

Safety Data Sheet

BerryMAX L 7754 (Act 36 of 1947)

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1) PRODUCT AND COMPANY IDENTIFICATION	
Product name:	BERRYMAX
Other means of identification:	Forchlorfenuron 10 g/L SL
Recommended Use:	Plant growth regulator
Restrictions on use:	Agriculture
UN No:	1170
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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: 082 446 8946
Chemical Name:	N-(2-chloro-4-pyridinyl)-N'-phenylurea
2) Hazards Identification:	
Product Classification:	N; R40; R51, R53 Full text of phrases; see section 15
Label Elements:	Hazard Symbols: N – Dangerous for the environment 
Health effects: eyes	May cause irritation.
Health effects: skin	May cause irritation, sensitization and allergic reaction.
Health effects: ingestion	Harmful if swallowed.
Health effects: inhalation	Unlikely to cause harmful effects under normal conditions and use.
3) Composition Details:	
COMPOSITION	Forchlorfenuron 10 g / L
	Ethanol 700 g/L

4) First Aid Measures:	
Inhalation:	Unlikely to cause harmful effects under normal conditions and use. Remove patient to fresh air and loosen clothing around the neck. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply provide artificial respiration. Seek medical assistance immediately following significant exposure.
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. Persons providing first aid must wear gloves to avoid selfcontamination. If the patient feels unwell or symptoms of skin irritation appear, seek medical assistance.
Eye contact:	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance if irritation persists.
Ingestion	In case of accidental swallowing, if patient is conscious, rinse mouth, give one or two glasses of water or milk to drink - and do not induce vomiting without medical advice. Get medical attention immediately. Never give anything by mouth to an unconscious person. For advice, contact the National Poisons Centre.
Advice to physician:	Effects on the CNS are possible after inhalation. No specific antidote for this product. If necessary, administer activated charcoal (10 – 20 gram) and sodium sulphate (20 gram). Persons providing first aid must wear gloves to avoid self-contamination. Symptomatic treatment and supportive therapy as indicated.
5) Fire-Fighting Measures:	
Flash point:	25 °C
Extinguishing Media:	Use alcohol-resistant foam, carbon dioxide, dry powder or water. For large fires, use alcohol-resistant foam or water-fog.
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. Water can be used for cooling of unaffected stock, but avoid accumulation of polluted run-off from the site. Contain fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways. If conditions permit, let fire burn itself out, in the case that the area is heavily exposed to fire. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. Remove container from fire area if possible and without risk. Dyke fire control water for later disposal Do not use high volume water jet, due to contamination risk. Generation of poisonous and corrosive fumes: Carbon oxides, nitrous gases and hydrogen chloride. UNUSUAL FIRE OR EXPLOSION HAZARDS: Flammable, keep away from sources of ignition.
Protective clothing:	Full protective clothing and self-contained breathing apparatus.
6) Accidental Release Measures:	
Personal precautions:	Avoid contact with skin and eyes. Do not breathe in spray or fumes. Keep away from sources of ignition. For personal protection see Section 8.

<p>Environmental precautions:</p> <p>Occupational spill:</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 according to operator safety during removal of spillage. 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 absorb the rinsate with inert absorbents and place into the same disposal container as the spill material. Notify regulatory authorities if necessary. 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>7) Handling & Storage:</p>	
<p>Handling:</p> <p>Storage:</p>	<p>Avoid skin and eye contact and inhalation of spray mist. Keep away from sources of ignition. Do not contaminate water, food or feed by storage or disposal. Work must be conducted in a well-ventilated area. Do not eat, drink or smoke whilst using or mixing the product. Wash thoroughly with soap and water after handling.</p> <p>Store in original container tightly closed and in a locked, dry, cool, well-ventilated separate agrochemical storage facility away from foodstuffs, fertilisers and seeds. Store away from direct sunlight. Keep out of reach of children and away from uninformed persons.</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>Occupational Exposure Limits: Not available</p> <p>Engineering Controls: Not available</p> <p><u>PERSONAL PROTECTIVE EQUIPMENT:</u></p> <p>Clothing:</p> <p>Gloves:</p> <p>Eye 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. Wash hands thoroughly with soap and water after handling. Contaminated clothing must be washed before re-use.</p> <p>Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance</p> <p>The use of safety goggles is recommended.</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>Liquid</p>
<p>Colour:</p>	<p>Reddish brown</p>
<p>Odour:</p>	<p>Characteristic</p>

