


## Safety Data Sheet

### CYCLONE ELITE- Reg. No: L 8881 (Act No 36 of 1947)

Date of issue: 16/05/2012

Date of revision: 26/06/2019

1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER.	
<b>Product name:</b>	<b>CYCLONE</b>
<b>Other means of identification:</b>	Sulcotrione 200 g/L; Flumetsulum 25 g/L SC
<b>UN number:</b>	3082
<b>Recommended use:</b>	Herbicide
<b>Restrictions on use:</b>	None known
<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>	2-[2-chloro-4-(methylsulfonyl)benzoyl]-1,3cyclohexanedione N-(2,6-difluorophenyl)-5-methyl[1,2,4]triazolo[1,5a]pyrimidine-2-sulfonamide
2) Classification of the substance / mixture:	
<b>Classification of the product:</b>	Skin Sens. 1: H317: Repr. 2: H316d: STOT RE 2: H373 Aquatic acute 1: H400: Aquatic chronic 1: H410: Xi-R22; R 36/38; R43 N-R50/53 Full text of R and S-phrases: see section 15.
<b>Label elements:</b>	<b>Hazard statement:</b> H410: Very toxic to the aquatic life with long lasting effects  <b>Precautionary statements:</b> P410: Keep out of reach of children P501: Dispose of contents/ Container to an approved waste disposal plant.  <b>Pictogram:</b> 

	Signal Word: <b>WARNING</b>
<b>Health effects: eyes:</b>	Moderate irritant to eyes causing redness, pain and blurred vision.
<b>Health effects: skin:</b>	May be irritant to skin and cause redness and discomfort. The product may be a strong skin \ sensitizer.
<b>Health effects: ingestion</b>	Low oral toxicity. Ingestion of large quantities may cause nausea, vomiting, abdominal distress, diarrhea and muscle spasms.
<b>Health effects: inhalation</b>	Moderate irritant to eyes causing redness, pain and blurred vision.
<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
Sulcotrione	25%	99105-77-8	619-394-6	Skin Sens. 1: H317:. Repr. 2: H316d:. STOT RE 2: H373 Aquatic acute 1: H400: Very toxic to aquatic life.  Aquatic chronic 1: H410:.	Xi-R22; R 36/38 ;R43 N-R50/53
Flumetsulam	2.5%	98967-40-9		Aquatic acute 1: H400:  Aquatic chronic 1: H410:	

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 antidote is known. Treat symptomatically and supportively as and when needed. If large amounts have been ingested, perform gastric lavage and administer activated charcoal. If product is aspirated into the lungs during ingestion or vomiting, mild to severe pulmonary injury may be caused.</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>For small fires, use foam, carbon dioxide, dry powder or halon extinguishing agents. For large fires, use foam or water-fog; avoid use of water jet. Contain run-off water with, for example, temporary earth barriers.</p> <p>No information available</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. 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. 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>UNUSUAL FIRE OR EXPLOSION HAZARDS: Generating poisonous and corrosive fumes.</p>
<p><b>Protective clothing:</b></p>	<p>Full protective clothing and self-contained breathing apparatus</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>Do not inhale vapour or spray. Avoid contact with skin and eyes. 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>

<b>Disposal:</b>	<b>Waste Disposal:</b> <p>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.</p> <p><b>Container Disposal:</b></p> <p>Refer to the product label for instructions.</p> <p>If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product.</p> <p><b>DO NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE.</b></p> <p>Do not transport if this container is damaged or leaking.</p>
<b>7) Handling &amp; Storage:</b>	
<b>Handling:</b>	<p>Avoid skin and eye contact and inhalation of spray mist. Keep away from heat and sources of ignition. Ensure adequate ventilation.</p> <p>Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Wash contaminated clothing before re-use.</p> <p>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.</p>
<b>Storage:</b>	<p>Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds. Keep away from children or uninformed persons. Avoid extreme temperatures. Local regulations should be complied with.</p>
<b>8) Exposure Control / Personal Protection:</b>	
<p>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.</p> <p><b><u>PERSONAL PROTECTIVE EQUIPMENT:</u></b></p>	
<b>Clothing:</b>	<p>Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.</p>
<b>Gloves:</b>	<p>Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance</p>
<b>Eye protection:</b>	<p>The use of safety goggles with side shields is recommended.</p>
<b>Respiratory protection:</b>	<p>Wear respirator if ventilation is inadequate or exposure to high levels are likely</p>
<b>Emergency eye wash:</b>	<p>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.</p>
<b>9) Physical &amp; Chemical Properties:</b>	

<b>Form:</b>	Liquid
<b>Colour:</b>	Tan
<b>Odour:</b>	Characteristic odour
<b>Odour threshold:</b>	No data available
<b>pH:</b>	±3.3
<b>Melting point / Freezing point</b>	No data available
<b>Initial boiling point and boiling range</b>	No data available
<b>Flash point:</b>	Not flammable
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas)</b>	Not flammable
<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>	±1.01
<b>Solubility(ies)</b>	Suspendible in water.
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Viscosity:</b>	No data available

#### 10) Stability & Reactivity:

<b>Reactivity:</b>	Spray solutions containing this product should be mixed or applied using stainless steel, aluminium, fibreglass or plastic-lined containers. Compatible with most herbicides at normal rates, but flocculation might occur with paraquat.
<b>Chemical stability:</b>	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Relatively stable in neutral, weakly acids and alkaline media, but rapidly hydrolyzed to the hydroxy derivatives in strong acids and alkaline and at 70 OC neutral media.
<b>Hazardous decomposition product(s):</b>	Combustion or thermal decomposition will evolve toxic and irritant vapours of chlorine and nitrous oxides
<b>Conditions to avoid:</b>	Avoid extreme temperatures.
<b>Incompatible materials:</b>	Spray solutions containing this product should be mixed or applied using stainless steel, aluminium, fibreglass or plastic-lined containers. Compatible with most herbicides at normal rates, but flocculation might occur with paraquat.

