. For personal protection see section 8.</p> <p>Do not contaminate waterways, drains and groundwater. If contamination of waterways, drains, rivers or lakes is unavoidable, warn the local authorities (Police and Department of Water/Environmental affairs) immediately.</p> <p>Wear protective clothing. Clear area of unprotected personnel. Contain and absorb liquid spills with inert material and place in waste containers. Wash area with water containing soda or detergent and absorb with further inert material. If spill does enter waterways contact the local authority. Heavily contaminated soil layers should be removed and disposed of in an approved way. Spilled product cannot be re-used and must be disposed of by incineration or disposal in a chemical waste disposal facility. If containers cannot be recycled, they should be disposed of together with the waste chemical</p>

**Disposal:****Waste Disposal:**

In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:**

Refer to the product label for instructions.

If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product.

**DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.**

Do not transport if this container is damaged or leaking.

**7) Handling & Storage:****Handling:**

Avoid skin and eye contact and inhalation of spray mist. Keep away from heat and sources of ignition. Ensure adequate ventilation.

Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Wash contaminated clothing before re-use.

**APPROVED HANDLER:** This product must be under the control of an approved handler when applied in a wide dispersive manner; or used by a commercial contractor.  
**BEWARE:** Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants.

**Storage:**

Store in the original container tightly closed and in a locked, dry, cool, well-ventilated area away from foodstuffs, fertilisers, seeds, drink, pharmaceuticals or cosmetics. Store in compliance with local regulations. Protect from excessive heat and cold.

Keep away from children or uninformed persons.

Keep away from direct sunlight.

Suitable materials: HDPE (High Density Polyethylene)

**8) Exposure Control / Personal Protection:**

It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

Component	Exposure Limits	Basis
Diclosulam	Mg/m3 (TWA)	Internal Occupational Exposure Standard.

**PERSONAL PROTECTIVE EQUIPMENT:****Clothing:**

Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

**Gloves:**

Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance

**Eye protection:**

The use of safety goggles with side shields is recommended.

<b>Respiratory protection:</b>	Wear respirator if ventilation is inadequate or exposure to high levels are likely
<b>Emergency eye wash:</b>	Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.
<b>9) Physical &amp; Chemical Properties:</b>	
<b>Form:</b>	Liquid
<b>Colour:</b>	Light Pink
<b>Odour:</b>	Mild chemical odour
<b>Odour threshold:</b>	No data available
<b>Density:</b>	±1.11 g/L
<b>pH:</b>	5.0-7.0
<b>Melting point / Freezing point</b>	No data available
<b>Initial boiling point and boiling range</b>	Not flammable
<b>Flash point:</b>	No data available
<b>Evaporation rate:</b>	Not flammable
<b>Flammability (solid, gas)</b>	No data available
<b>Upper/ lower flammability or explosive limits:</b>	No data available
<b>Vapour pressure:</b>	No data available
<b>Vapour density:</b>	No data available
<b>Relative density:</b>	No data available
<b>Solubility(ies)</b>	Miscible in water.
<b>Partition coefficient: n-octanol/water</b>	Diclosulam: log Pow: 0.85 at pH 7.0
<b>Auto-ignition temperature:</b>	No data available
<b>Viscosity:</b>	No data available
<b>10) Stability &amp; Reactivity:</b>	
<b>Reactivity:</b>	No hazardous reactions known. Hazardous polymerisation does not occur. Combustion or thermal decomposition will evolve toxic and irritating vapours. Stable under normal conditions.
<b>Chemical stability:</b>	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture Stable in neutral media, hydrolyzed by acids and alkalis and at elevated temperatures Avoid strong acids and alkalis
<b>Hazardous decomposition product(s):</b>	None under normal conditions of storage and of use.
<b>Conditions to avoid:</b>	No data available
<b>Incompatible materials:</b>	No data available.Store only in the original container.
<b>11) Toxicological Information:</b>	
Acute:	
Oral LD <sub>50</sub>	>2 000 mg/kg, rat
Dermal LD <sub>50</sub>	> 2 000 mg/kg, rats
Inhalation LC <sub>50</sub> (4h):	> 4.45 mg/L air, rat. (GHS,3)
Skin irritation	: Non-irritant, rabbit.
Eye irritation	: Non-irritant, rabbit.

Sensitisation : Grade I, Weak sensitizer..

Other :

#### Repeated dose toxicity

This statement has been derived from the properties of the active ingredient. Diclosulam did not cause any specific target organ toxicity in experimental animal studies.

#### Mutagenicity:

This statement has been derived from the properties of the active ingredient. Tests revealed no mutagenic or genotoxic potential based on the overall weight of evidence in a battery of in vitro and in vivo tests.