Solubility:	Miscible in water
pH:	7.8
Odour threshold:	Not available
Melting point / Freezing point	165 – 170 (Forchlorfenuron)
Initial boiling point and boiling range	Not available
Flash point:	25°C
Evaporation rate:	Not available
Flammability (solid, gas)	Not available
Upper/ lower flammability or explosive limits:	Not available
Vapour pressure:	4.6 x 10 ⁻⁵ mPa (Forchlorfenuron)
Vapour density:	Not available
Relative density:	Not available
Partition coefficient: n-octanol/water	Log K _{ow} 3.2 (Forchlorfenuron)
Auto-ignition temperature:	Not available
Viscosity:	Not 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:	Avoid heat and sources of ignition. Keep away from direct sunlight
Incompatible materials:	Not available
Hazardous decomposition product(s):	Heating can release vapours which can be ignited.
11) Toxicological Information:	
<p>Inhalation 4 h LD50 : > 10 000ppm, rats; no mortality in saturated atmosphere. Dermal LD50 : > 2000 mg/kg , rabbit. Oral LD50 : > 2500 mg/kg , male rat; > 1500 mg/kg female rat.</p> <p>Skin irritation: Not a skin irritant, rabbit. Eye irritation : Mild irritant, rabbit.</p> <p>Sensitisation : Animal test did not cause sensitization by skin contact, guinea pig.</p> <p>Irritation: May cause irritation by skin contact. Local effects: Irritating to respiratory system. Overexposure to ethanol may cause liver damage and cirrhosis of the liver, central nervous system depression, headache and dizziness. Concentrations substantially above the OEL value may cause narcotic effects.</p>	
12) Ecological Information:	
<p>Birds LD50 : Oral, Bobwhite quail 2200 mg/kg. Dietary LC50 (8d) Bobwhite quail >5500 mg/kg diet. Fish LC50 : (96h) Rainbow trout > 9mg/L, Carp >8 mg/l. Daphnia LC50: (48 h) > 8 mg/L. Algae E_bC₅₀ : (72h) Pseudokirchneriella subcapitata 3.3 mg/L. Bees LD50 : (contact) > 25 µg/bee. Worms LC50 : > 1000 mg/kg, Earthworms.</p> <p>Persistence and degradability: According to the results of tests of biodegradability this product is readily biodegradable. Moderately mobile to essentially immobile in soils, K_{oc} 852–3320 (mean 1763, 4 soils).</p>	
13) Disposal Considerations:	
<p>Waste Disposal : 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 : 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 NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Do not transport if this container is damaged or leaking.</p> <p>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>	
14) Transportation Information:	

UN NUMBER: 1170
Road Transport ADR/ RID:
Class: 9
Packaging group: III
Labelling no: 9
Shipping name:, N.O.S. Ethanol solution

Maritime Transport IMDG / IMO:
Class: 9
Packaging group: III
Labelling no: 9
Shipping name:, N.O.S. Ethanol solution

IMO hazardous description: 1170
Class: 3 Item no: 3 b Packing
group: II HI-No:
Hazard labels: 33
Shipping name:, N.O.S. Ethanol solution

15) Regulatory Information:

Contains: Forchlorfenuron/Ethanol
Symbol(s): F – Highly flammable
N – Dangerous for the environment

R-phrase(s):
R11 – Highly Flammable
R40 – Limited evidence of a carcinogenic effect.
R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s):
S2 – Keep out of reach of children.
S 7 – Keep container tightly closed.
S13 – Keep away from food, drink and animal feeding stuffs.
S16 – Keep away from sources of ignition. No smoking.
S22 – Do not breathe vapour.
S24 – Avoid contact with the skin.
S36/37 – Wear suitable protective clothing and gloves.
S46 – If swallowed, seek medical advice immediately and show this label.

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 of 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 that the transfer of all relevant information from this SDS to their own SDS.

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