#### 11) Toxicological Information:

<b>Acute:</b>	
Oral LD50	> 3 000 mg/kg, rat (Calculated)
Dermal LD50	> 3000 mg/kg, rats – (calculated):Sulcotrione > 2000 mg/kg, rats – (Calculated) Flumetsulam
Inhalation LC50 (4h)	> 1,6 mg/7 air – Sulcotrione > 1,6 mg/7 air – Flumetsulam)
Skin irritation	: Mild skin irritant, rabbit
Eye irritation	: Mild irritant, rabbit (Reversible)
Sensitisation	: May cause sensitization, guinea pigs.
Other	:
<b>Repeated dose toxicity</b>	

**Mutagenicity:** Not mutagenic

**Carcinogenicity:** No classified

**Teratogenicity:** Not teratogenic in animal experiments

## 12) Ecological Information:

**Information below based on active ingredient:**

### **SULCOTRIONE:**

**Bees:** LC50 (oral & contact): > 200 Kg/bee. Not toxic to bees.

**Birds:** LD50: Bobwhite quail: > 5620 mg/kg, Mallard duck: > 5620 mg/kg. Practically nontoxic to birds.

**Fish:** LC50 (96hrs) Rainbow trout: 227 mg/L, Mirror carp: 240 mg/L, Daphnia: Moderately to very toxic to Daphnia, LC50 48 hours: > 200 mg/L Moderately to very toxic to fish

**Worms:** LC<sub>50</sub> for earthworms (*Eisenia foetida*) >4050 mg/kg.

**Other aquatic species:**

**Stability in water:** Not available.

**Stability in soil:** Rapidly degraded in soil, lab. DT50 4 – 90 days; field DT50 1 – 11 days. The major metabolite is 2-chloro-4-methylsulfonylbenzoic acid. Koc 17 – 58. No adverse effects on soil micro-organisms.

**Mobility:** Not available.

**Bioaccumulation:** Not available.

Sulcotrione is rapidly degraded in soil; DT50 of 15 to 74 days obtain under laboratory conditions and DT50 of 1 to 11 days under field conditions. The major metabolite is 2-chloro-4-methylsulfonylbenzoic acid. Koc 44 (high pH, sandy clay loam) to 940 (low pH, sand). No adverse effects on soil micro-organisms.

### **FLUMETSULAM**

**Bees:** LC50 >100 µg/bee. NOEL 36 µg/bee.

**Birds:** LD50 (Acute oral) for bobwhite quail >2250 mg/l. Dietary LC50 (8 d) for bobwhite quail and mallard ducks >5620 mg/L.

**Fish:** LC50 (96 h) for silverside minnows >379 mg/L. Non-toxic to fathead minnows and bluegill sunfish. Daphnia Non-toxic.

**Algae:** EC50 (5 d) for green algae (*Selenastrum capricornutum*) 4.9, blue-green algae (*Anabaena flos-aquae*) 167 µg/L.

**Worms:** LC50 (14 d) >950 mg/kg soil.

**Other aquatic spp.** LC50 for shrimps >349 mg/L.

**Stability in water:** No data available

**Stability in soil:** Availability in soil is principally dependent on soil pH and organic matter. DT50 in soil (soil (25 °C, pH ≥7, o.m. <4%; or pH 6–7, o.m. c. 1%) ≤1 mo. DT50 in soil (pH 6–7, o.m. 2–4%) 1–2 mo. Koc 5–182; Kd 0.05–2.4.

**Mobility:** Potential for mobility in soil is very high (KOC 0 – 50)

**Bioaccumulation:** Bio-concentration potential is low (BCF<100 or Log POW < 3)

## 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 NOT 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

Packaging group: III

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SULCOTRIONE AND FLUMETSULAM)

Maritime Transport IMDG / IMO:

Marine Pollutant: Yes

Class: 9

Packaging group: III

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SULCOTRIONE AND FLUMETSULAM)

Air Transport ICAO/IATA:

Class: 9

Packing group: III

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SULCOTRIONE AND FLUMETSULAM)

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: SULCOTRIONE AND FLUMETSULUM**

**Symbols:** Xi – Irritant

N - Dangerous for the environment

**Risk – Phrase (s):**

R22 - Harmful if swallowed.

R 36/38 - Irritating to eyes and skin.

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, may cause long-term adverse effects in the aquatic environment.

**Safety – Phrase (s):**

S1/2 - Keep locked up and out of the reach of children.

S 24/25 - Avoid contact with skin and eyes.

S 36/39 - Wear suitable protective clothing and eye/face protection.

S 60 - This material and its container must be disposed of as hazardous waste.

S 61 - 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.

The information contained herein is provided in good faith but makes no representation as to its comprehensiveness or accuracy. A properly trained person using this product intends this document only as a guide to the appropriate handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

MERIDIAN AGRITECH MAKES NO REPRESENTATION OR WARRANTIES, EITHER EXPRESSES OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANT ABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MERIDIAN AGRITECH (PTY) LTD WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.