

Safety Data Sheet

BISHOP- Reg. No: L 9873 (Act No 36 of 1947)

Date of issue: 23/06/2014

Date revised :26/06/2019

1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER.	
Product name:	BISHOP
Other means of identification:	Isoxaflutole (Isoxazole) 500 g/L SC
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:	5-cyclopropyl-1,2-oxazol-4-yl α,α -trifluoro-2-mesyl-p-tolyl ketone; 5-cyclopropyl-4-[2-methylsulfonyl-4-(trifluoromethyl)benzoyl]isoxazole
2) Classification of the substance / mixture:	
Classification of the product:	Rep tox.Cat. 2, H361d Acute aquatic toxicity . Cat. 1, H400 Chronic aquatic toxicity .Cat. 1, H410 Xn,N Full text of R-phrases; see section 15.
Label elements:	<p>Hazard statements: Harmful if swallowed H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H 361d- Possible of risk of harm to the unborn child H412 Harmful to aquatic life with long lasting effects</p> <p>Precautionary statements: P410: Keep out of reach of children P501: Dispose of contents/ Container to an approved waste disposal plant.</p> <p>Pictogram</p>  <p>Signal Word: Warning</p>

Health effects: eyes:	May cause moderate irritation.
Health effects: skin:	May cause mild irritation..
Health effects: ingestion	May cause mild irritation.
Health effects: inhalation	May cause mild irritation
Health effects: Other	Possible of risk of harm to 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
Isoxaflutole	50%	141112-29-0	604-222-4	Reproductive toxicity.Cat. 2, H361d Acute aquatic toxicity . Cat. 1, H400 Chronic aquatic toxicity .Cat. 1, H410	Xn –R22 N – R51/53

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:	Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting unless told to so by poison control centre or doctor. A glass of water may be given to sip. For advice, contact the National Poisons Centre. Seek medical assistance immediately.
Inhalation:	Remove patient to fresh air. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance.
Most important symptoms and effects, acute and delayed:	
Indication of immediate medical attention and special treatment needed: Advice to physician	No specific antidote. Supportive care. Treatment based on judgement of physician in response to symptoms of patient

5) Fire-Fighting Measures:

Suitable extinguishing media:	Fine water spray, foam, carbon dioxide.
Unsuitable extinguishing media:	
Special hazards arising from the substance or mixture:	During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds
Fire-fighting:	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

<p>Protective clothing:</p>	<p>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>Generating poisonous and corrosive fumes containing: carbon monoxide, nitrogen oxides and sulfur.</p> <p>UNUSUAL FIRE OR EXPLOSION HAZARDS: Generating poisonous and corrosive fumes.</p> <p>Full protective clothing and 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>Wear appropriate safety clothing and eye/face protection. Do not breathe in spray or fumes.</p> <p>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 NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE.</p> <p>Do not transport if this container is damaged or leaking.</p>
<p>7) Handling & Storage:</p>	
<p>Handling:</p>	<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.</p> <p>BEWARE: Spray drift hazard. Apply this product carefully.</p>

<p>Storage:</p>	<p>Spray drift may cause serious damage to other desirable plants.</p> <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.</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 and equipment to prevent repeated or prolonged skin contact with this substance.</p> <p>Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance</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>Flammability (solid, gas)</p> <p>Upper/ lower flammability or explosive limits:</p> <p>Vapour pressure:</p> <p>Vapour density:</p> <p>Relative density:</p> <p>Solubility(ies)</p> <p>Partition coefficient: n-octanol/water</p> <p>Auto-ignition temperature:</p> <p>Viscosity:</p>	<p>Liquid</p> <p>Off- white to pale yellow</p> <p>Characteristic</p> <p>No data available</p> <p>7.80</p> <p>140 °C</p> <p>No data available</p> <p>Not flammable</p> <p>N/A</p> <p>No flammable</p> <p>No flammable</p> <p>Negligible at normal ambient temperature</p> <p>No data available</p> <p>No data available</p> <p>N/A</p> <p>No data available</p> <p>No data available</p> <p>No data available</p>
<p>10) Stability & Reactivity:</p>	
<p>Reactivity:</p>	<p>Not available.</p>

Chemical stability:	Stable under normal conditions. When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Do not allow product to freeze. Incompatibilities with acids exist.
Hazardous decomposition product(s):	Carbon oxides, nitrogen compounds.
Conditions to avoid:	None known – Store out of direct sunlight and keep away from sources of heat..
Incompatible materials:	Incompatibilities with acids exist

11) Toxicological Information:

Acute:

Oral LD50 : > 5 000 mg/kg, rat.

Dermal LD50 : > 5 000 mg/kg, rabbit

Inhalation LC50 (4h): > 5 mg/l, rabbit.

Skin irritation : Not irritant, rabbit

Eye irritation : Slight irritating, rabbits..

Sensitisation : Does not cause sensitization on laboratory animals and guinea pigs.

Other :

12) Ecological Information:

Information below based on active ingredient:

Bees: Not toxic to bees; LD50 (oral) > 100 µg/bee.

Birds: LD50 (oral) Quail and Mallard ducks >2000 mg/kg. Dietary LC50 (8d) >5000 mg/kg diet.

Fish : LC50 (96h) Rainbow trout > 1,7 ppm, Bluegill sunfish 4,5 ppm. Daphnia : LC50 (48h) >1,5 ppm.

Algae : EC50 (120h) Selenastrum capricornutum 0,0016 mg/L.

Worms: EC50 (14d) > 1 000 mg/kg soil

Other aquatic species:

Environmental fate:

Persistence and Degradability:

Mean field DT50 in soil is 1.3 days and after 4 months, virtually no residues remain in the soil. $K_{ow} \log P = 2.34$

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

Labelling no: 9

Shipping name: environmentally hazardous substance, liquid N.O.S. (Isoxaflutole) maritime transport (imdg/imo):

Maritime Transport IMDG / IMO:

Class: 9

Packaging group: III

Shipping name: environmentally hazardous substance, liquid N.O.S. (Isoxaflutole)

Air transport (ICAO/IATA):

Class: 9

Packaging group: III

Shipping name: Environmentally hazardous substance, Liquid N.O.S. (Isoxaflutole)

15) Regulatory Information:

Contains : Isoxaflutole

Symbols: Xn – Harmful

N – Dangerous for the environment

Risk – Phrase (s):

R22 – Harmful if swallowed.

R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R63 – Possible of risk of harm to the unborn child

Safety – Phrase (s):

S13 - Keep away from food, drink, and animal feedstuffs

S23 - Do not breath vapour or spray

S35 - This material and its container must be disposed of in a safe way.

S36/37 - Wear suitable protective clothing and gloves.

S57 – Use appropriate containment to avoid environmental contamination.

Hazard Statements (s)

H302 - Harmful if swallowed

H 361d - Possible of risk of harm to the unborn child

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H412 - Harmful to aquatic life with long lasting effects

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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