

Buster®

Date of Issue: 12 January 2015

Date of Previous Issue: 12th September 2012

Spec No. 102000021038

1. Identification of the Substance/Mixture and Supplier.

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| Product name: | Buster |
| Alternative names/synonyms: | Basta AE F039866 00 SL 18 B7 |
| Application: | Non-selective contact herbicide |
| EPA approval: | HSR000152 |
| Company: | Bayer New Zealand Limited, 3 Argus Place, Hillcrest, Auckland 0627, New Zealand. |
| Telephone: | 0800 428 246 |
| Facsimile: | (09) 441 8645 |
| Emergency telephone: | 0800 734 607 Orica SH&E Shared services (24hr) |

2. Hazards Identification.

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| Hazard classification: | Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. |
| Classification and type: | HSNO Class* 3.1D Combustible liquid – keep away from naked flame. 6.1D May be harmful if swallowed. 6.3B May cause skin irritation. 6.4A May cause eye irritation. 6.8B May cause reproductive/developmental damage from repeated oral exposure. 6.9A May cause organ damage through from repeated oral exposure at high doses. 9.1C Harmful to aquatic organisms. 9.2B Toxic to the soil environment 9.3C Harmful to terrestrial vertebrates. |

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3. Composition/Information on Ingredients.**Chemical nature**

Soluble concentrate (SL)

Glufosinate-ammonium 200 g/L

Hazardous components

| Ingredient | CAS No | Content (%) |
|---------------------------|------------|-------------|
| Glufosinate-ammonium | 77182-82-2 | 18.02 |
| 1-Methoxy-2-propanol | 107-98-2 | 9.91 |
| Other ingredients to 100% | | |

4. First Aid Measures.

General advice:

Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

Inhalation:

Move to fresh air. Keep patient warm and at rest. If symptoms persist, call a doctor.

Skin contact:

Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a doctor.

Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

Ingestion:

Do NOT induce vomiting. Keep at rest. Rinse mouth. Contact the **National Poisons Centre 0800 POISON (0800 764 766)** or a doctor immediately.

Most important symptoms and effects, both acute and delayed:

Vomiting, Diarrhoea, Abdominal pain, Tremors, Hypotension, muscular weakness, Unconsciousness, Coma, Convulsions, Respiratory failure, Nausea, Tachycardia.
Symptoms may be delayed.

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| <p>Notes to Physician: Treatment</p> <p>Further information:</p> | <p>Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.</p> <p>In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable.</p> <p>Forced alkaline diuresis and hemodialysis may be considered.</p> <p>There is no specific antidote.</p> <p>In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens.</p> <p>If not effective, phenobarbital may be used.</p> <p>Contraindication: atropine.</p> <p>Oxygen or artificial respiration if needed.</p> <p>Keep respiratory tract clear.</p> <p>ECG - monitoring (Electrocardiogram).</p> <p>EEG - monitoring (Electroencephalogram).</p> <p>Monitor: respiratory, cardiac and central nervous system.</p> <p>Keep under medical supervision for at least 48 hours.</p> <p>Contact the National Poisons and Hazardous Chemicals Information centre in Dunedin, PO Box 913, Dunedin. Phone 0800 POISON (0800 764 766).</p> |
| 5. Fire-Fighting Measures. | |
| <p>Suitable extinguishing media:</p> <p>Special hazards arising from the substance or mixture:</p> <p>Special protective equipment for fire-fighters:</p> <p>Further information:</p> | <p>Water spray, foam, dry powder or carbon dioxide (CO₂).</p> <p>In the event of fire the following may be released: Carbon monoxide (CO) Carbon dioxide (CO₂) Nitrogen oxides (NO_x) Oxides of phosphorus Sulphur oxides</p> <p>In the event of fire, wear self-contained breathing apparatus. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth.</p> <p>Contain the spread of the fire-fighting media. Do not allow run-off from fire-fighting to enter drains or water courses.</p> |

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6. Accidental Release Measures.

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| Personal precautions: | Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment. |
| Environmental precautions: | Do not allow to get into surface water, drains and ground water. |
| Methods for cleaning up: | Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal. |
| Additional advice: | Information regarding safe handling: see section 7. Information regarding personal protective equipment: see section 8. Information regarding waste disposal, see section 13. |

7. Handling and Storage.

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| Handling: | <p>Advice on safe handling Use only in area provided with appropriate exhaust ventilation. For personal protection see section 8.</p> <p>Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).</p> |
| Storage: | <p>Requirements for storage areas and containers Keep out of reach of children. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from direct sunlight. Protect from freezing.</p> <p>Advice on common storage Keep away from food, drink and animal feeding stuffs.</p> |

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Specific end uses
Refer to the label and/or leaflet.

8. Exposure Control/Personal Protection.**Components with workplace control parameters**

| Components | CAS-No. | Control parameters | Update | Basis |
|----------------------|----------|--|------------|---------|
| 1-Methoxy-2-propanol | 107-98-2 | 553 mg/m ³ / 150 ppm (STEL) | 08 2005 | AU OEL* |
| 1-Methoxy-2-propanol | 107-98-2 | 369 mg/m ³ / 100 ppm (TWA) | 08 2005 | AU OEL* |

*AU OEL: Australian "Occupational Exposure Limits"

Personal protect equipment:

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection:

Use respiratory protection for organic vapours.
AS/NZS 1715/1716 approved respirator.