#### Carcinogenicity:

The statement has been derived from the properties of the active ingredient. Tests revealed no indication of a carcinogenic effects in lifetime feeding studies in rats and mice.

#### Teratogenicity:

The statement has been derived from the properties of the active. Diclosulam did not cause developmental toxicity.

### 12) Ecological Information:

#### Information below based on active ingredient: DICLOSULAM

**Bees:** LC<sub>50</sub> (oral & contact): > 25 ug/kg/bee. Not toxic to bees.

**Birds:** LD<sub>50</sub>: for bobwhite quail >2250 mg/kg. Acute dietary LC<sub>50</sub> for bobwhite quail and mallard ducks >5620 ppm.

**Fish:** LC<sub>50</sub> (96hrs) for Rainbow trout >110, bluegill sunfish >137, sheepshead minnows >120 mg/l. Daphnia : LC<sub>50</sub> (48 h) 144 mg/l.

**Algae:** EC<sub>50</sub> (14 d) for green algae (*Selenastrum capricornutum*) 1.6, blue-green algae (*Anabaena flos-aquae*) 83 µg/l; NOEC for green algae 1.6, blue-green algae 561 µg/l.

**Worms:** LC<sub>50</sub> (14 d) for earthworms >991 mg/kg. Other aquatic invertebrates: Non-biting midge (*Chironomus riparius*) (28 d) 0.46 mg/L

**Other aquatic species:** LC<sub>50</sub> (96 h) for grass shrimps >120, eastern oysters >120 mg/l. EC<sub>50</sub> for Lemna sp. 1.16 µg/l.

**Persistence:** No relevant information available

**Biodegradability:** No relevant information available

#### Bioaccumulative potential

**Bioaccumulation:** Bioaccumulative potential is low )BCF less than or log Pow less than 3)

#### Mobility in soil

Diclosulam: Potential for mobility in soil is high (Koc between 50 and 150).

Results of PBT and vPvB assessment

PBT and vPvB assessment: Diclosulam: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

#### Other adverse effects:

Additional ecological information: No other effects to be mentioned.

### 13) Disposal Considerations:

**Waste Disposal:** In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Refer to the product label for instructions. Triple rinse empty containers before disposal in the following manner: Invert the container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed to a drip. Thereafter, rinse the container three times with a volume of water equal to a third of that of the container volume. Add rinsing to the contents of the spray tank before destroying the container in the prescribed manner. Empty containers should not be burnt; puncture and flatten containers and dispose at a licensed landfill site according to local regulations. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Prevent contamination of water sources, food or feed by disposal. **DO NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE.** If recycling, replace cap and take containers to the designated recycling point. If containers cannot be recycled, they should be disposed of together with the waste chemical according to local regulations.

### 14) Transportation Information:

UN NUMBER: 3082

Road Transport ADR/ RID:

Class: 9, Miscellaneous Dangerous Goods

Packaging group: III

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DICLOSULAM)

Maritime Transport IMDG / IMO:

Marine Pollutant: Yes

Class: 9, Miscellaneous Dangerous Goods

Packaging group: III

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DICLOSULAM)

Air Transport ICAO/IATA:

Class: 9, Miscellaneous Dangerous Goods

Packing group: III

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DICLOSULAM)

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC code): NA

#### 15) Regulatory Information:

**Labelling according to EC directives:**

**Hazardous components which must be listed on the label: DICLOSULAM**

**Symbols:**

N - Dangerous for the environment

**Risk – Phrase (s):**

R 20/22 -Harmful by inhalation and if swallowed

R 36/37/38 - Irritating to eyes, respiratory system and skin.

R 40 - Limited evidence of a carcinogenic effect.

R 43 - May cause sensitization by skin contact

R48 - Danger of serious damage to health by prolonged exposure.

R50/53 - Very toxic to aquatic organisms

**Safety – Phrase (s):**

S 2 - Keep out of the reach of children.

S 7 - Keep the container tightly closed

S 13 – Keep away from food, drink and animal feeding stuffs.

S20/21 – When using, do not eat drink or smoke.

S23 - Do not breathe fumes/vapour/spray. S 24/25 - Avoid contact with skin and eyes.

S 36/37 - Wear suitable protective clothing and gloves.

S38 - In case of insufficient ventilation, wear suitable respiratory equipment.

S46 –If swallowed, seek medical advice immediately and show this container.

S60 - This material and its container must be disposed of as hazardous waste.

S61 - Avoid release to the environment. Refer to special instructions / safety data sheets.

**Hazard Statements**

#### 16.Other Information

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a

new danger will not appear.

It is the responsibility of persons in receipt of this SDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with this product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this SDS to their own SDS.

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