


Safety Data Sheet

VALIDUS 200 EW - Reg. No: L 8481 (Act No 36 of 1947)

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1) PRODUCT AND COMPANY IDENTIFICATION	
Product name:	VALIDUS 200 EW
Other means of identification:	Myclobutanil 200 g/L EW
Recommended use:	Fungicide
Restrictions on use:	Agriculture
UN No:	UN 3082
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 TYGERBERG:021 931 6129 RED CROSS: 021 689 5227 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082446 8946.
Chemical name:	(RS)-2-(4-chlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)hexanenitrile (IUPAC)
2) Hazards Identification:	
Classification of the product is based on the coformulants listed in section 3	N; Xn; Xi; R10; R20/22; R36; R51/53; R63; R65 Full text of R-phrases; see section 15
Label elements:	Hazard symbols: N – Dangerous for the environment Xi – Irritant Xn - Harmful  Signal word: Irritant
Health effects: Eyes:	Severe irritant
Health effects: Skin:	Mild irritant
Health effects: Ingestion:	Harmful. May be fatal if it enters airways.
Health effects: Inhalation:	Harmful

Health effects: Other:		Possible risk of harm to unborn child.				
3) Composition Details:						
Chemical name	Composition (g/L)	CAS No.	EC No.	CLP Classification	DSD Classification	
Myclobutanil	200	88671-89-0		Acute Tox. 4, H302 Eye Irrit. 2, H319 Repr. 2, H361d Aquatic Chronic 2, H411	Repr. Cat. 3; R63 Xn; R22 Xi; R36 N; R51-53	
Heavy aromatic solvent		64742-94-5	265-198-5	Asp. Tox. 1; H304	Xn; R65	
Cyclohexanone		108-94-1	203-631-1	Flam. Liq. 3, H226 Acute Tox. 4, H332	R10 Xn; R20	
Full text of R- and S-phrases: see section 15.						
4) First Aid Measures:						
Product in eye:			If product or spray enters eyes, wash out immediately and continue rinsing with clean water for at least 15 minutes. Obtain medical attention. Remove contact lenses, if present after the first 5 minutes, and then continue rinsing eyes.			
Product on skin:			Take off contaminated clothing. After contact with skin, wash immediately with water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.			
Product ingested:			Immediately call a poison control centre or doctor. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.			
Product inhaled:			Remove to fresh air. If person is not breathing then give artificial respiration and call for an ambulance, if by mouth to mouth use rescuer protection (pocket mask etc) call a poison information centre or doctor for treatment advice. If breathing is difficult oxygen should be administered by qualified personnel.			
Further medical treatment:			Probable mucosal damage may contraindicate the use of gastric lavage. If lavage is performed, suggest endotracheal and or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.			
5) Fire-Fighting Measures:						
Flash Point			>100°C			
Extinguishing media:			Use the following extinguishing media when fighting fires involving this material: carbon dioxide, dry chemical or water spray			
Unsuitable extinguishing media:			Water jet, due to contamination risk.			
Fire and explosion Hazards			Pesticide particulates can become airborne. Combustion generates toxic fumes of the following: hydrogen chloride and/or hydrogen cyanide.			
Fire Fighting Equipment			Use positive-pressure, self-contained breathing apparatus and full protective equipment.			
Special Procedures			Use water spray to cool containers exposed to fire. Contain run-off. Remain upwind. Avoid breathing smoke.			
Protective clothing:			Self-contained breathing apparatus and full protective clothing.			

6) Accidental Release Measures:	
Personal precautions:	Wear appropriate protective clothing. Do not touch or walk through spilled material. Wear a face shield or goggles, overalls buttoned to neck and wrist, chemical resistant gloves and boots. Stop leak when safe to do so. Dike area and prevent entry into waterways and drains.
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.
Cleaning procedure:	Absorb spills with inert material and place in waste containers. Materials such as sand, soil or sawdust can be used. Spill residues may be cleaned using water and detergent. Contain and absorb water for disposal.
Disposal:	Dispose of waste safely, according to local Council regulations
7) Handling & Storage:	
Handling Usage/Handling Precautions:	This material may be harmful if swallowed, inhaled or absorbed through the skin. May cause reproductive/ developmental damage and/or organ damage from repeated oral exposure at high doses. May cause internal organ damage from repeated oral exposure at high doses. Do not eat, drink or smoke while using product. Remove protective clothing immediately after handling this product and wash hands and skin before meals and after work. May cause skin and eye irritation. Avoid contact with eyes and skin. Keep out of reach of children. Clean up spilled material immediately, and wash clothes, equipment and work area after use.
Storage:	Store in original container tightly closed and in a locked dry, cool, well ventilated area away from foodstuffs. When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Contact your supplier for further information about the use of the product that is older than this.
8) Exposure Control / Personal Protection:	
Eye protection:	Use chemical goggles or a full-face respirator.
Engineering controls:	Provide general and/or local exhaust ventilation to control airborne levels
Clothing:	Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.
Gloves:	Use chemical resistant gloves.
Respiratory Protection	Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an air purifying respirator
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:	Off-white
Odour:	Aromatic solvent odour
Melting point/boiling point:	±100 °C – similar to water
Density:	1.02 g/cm ³
Surface tension:	N/A
pH:	8-9

