


Safety Data Sheet

OPTAN 50 SC L7878 (Act No 36 of 1947)

1) PRODUCT AND COMPANY IDENTIFICATION	
Product name:	Optan 50 SC
Other means of identification:	Hexaconazole 50 g/L SC
Chemical Name:	(±)-α-butyl-α-(2,4-dichlorophenyl)-1H-1,2,4-triazole-1ethanol
Recommended use:	Fungicide
Restrictions on use:	Agriculture
UN No:	NA
Distributed by:	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 011 8223494 MOBILE: 0834006056 www.agritech.co.za
Emergency Number:	POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 TYGERBERG: 021 931 6129 RED CROSS 021 689 5227 GRIFFON POISON CENTRE: 082 446 8946.
2) HAZARDS IDENTIFICATION	
Classification of the substance/mixture:	Acute Toxicity (Oral) Category 4 Acute Toxicity (Dermal) Category 4 Acute Toxicity (Inhalation) Category 3 Skin Sensitization Category 1
Label Elements: Globally Harmonized System, EU (GHS):	<p>Pictograms:</p>  <p>Signal word: Warning</p> <p>Hazard Statements: H302: Harmful if swallowed. H317: May cause an allergic skin reaction. H411: Toxic aquatic life with long-lasting effects.</p> <p>Precautionary Statements: P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P262: Do not get in eyes, on skin, or on clothing. P270: Do not eat, drink or smoke when using the product. P272: Contaminated work clothing should not be allowed out of the workplace. P273: Avoid release to the environment. P280: Wear protective gloves, protective clothing, eye protection. P321: Specific treatment (See First aid measures on this label) P362+P364: Take off contaminated clothing and wash it before reuse.</p>

According to Directive 67/548/EEC No. 1272/2008 [CLP]	<p>P405: Store locked up.</p> <p>Hazard Symbol(s): Xi - Irritant</p> <p>R-phrases(s): R22: Harmful if swallowed. R43: May cause sensitization by skin contact. R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p> <p>S-phrases(s): S2: Keep out of reach of children. S3/7: Keep container tightly closed in a cool place. S13: Keep away from food, drink and animal feeding stuffs. S20/21: When using, do not eat drink or smoke. S24/25: Avoid contact with skin and eyes. S27: Take off immediately all contaminated clothing. 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. S46: If swallowed, seek medical advice immediately and show this container or label.</p>			
3) COMPOSITION / INFORMATION ON INGREDIENTS				
3.1 Substances: Not applicable				
3.2 Mixtures:				
Chemical name	Concentration	CAS No.	EC No.	Classification according to Regulation EC 1272/2008 (CLP)
Hexaconazole	5%	79983-71-4	413-050-7	Acute Tox 4 (H302) Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)
4) FIRST AID MEASURES				
Description of First-Aid Measures:				
Inhalation:			Remove patient to fresh air. Loosen clothing around neck. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Over-exposure by inhalation is improbable. Check for other causes of observed symptoms and seek medical advice.	
Skin contact:			Any skin contaminated with the concentrate must be thoroughly washed with soap and water. Remove contaminated clothing and launder before re-use. If irritation persists, seek medical advice.	
Eye contact:			Flush eyes with plenty of water for at least 15 minutes holding eyelids open. Remove contact lenses. Seek medical assistance if irritation develops or persists..	
Ingestion:			Never give anything by mouth to an unconscious person. Do not induce vomiting. For advice, contact the National Poisons Centre. Seek immediate medical attention. Rinse mouth thoroughly with water. If vomiting occurs, give more water to drink to assist dilution.	
Most important symptoms and effects, both acute and delayed:			None known.	
Indication of any immediate medical attention and special treatment needed:			Treat symptomatically.	
5) FIRE-FIGHTING MEASURES				
Extinguishing Media:			Water fog, foam, carbon dioxide or dry chemical.	
Unsuitable Extinguishing Media:			Do not use high volume water jet, due to contamination risk.	

Specific Hazards arising from the substance/mixture:	If involved in a fire, the dehydrated components may emit oxides of carbon and oxides of nitrogen, possibly hydrogen chloride.								
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 holder or monitor nozzles. 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.								
Protective clothing:	Full protective clothing and self-contained breathing apparatus.								
6) ACCIDENTAL RELEASE MEASURES									
Personal precautions, protective equipment and emergency procedures:	Avoid contact with skin and eyes. For personal protection see Section 8.								
Environmental precautions:	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.								
Methods and material for containment and cleaning up:	Do not eat, drink or smoke during the clean-up process. Clear area of unprotected personnel. Prevent product from spreading and collect into specially marked, tightly closing containers. Treat contaminated areas with water containing soda or detergent. Dike spill area and collect washings to avoid any contamination of surface and ground water, water supplies and drains. Heavily contaminated soil layers should be removed and disposed of in an approved way. Rinse the spill area and any tools or implements several times with soapy water. Contain and adsorb the rinsate with inert absorbents and place into the same disposal container as the spill material. Notify regulatory authorities if necessary. Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect in sealed open top containers for disposal.								
7) HANDLING & STORAGE									
Precautions for Safe Handling:	Wash hands thoroughly with soap and water before breaks and immediately after handling the product. Do not eat, drink, smoke or apply cosmetics when there is a possibility of exposure to the product. Wash goggles or face shield and contaminated clothing thoroughly after each day's use. Wash gloves after each day's use. Wash hands after use.								
Conditions for Safe Storage, including any incompatibilities:	Store in the closed, original container in a dry, well ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.								
8) EXPOSURE CONTROL / PERSONAL PROTECTION									
Appropriate Engineering Controls:	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.								
Control Parameters: Occupational exposure limits:	<table><tr><td>Ingredient</td><td>CAS#</td><td>Limit</td><td>Basis</td></tr><tr><td>Hexaconazole</td><td>79983-71-4</td><td>10 mg/m³</td><td>TWA 8hr</td></tr></table>	Ingredient	CAS#	Limit	Basis	Hexaconazole	79983-71-4	10 mg/m ³	TWA 8hr
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Hexaconazole	79983-71-4	10 mg/m ³	TWA 8hr						
<u>PERSONAL PROTECTIVE EQUIPMENT:</u>	Consult supplier to confirm that the equipment is suitable.								
Clothing:	Suitable, impervious overalls								
Respiratory protection:	Not normally required. If inhalation is likely, an approved respirator should be worn. Generally natural ventilation is adequate.								