Hand protection:

Wear elbow-length PVC or nitrile gloves. Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.

Eye protection:

Wear face-shield or goggles.

Skin and body protection:

Cotton overall buttoned to the neck and wrist.
Washable hat.

9. Physical and Chemical Properties.**Appearance**

Form: Liquid
Colour: Blue to blue green
Odour: Weakly pungent
pH: 5.9 – 7.9 at 100% (23 °C)
Flash point: 60 °C

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| Autoignition temperature: | 440 °C |
| Upper explosion limit: | no data available |
| Lower explosion limit: | no data available |
| Vapour pressure: | no data available |
| Relative vapour density: | no data available |
| Density: | ca. 1.11 g/cm ³ at 20 °C |
| Water solubility | soluble |
| Partition coefficient: n-octanol/water | no data available |
| Other information: | Further safety related physical-chemical data are not known. |
| 10. Stability and Reactivity. | |
| Reactivity: | Stable under normal conditions. |
| Chemical stability: | Stable under recommended storage conditions. |
| Possibility of hazardous reactions: | No hazardous reactions when stored and handled according to prescribed instructions. |
| Conditions to avoid: | Heat, flames and sparks. |
| Materials to avoid: | Strong oxidizing agents Acids Bases Alkali metals |
| Hazardous decomposition products: | Thermal decomposition can lead to release of: Ammonia Oxides of carbon Nitrogen oxides (NO _x) Oxides of phosphorus Sulphur oxides |

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11. Toxicological Information.

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| Acute oral toxicity: | LD50 (rat) 1,910 mg/kg |
| Acute inhalation toxicity: | LC50 (rat) 3.22 mg/L Exposure time: 4 h |
| Acute dermal toxicity: | LD50 (rat) 1,380 mg/kg |
| Skin irritation: | Slight irritation (rabbit) |
| Eye irritation: | Moderate eye irritation (rabbit) |
| Sensitization: | Non-sensitizing. (guinea pig) |
| Assessment repeated dose toxicity: | Glufosinate-ammonium caused neurobehavioral effects and/or neuropathological changes in animal studies. Glufosinateammonium was well tolerated in rats and mice but less well tolerated in the dog in subchronic studies. |
| Assessment mutagenicity: | Glufosinate-ammonium was not mutagenic or genotoxic in a battery of in vitro and in vivo tests. |
| Assessment carcinogenicity | Glufosinate-ammonium was not carcinogenic in lifetime feeding studies in rats and mice. |
| Assessment toxicity to reproduction: | Implantation loss occurred in a rat multigeneration study with Glufosinate-ammonium. There were no effects on male fertility. |
| Assessment developmental toxicity: | Glufosinate-ammonium caused developmental toxicity only at dose levels toxic to the dams. Glufosinate-ammonium caused an increased incidence of post implantation losses. |

12. Ecological Information.

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| Toxicity to fish: | LC50 (<i>Oncorhynchus mykiss</i> (rainbow trout)) 34 mg/L Exposure time: 96 h Test conducted with a similar formulation. |
| Toxicity to aquatic invertebrates: | EC50 (Water flea (<i>Daphnia magna</i>)) 26.8 Exposure time: 48 h Test conducted with a similar formulation. |

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| <p>Toxicity to aquatic plants:</p> <p>Toxicity to other organisms:</p> <p>Biodegradability:</p> <p>Stability in soil:</p> <p>Bioaccumulation:</p> <p>Other adverse effects:</p> | <p><i>Desmodemus subspicatus</i> 36 mg/l Exposure time: 72 h Test conducted with a similar formulation.</p> <p>LC50 (<i>Coturnix japonica</i> (Japanese quail)) > 5,000 mg/kg Exposure time: 8 d The value mentioned relates to the active ingredient glufosinate-ammonium.</p> <p>Readily biodegradable. The value mentioned relates to the active ingredient glufosinate-ammonium.</p> <p>no data available</p> <p>The ecological data given are those of the active ingredient. Does not bioaccumulate.</p> <p>No other effects to be mentioned.</p> |
| 13. Disposal Considerations. | |
| <p>Product disposal:</p> <p>Container disposal:</p> | <p>Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.</p> <p>Triple rinse the empty container adding rinseate to the spray tank. Recycle if possible. If allowed under local authority, burn if circumstances, especially wind direction permit, otherwise crush and bury in an approved local authority facility. Do not use container for any other purpose.</p> |
| 14. Transport Information. | |
| | <p>According to national and international transport regulations not classified as dangerous goods.</p> |

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15. Regulatory Information.

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| HSNO Approval Number: | HSR000152 |
| HSNO Controls: | See www.epa.govt.nz for controls. |
| ACVM Registration: | P3064 |
| ACVM Controls: | See www.foodsafety.govt.nz for registration conditions. |

16. Other Information.

N/A

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The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.