Flash point:	± 100 °C
Evaporation rate:	No data available
Flammability:	Flammable liquid
Ignition Temperature:	> 400 °C
Explosive Limits:	N/A
Vapour pressure:	No data available
Vapour density:	No data available
Partition coefficient: n-octanol/water	No data available
Solubility in water	Dispersible
Viscosity:	No data available
10) Stability & Reactivity:	
Stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.
Conditions to avoid:	Temperature extremes and open flame.
Materials to avoid:	Strong oxidising agents and acids.
Hazardous decomposition products:	Hydrogen chloride, hydrogen cyanide, oxides of nitrogen, carbon monoxide.
11) Toxicological Information:	
Acute and chronic health hazards	
Acute oral toxicity:	> 5 000 mg/kg
Acute inhalation toxicity:	Safe under normal conditions of use and storage
Acute dermal toxicity:	> 5 000 mg/kg
Skin irritation:	Not an irritant
Eye irritation:	May cause mild eye irritation with corneal injury
Sensitisation:	Not a sensitizer
Ingestion	Low toxicity if swallowed
12) Ecological Information (Based on the active ingredient):	
Acute bird toxicity:	Acute oral LD50 for bobwhite quail 510 mg/kg. Dietary LC50 (8 d) for bobwhite quail and mallard ducks >5000 mg/kg.
Acute fish toxicity:	LC50 (96 h) for bluegill sunfish 4.4 mg/L and rainbow trout 2.0 mg/L.
Toxicity for daphnia:	LC50 (48 h) 17 mg/L.
Toxicity to algae:	EC50 (96 h) for <i>Scenedesmus subspicatus</i> 0.91 mg/L.
Toxicity to bees:	LD50 (oral) >33.9 µg//bee and LD50 (contact) >39.6 µg//bee.
Toxicity to worms:	Acute LC50 for <i>Eisenia foetida</i> 99 mg/kg.
Toxicity to other beneficial species:	Harmless in Tier 1 laboratory studies on <i>Aphidius rhopalosiphi</i> , <i>Pardosa sp.</i> and <i>Coccinella septempunctata</i> .
13) Disposal Considerations:	
DISPOSAL CONSIDERATIONS	
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.
Empty container precautions:	Refer to the product label for instructions. Container Refilling and Disposal: If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE , perforate and flatten. Do not transport if this container is damaged or leaking.

14) Transportation Information:

Rail/road	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Myclobutanil) Class 9 Packing group III UN: 3082
Sea	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Myclobutanil) Class 9 Packing group III UN: 3082 Marine pollutant
Air	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Myclobutanil) Class 9 Packing group III UN: 3082

15) Regulatory Information:

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

Risk phrases:

R10 Flammable.

R20/22 Harmful by inhalation and if swallowed **R36** Irritating to eyes.

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

R63: Possible risk of harm to the unborn child.

R65: Harmful: may cause lung damage if swallowed.

Safety phrases:

S2: Keep out of the reach of children.

S13: Keep away from food, drink and animal feeding stuffs.

S20/21: When using do not eat, drink or smoke.

S23: Do not breathe fumes or vapour.

S24/25: Avoid contact with skin and eyes.

S36/37: Wear suitable protective clothing and gloves.

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

S57: Use appropriate container to avoid environmental contamination.

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.

S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Hazard Statements:

H226: Flammable liquid and vapour.

H302: Harmful if swallowed.

H304: May be fatal if swallowed and enters airways.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H361d: Suspected of damaging the unborn child.

H411: Toxic to aquatic life with long-lasting effects.

16) Other Information:

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS 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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