Gloves:	PVC, neoprene or natural rubber gloves.
Eye protection:	Safety goggles if exposure is possible.
Emergency eye wash:	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.
9) PHYSICAL & CHEMICAL PROPERTIES	
Form:	Liquid
Colour:	White
Odour:	Characteristic
Solubility:	Suspends in water
pH:	6.7
Odour threshold:	No data available
Melting point / Freezing point	110 – 112°C
Initial boiling point and boiling range	No data available
Flash point:	Does not flash
Evaporation rate:	No data available
Flammability (solid, gas)	No data available
Upper/ lower flammability or explosive limits:	No data available
Vapour pressure:	0.018 mPa (20°C)
Vapour density:	No data available
Relative density:	1.29 g/cm ³
Partition coefficient: n-octanol/water	3.9
Auto-ignition temperature:	No data available
Decomposition Temperature:	No data available
Viscosity:	No data available
10) STABILITY & REACTIVITY	
Reactivity:	No hazardous reactions if stored and handled as indicated.
Chemical Stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.
Possibility of hazardous reactions:	None known.
Conditions to avoid:	Protect from heat sources.
Incompatible materials:	No data available.
Hazardous decomposition product(s):	Heating can release vapours which can be ignited.
11) TOXICOLOGICAL INFORMATION	
Acute Toxicity:	
Oral:	LD ₅₀ >5000 mg/kg, rat.
Dermal:	LD ₅₀ >2000 mg/kg, rat.
Inhalation:	LC50 (4h) >5.9 mg/L.
Skin Corrosion/Irritation:	Non-irritating to rabbit skin.
Serious Eye Damage/Irritation:	Mild irritant.
Respiratory or Skin Sensitization:	May cause sensitization by skin contact.
Germ Cell Mutagenicity:	Non-mutagenic.
Carcinogenicity:	No data available.
Reproductive Toxicity:	No data available.
STOT-SE:	No data available.
STOT-RE:	No data available.
Aspiration Hazard:	No data available.
12) ECOLOGICAL INFORMATION	
Ecotoxicity:	
Birds:	LD50 for mallard duck is >4000 mg/kg.
Fish:	LC50 (96 hr) for rainbow trout is 3.4 mg/l, mirror carp is 5.94 mg/l, sheepshead minnow is 5.4 mg/l.
Daphnia:	LC50 (48 hr) for hexaconazole is 2.9 mg/l.
Algae:	E ₅ C50 (72 hr) 1.7 mg/l.
Worms:	LC50 (14 d) >1000 mg/kg dry soil.
Bees:	LD50 (24 hr) for honeybees >0.1 mg/bee (oral and contact).
Persistence and Degradability:	Rapidly degraded in soils in laboratory tests.

Bio-accumulative Potential:	No significant retention in organs or tissues.
Mobility in Soil:	No information available.
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 at an approved chemicals waste disposal facility.
Container Disposal:	Triple or pressure rinse containers before disposal. Do not dispose of undiluted chemical on-site. If recycling, close container and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation or tree roots. Empty containers and product should not be burnt. Dispose of waste product at a reputable waste disposal contractor.
14) TRANSPORTATION INFORMATION	
Road Transport ADR / IRD:	UN NUMBER: Not allocated Considered not dangerous for transport.
Maritime Transport IMDG / IMO:	UN NUMBER: Not allocated Considered not dangerous for transport.
Air Transport ICAO / IATA:	UN NUMBER: Not allocated Considered not dangerous for transport.
Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	No transport in bulk according to the IBC Code.
15) REGULATORY INFORMATION	
Safety, health and environmental regulations/legislation specific for the substance/mixture:	For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)
Chemical Safety Assessment:	Advice on product handling can be found in sections 7 and 8 of this safety data sheet.
16) OTHER INFORMATION	
<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Date of issue: 26/07/2005 Date of revision: 28/06/2016, 15/01/2021</p> <p>Abbreviations and acronyms:</p> <ol style="list-style-type: none"> 1. CAS number: Chemical Abstracts Service number. 2. CLP: Classification, Labelling, Packaging. 3. LD₅₀: Lethal Dose for 50% of the test population. 4. LC₅₀: Lethal Concentration for 50% of the test population. 5. DT₅₀: Half-life. 6. GHS: Globally Harmonised System (of Classification and Labelling of Chemicals). 7. STOT: Specific Target Organ Toxicity 8. SE: Single exposure 9. RE: Repeated exposure 10. TWA: Time-weighted average. <p>Literature References:</p>	

- GHS: www.ccohs.ca/oshanswers/chemicals/ghs.html
- ECHA: <https://echa.europa.eu/search-chemicals>