

Safety Data Sheet

FUSION - Reg. No: L10133 (Act No 36 of 1947)

Date of issue: 08/09/2016

1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER.	
Product name:	FUSION
Other means of identification Recommended use:	Cymoxanil/Famoxadone 500 WDG Fungicide
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:	Cymoxanil: 2-cyano-N-[(ethylamino)carbonyl]- 2(methoxyimino)acetamide Famoxadone: 3-anilino-5-methyl-5-(4phenoxyphenyl)-1,3- oxazolidine-2,4-dione
2) Classification of the substance / mixture:	
Classification of the product is based on the coformulants listed in section 3.	Xn, N, R22, R43, R48, R50-53 Full text of R-phrases: see section 15.
Label elements:	Hazard symbols: Xn – Harmful  N – Dangerous for the environment Signal Word: Warning
Health effects: eyes:	May cause minor irritation.
Health effects: skin:	May cause minor irritation. Not a skin sensitizer

Health effects: ingestion	Harmful if swallowed. Danger of serious damage to health with repeated exposure.
Health effects: inhalation	May cause irritation.
Health effects: reproduction	Suspected of damaging the unborn child.

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
Cymoxanil	25%	57966-95-7	261-043-0	Acute Tox. 4 (H302) Skin Sens.1 (H317) Repr. 2 (H361fd) STOT RE 2 (H373) Aquatic Acute (H400) Aquatic Chronic 1 (H410)	Xn, N, R22, R43, R50-53; S2, S36/37, S60, S61
Famoxadone	25%	131807-57-3	612-206-00-3	STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Xn, N, R22 R48, R50-53; S2, S46, S60, S61
Other inerts	50%	-	-	Not classified	Not classified

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

4) First Aid Measures:

<p>Eye contact:</p> <p>Skin contact:</p> <p>Ingestion:</p> <p>Inhalation:</p> <p>Indication of immediate medical attention and special treatment needed: Advice to physician</p>	<p>Immediately flush eyes with plenty of water. Remove contact lenses, if worn, and flush eyes with water for at least 15 minutes, holding eyelids open. Seek medical assistance.</p> <p>Remove contaminated clothing and shoes immediately. Immediately wash skin with soap and plenty of water. Seek medical attention in case of skin irritation or allergic reaction. Wash contaminated clothing before re-use.</p> <p>If swallowed, do not induce vomiting: seek medical advice immediately and show this document. Never give anything by mouth to an unconscious person. If victim is alert, rinse mouth thoroughly with water and give victim large volumes of water to drink. Keep victim calm.</p> <p>Remove victim to well ventilated area and loosen clothing around the neck. Keep victim calm and warm. Qualified personnel should administer oxygen or artificial respiration if necessary. Seek medical attention if irritation persists.</p> <p>Symptomatic treatment, no specific antidote known.</p>
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5) Fire-Fighting Measures:

<p>Suitable extinguishing media:</p> <p>Fire fighting:</p> <p>Protective clothing:</p>	<p>Water spray, foam, carbon dioxide (CO₂), dry powder.</p> <p>Remove spectators from surrounding area. Use a recommended extinguishing agent. Fight fire from a maximum distance and use an unmanned hose holder or monitor nozzles. Dike extinguishing media for later disposal, do not allow to reach sewage or water systems. Dispose of fire debris and contaminated extinguishing water according to regulations. Water can be used to cool unaffected containers but must be contained for later disposal. Avoid pollution of groundwater and waterways. In the case of small fires, allow the fire to burn itself out as use of water may increase the area of contamination</p> <p>Fire may produce irritating or poisonous vapours such as carbon dioxide or nitrogen oxides.</p> <p>Fire-fighters and others that may be exposed should wear self-contained breathing apparatus.</p>
<p>6) Accidental Release Measures:</p>	
<p>Personal precautions:</p> <p>Environmental precautions:</p> <p>Cleaning procedure:</p> <p>Disposal:</p>	<p>Remove personnel and control access. Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Wear personal protective clothing according to operator safety during removal of spillage. Ensure good ventilation.</p> <p>If considered safe to do so, prevent further spillage. Do not contaminate waterways, drains, sewer systems and groundwater. Notify government occupational health, safety and environmental authorities if product should enter water sources. Considered a marine pollutant.</p> <p>Clear area of unprotected personnel. Wear protective gear as mentioned in section 8 below. Contain the spill and stop leak provided it is safe to do so. Avoid dust formation. Collect by wet brushing or using an electrically protected, industrial vacuum cleaner. Collect waste in a suitable container which can be labelled and sealed for disposal according to local regulations. Clean contaminated areas thoroughly with water containing detergent. Collect washings to avoid any contamination of surface and ground water, water supplies and drains.</p> <p>Dispose of in accordance with local regulations. Never return spilled product to original container for re-use.</p>
<p>7) Handling & Storage:</p>	
<p>Handling:</p>	<p>Ensure thorough ventilation of work and storage areas. Avoid contact with skin, eyes and clothes. Do not breathe in dust or spray. Wear suitable personal protective equipment as described in section 8. Do not eat, drink, smoke or apply cosmetics while using. Wash hands thoroughly with soap and water after handling, and before eating, tobacco use, drinking, or using the toilet. Sources of heat or ignition should be kept a safe distance away. Dust may form an explosive mixture in air. Do not apply directly to areas where surface water is present. Water used to clean equipment must be disposed of correctly to avoid contamination.</p>

