

Safety Data Sheet

FLICK-FLACK - Reg. No: L 10154 (Act No 36 of 1947)

Date of issue: June 2015

Revision date: January 2020 (1)

1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER.	
Product name:	FLICK-FLACK
Other means of identification:	Florasulam 75 g/L / Flumetsulam 100 g/L
UN number:	3082
Recommended use:	Herbicide
Restrictions on use:	Agriculture
Distributed by:	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 www.agritech.co.za
Emergency Number:	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
Chemical Name:	Florasulam :N-(2,6-Difluorophenyl)-8-fluoro-5-methoxy-[1,2,4]triazolo[1,5-c]pyrimidine-2-sulfonamide Flumetsulam: 2',6'-Difluoro-5-methyl-[1,2,4] triazolo[1,5-a]pyrimidine-2-sulfonanilide
2) Classification of the substance / mixture:	
Classification of the product:	Aquatic Acute 1: (H400) Aquatic chronic: (H410) Full text of R-phrases; see section 15
Label elements:	Hazard Pictogram (S):  Signal Word: WARNING Hazard statement(s) H400: Very toxic to aquatic life. H410 : Very toxic to aquatic life with long lasting effects Precautionary Statement(s) P102: Keep out of reach of children. P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been

	<p>read and understood.</p> <p>P261: Avoid breathing fumes, mists, vapours or spray.</p> <p>P262: Do not get in eyes, on skin, or on clothing.</p> <p>P264: Wash contacted areas thoroughly after handling.</p> <p>P270: Do not eat, drink or smoke when using this product.</p> <p>P271: Use only outdoors or in a well ventilated area.</p> <p>P272: Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273: Avoid release to the environment.</p> <p>P280: Wear protective gloves, protective clothing and eye or face protection.</p> <p>P362: Take off contaminated clothing and wash before reuse.</p> <p>P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P302+P352: IF ON SKIN: Wash with plenty of soap and water.</p> <p>P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308+P313: If exposed or concerned: Get medical advice.</p> <p>P333+P313: If skin irritation or rash occurs: Get medical advice.</p> <p>P337+P313: If eye irritation persists: Get medical advice.</p> <p>P391: Collect spillage.</p> <p>P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog.</p> <p>P405: Store locked up.</p> <p>P410: Protect from sunlight.</p> <p>P402+P404: Store in a dry place. Store in a closed container.</p> <p>P403+P235: Store in a well-ventilated place. Keep cool.</p> <p>P501: Dispose of contents and containers as specified on the registered label.</p> <p>Other hazard(s) None known</p>				
Health effects: eyes:	May cause irritation.				
Health effects: skin:	May cause irritation.				
Health effects: ingestion	Single dose oral toxicity considered to be low				
Health effects: inhalation	May be harmful				
Health effects: Other					
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
Florasulam	7.5%	145701-23-1		Aquatic Acute 1: H400: Very toxic to aquatic life Aquatic chronic: H410: Very toxic to aquatic life with long lasting effects	N; R50/53 S60 S61
Flumetsulam	10.0%	98967-40-9		Aquatic Acute 1: H400: Very toxic to aquatic life Aquatic chronic: H410: Very toxic to aquatic life with long lasting effects	Not classified

				H332: Harmful if inhaled.	
Xanthan gum	<.05%	11138-66-2	234-394-2	<p>Skin Irrit. 2: H315: Causes skin irritation</p> <p>Eye Irrit. 2: H319: Causes serious eye irritation.</p> <p>Skin Sens.1: May cause an allergic skin reaction</p>	Not classified

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

4) First Aid Measures:

Eye contact:	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance.
Skin contact:	Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. Do not rub skin. Seek medical assistance should irritation persist.
Ingestion:	<p>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.</p> <p>Seek medical assistance immediately.</p>
Inhalation:	<p>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.</p> <p>Seek medical assistance.</p>
Most important symptoms and effects, acute and delayed:	
Indication of immediate medical attention and special treatment needed: Advice to physician	No specific antidote is available Treat symptomatically and supportively. when considering emptying the stomach.

5) Fire-Fighting Measures:

Suitable extinguishing media:	Use foam, carbon dioxide, dry extinguishing media, water mist or fog (avoid water jet).
Unsuitable extinguishing media:	No information available
Special hazards arising from the substance or mixture:	This product may generate poisonous, explosive and corrosive fumes (carbon monoxide and nitrous gases) Keep upwind.

Fire-fighting:	<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. 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. (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Water can be used to cool unaffected containers but must be contained for later disposal. Do not scatter the material. Bund area with sand or earth to avoid pollution of waterways. Water can be used to cool containers. Dispose of extinguishing agent and spillage in a safe way at a later stage.</p> <p>Product may generate toxic and / or irritating fumes during a fire.</p>
Protective clothing:	Full protective clothing and self-contained breathing apparatus
6) Accidental Release Measures:	
Personal precautions: Environmental precautions: Cleaning procedure: Disposal:	<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> <p>Waste Disposal:</p> <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>Container Disposal:</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>DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.</p> <p>Do not transport if this container is damaged or leaking.</p>
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.

<p>Storage:</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> <p>Store under lock and key only in the original container, tightly closed, in a well-ventilated, cool, dry, secure area away from children, foods and animal feeds. Protect from heat, moisture and direct sunlight.</p> <p>Store away from sun and damp. Avoid storage at temperatures above 35 °C.</p>
<p>8) Exposure Control / Personal Protection:</p>	
<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><u>PERSONAL PROTECTIVE EQUIPMENT:</u></p> <p>Clothing:</p> <p>Gloves:</p> <p>Eye protection:</p> <p>Respiratory protection:</p> <p>Emergency eye wash:</p>	<p>Consult supplier to confirm that the equipment is suitable</p> <p>Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.</p> <p>Suitable chemically resistant (such as nitrile or butyl) gloves, with prolonged, direct contact. (Recommended: Protective index 6, corresponding to >480 minutes of permeation time according to EN 374) e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.</p> <p>The use of safety goggles with side shields is recommended.</p> <p>Wear respirator if ventilation is inadequate or exposure to high levels are likely</p> <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>
<p>9) Physical & Chemical Properties:</p>	
<p>Form:</p> <p>Colour:</p> <p>Odour:</p> <p>Odour threshold:</p> <p>pH:</p> <p>Melting point / Freezing point</p> <p>Initial boiling point and boiling range</p> <p>Flash point:</p> <p>Evaporation rate:</p>	<p>Liquid</p> <p>Light grey</p> <p>Characteristics, Mild, Sweet</p> <p>No data available</p> <p>4.9-5.05</p> <p>No data available</p> <p>No data available</p> <p>>65 °C</p> <p>No data available</p>

Flammability (solid, gas)	Flammable
Upper/ lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	± 1.07 g/L
Solubility(ies)	Emulsifiable in water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature:	No data available
Viscosity:	No data available
10) Stability & Reactivity:	
Reactivity:	No hazardous reactions if stored and handled as indicated / prescribed.
Chemical stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Thermally and chemically stable.
Hazardous decomposition product(s):	No hazardous reactions decomposition if stored and handled as indicated.
Conditions to avoid:	Segregate from food and animal feeds. Keep away from heat and protect from direct sunlight. Avoid storage at temperatures above 35 °C. Avoid extremes of temperature.
Incompatible materials:	Avoid strong bases, strong acids and strong oxidizing agents.
11) Toxicological Information:	
<p>Acute:</p> <p>Oral LD50 > 5 00mg/kg, rat</p> <p>Dermal LD50 > 2 000 mg/kg, rat</p> <p>Inhalation LC50 (4h): No adverse effects anticipated by this route of exposure incidental to proper handling.</p> <p>Skin irritation : Moderate irritant, rabbit</p> <p>Eye irritation : May cause slight, temporary, eye irritation.</p> <p>Sensitisation : Non-sensitizing to guinea pig skin. Other :</p>	
Repeated dose toxicity:	
The statement has been derived from the properties of the individual components. Tests revealed no substance-specific organ toxicity after repeated administration to animals.	
Mutagenicity:	
The statement has been derived from the properties of the individual components. Tests revealed no genotoxic potential.	
Carcinogenicity:	
The statement has been derived from the properties of the individual components. Tests revealed no indication of a carcinogenic effect.	
Reproductive toxicity:	
The statement has been derived from the properties of the individual components. Tests revealed no indication of a fertility impairing effect.	
Teratogenicity:	
The statement has been derived from the properties of the individual components. Tests revealed no indication of developmental toxic effects at dosage rates that were not toxic to the parent animals.	
12) Ecological Information:	

Information below based on active ingredient:

Bees: LD₅₀ 100 µg/bee; (contact) >200 µg/bee. Low toxicity

Birds: LD₅₀ (oral) for bobwhite quail >1000 mg/L. LC₅₀ (8 d) (Dietary) for bobwhite quail and mallard ducks >5620 mg/L.

Fish : LC₅₀ (96 h) for rainbow trout > 100 mg/L). Not harmful

Algae : IC₅₀ < 1.0 mg/L. Very toxic to algae

Worms: LC₅₀ (14d) for Eisenia foetida >920 mg/kg soil.

Other aquatic species: Aquatic invertebrates: Not harmful to aquatic invertebrates on an acute basis (EC₅₀ > 100 mg/L)

Persistence and degradability:

Florasulam

The half-life in soils is dependent on the soil type and conditions and is approximately 2 – 18 days. There is no evidence of any significant leaching. Therefore, it is unlikely to contaminate ground water. .

Has been shown to break down quickly in soil and water systems by microbial degradation.

The potential for groundwater contamination is low because of the low use rates, short soil half-life and limited soil mobility.

Biodegradation: Not readily biodegradable

Bio accumulative potential: Low

Bioconcentration factor: Low.

Flumetsulam:

Availability of flumetsulam in soil is principally dependent upon soil pH and organic matter. Herbicidal activity increases as pH increases and organic matter decreases. DT50 in 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.

Biodegradation: No data available

Bio accumulative potential: Low

Bioconcentration factor: No data available

Other adverse effects:

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

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

Packing group: III

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

Maritime transport IMDG/IMO

Environmental hazards: Marine pollutant: Yes

Class: 9

Packing group: III

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

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

15) Regulatory Information:

Symbols: Xn – Harmful
Xi- Irritant
N - Dangerous for the environment

Risk – Phrase(s):

- R50/53 – Very toxic to aquatic organisms, may cause long-term adverse effect in the aquatic environment.
– Irritating to eyes.
R36 – Harmful to aquatic organisms, may cause long-term adverse effect in the aquatic environment.
R52 / 53 – Very toxic to aquatic organisms, may cause long-term adverse effect in the aquatic environment.

Safety – Phrase(s):

- S2 – Keep out of reach of children.
S13 – Keep away from food, drink and animal feeding stuffs.
S20/21 – When using, do not eat, drink or smoke.
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.

Full text of H-statements referred to under section 2 and 3

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.

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