<p>Storage:</p>	<p>Store in the original, clearly labelled container. Keep tightly closed in a dry, well-ventilated place away from foodstuffs, fertilisers and seeds. Store in a restricted area, away from animals, children or uninformed persons. Do not contaminate water, food or feed by storage or disposal.</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>Employee must wear appropriate protective (impervious) clothing related to the activity performed e.g. mixing, preparing concentrate, or spraying. Wear full protective clothing and rubber or plastic boots.</p> <p>Employee must wear appropriate chemical-resistant gloves to prevent contact with the substance. The use of nitrile gloves is recommended.</p> <p>The use of safety goggles with side-shields is recommended.</p> <p>Wear suitable respiratory equipment to protect from dust and spray mist.</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: pH:</p> <p>Flash point:</p> <p>Flammability (solid, gas)</p> <p>Upper/ lower flammability or explosive limits:</p> <p>Auto-ignition temperature:</p> <p>Solubility(ies):</p> <p>Bulk density:</p>	<p>Solid, dispersible granule</p> <p>Brown granules</p> <p>Characteristic</p> <p>No data available</p> <p>4 – 5.5</p> <p>Not applicable</p> <p>Not flammable</p> <p>Not explosive</p> <p>No data available</p> <p>Disperses in water</p> <p>No data available</p>
<p>10) Stability & Reactivity:</p>	
<p>Reactivity:</p> <p>Chemical stability:</p> <p>Hazardous decomposition product(s):</p> <p>Conditions to avoid:</p>	<p>Stable under normal storage conditions.</p> <p>When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.</p> <p>Fires can release carbon dioxides and nitrogen.</p>

Incompatible materials:	Protect from direct sunlight or heat to avoid thermal decomposition. Severe dusting conditions may lead to the formation of explosive mixtures in air. None known.
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11) Toxicological Information:

Acute:

- Oral LD50 > 1 600 mg/kg, rat.
- Dermal LD50 > 3 800 mg/kg, rat.
- Inhalation LC50 4h > 5.06 mg/L, rat (Cymoxanil)
> 5.3 mg/L, rat (Famoxadone)
- Skin irritation : Slight irritant, rabbit (Cymoxanil).
: Minor irritation, rabbit (Famoxadone).
- Eye irritation : Not an irritant, rabbit (Cymoxanil).
: Minor irritation, rabbit (Famoxadone).
- Skin sensitizer : Not a skin sensitizer, guinea pig.

Cymoxanil may cause harm to an unborn child.

Famoxadone is not a reproductive or developmental toxin, nor an oncogen and does not pose a genotoxic hazard.

12) Ecological Information:

Based on Active Ingredients:

- Bees : Practically non-toxic (Cymoxanil).
LD50 for honeybees > 25 µg/bee, LD50 (48h) > 1 000 ppm (Famoxadone).
- Birds : Acute oral LD50 > 2 250 mg/kg bobwhite quail and mallard ducks (Cymoxanil).
: Acute oral LD50 > 2 250 mg/kg bobwhite quail, dietary LC50 (5d) > 5 260 mg/kg bobwhite quail and mallard ducks (Famoxadone).
- Fish : LC50 (96h) rainbow trout 61 mg/L, bluegill sunfish 29 mg/L, common carp 91mg/L, sheepshead minnows >47.5 mg/L (Cymoxanil).
: LC50 (96h) rainbow trout 0.011 mg/L, sheepshead minnows 0.049 mg/L, carp 0.17 mg/L (Famoxadone). Daphnia : LC50 (48h) 27 mg/L (Cymoxanil).
: EC50 (48h) 0.012 mg/L (Famoxadone).
- Algae : EC50 (5d) *Selenastrum capricornutum* 1.21 mg/L, EC50 for *Anabena flos-aquae* 231ppb (Cymoxanil).
: EC50 (72h) *Scenedesmus capricornutum* 0.022 mg/L (Famoxadone).
- Worms : LC50 (14d) 2 208 mg/kg soil (Cymoxanil).
: LC50 (14d) earthworms 470 mg/kg soil (Famoxadone).

Persistence, degradability and motility:

Cymoxanil: In lab. soils, DT50 0.75–1.6 d (5 soils, pH range 5.7–7.8, o.m. 0.8–3.5%). In the field, DT50 (bare soil) 0.9–9 d. In aquatic studies, DT50 <1 d. K_{oc} 38–237. Cymoxanil is mobile, adsorption Freundlich K 0.29– 2.86 in four soil types.
Famoxadone: In laboratory soil, DT50 6 d (aerobic, 20 °C, 40–50% MWHC, pH (5.3–8.0, 1.1–2.9% o.m.), 28 d (anaerobic, 20 °C, pH 7.2, 1.4% o.m.). Degradation routes include hydroxylation (at the 4'-phenoxyphenyl position) and ring opening (with formation of a glycolic acid derivative), and is primarily microbial; it is accelerated by light (K. M. Jernberg *et al.*, *ibid.*, 6A-009). Mean K_{oc} 3632 (4 soils); mean K_d 70 (4 soils)

Biodegradation: Not available.

Bioaccumulative potential: Not available.

13) Disposal Considerations:

Waste Disposal: Waste or spillage should not be re-used. Do not contaminate water sources, food or feed by disposal. Wastes resulting from the use of this product should be disposed of by according to local regulations and preferably by an approved chemical waste disposal/incineration facility. Do not dispose of undiluted chemical on site.

Container Disposal: Refer to the product label for instructions. Containers must be emptied completely before disposal. Shake the container into the spray tank until the container is empty. Destroy empty containers by perforating and flattening before disposal according to local regulations, preferably by an approved chemical waste disposal/incineration facility or landfill. Do not contaminate water sources, food or feed by disposal.

DO NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE.

14) Transportation Information:

UN Number: 3077

Road transport ADR/RID

Class: 9

Packing group: III

Hazard label: 9

UN proper shipping name: PESTICIDES, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Cymoxanil, Famoxadone)

Maritime transport IMDG/IMO

Class: 9

Packing group: III

Hazard label: 9

UN proper shipping name: PESTICIDES, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Cymoxanil, Famoxadone)

Marine pollutant

Air transport IATA/ICAO

Class: 9

Packing group: III

Hazard label: 9

UN proper shipping name: PESTICIDES, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Cymoxanil, Famoxadone)



15) Regulatory Information:

Symbols: Xn, N

Risk – Phrase:

R22: Harmful if swallowed.

R43: May cause sensitization by skin contact.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R48/22: Harmful: danger of serious damage to health by prolonged exposure if swallowed.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety – Phrase:

S2: Keep out of the reach of children.

S36/37: Wear suitable protective clothing and gloves.

S60: This container and its contents must be disposed of as hazardous waste.

S61: Avoid release to the environment. Refer to special instructions/Safety datasheets

S2: Keep out of the reach of children.

S46: If swallowed, seek medical advice immediately and show this container or label.

S60: This container and its contents must be disposed of as hazardous waste.

S61: Avoid release to the environment. Refer to special instructions/Safety datasheets

Hazard Statements

H302: Harmful if swallowed.

H317: May cause an allergic skin reaction

H361fd: Suspected of damaging the unborn child.

H373: May cause damage to organs through prolonged or repeated damage.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H373: May cause damage to organs through prolonged or repeated damage.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Date of revision: xxxx

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.

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