

# Safety Data Sheet

BASF Safety Data Sheet  
Date / Revised: 21.07.2023  
Product: **BUSTER®**

(Ref ID no. 30716991/SDS\_CPA\_00/EN)

## 1. Identification

### Product identifier

**BUSTER®**

### Recommended uses and restrictions on use (if any)

Recommended use:  
crop protection product, herbicide.

Restricted use:  
not applicable

### Manufacturer / Supplier

BASF New Zealand Limited  
5E City Works Depot,  
77 Cook Street  
Auckland Central, Auckland 1010  
NEW ZEALAND  
Phone: + 64 9 255 4300  
0800 932 273  
E-mail address: reception@basf-nz.co.nz

### Emergency telephone number

National Poisons Centre: 0800 764 766  
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)

## 2. Hazard Identification

### Classification of the substance or mixture

Flammable liquid	:	Category 4
Acute toxicity (oral)	:	Category 4
Acute toxicity (dermal)	:	Category 4
Acute toxicity (inhalation)	:	Category 4
Eye irritation	:	Category 2
Reproductive toxicity	:	Category 2
Specific target organ toxicity - repeat exposure	:	Category 1
Aquatic environment - chronic	:	Category 3
Hazardous to soil organisms	:	
Hazardous to terrestrial vertebrates	:	

BASF Safety Data Sheet  
 Date / Revised: 21.07.2023  
 Product: **BUSTER®**

(Ref ID no. 30716991/SDS\_CPA\_00/EN)

**GHS Label Elements, including Precautionary Statements:**Signal Word:

DANGER

Pictograms:GHS Hazard Statements

H227 : Combustible liquid.  
 H302 : Harmful if swallowed.  
 H312 : Harmful in contact with skin.  
 H332 : Harmful if inhaled.  
 H319 : Causes serious eye irritation.  
 H361 : Suspected of damaging fertility or the unborn child.  
 H372 : Causes damage to organs through prolonged or repeated exposure.  
 H412 : Harmful to aquatic life with long lasting effects.  
       : Hazardous to soil organisms.  
       : Hazardous to terrestrial vertebrates.

GHS Precautionary Statements (Prevention)

P102 : Keep out of reach of children.  
 P103 : Read label before use.  
 P201 : Obtain special instructions before use.  
 P202 : Do not handle until all safety precautions have been read and understood.  
 P210 : Keep away from flames and hot surfaces. No smoking.  
 P260 : Do not breathe mist, vapours and spray.  
 P261 : Avoid breathing mist, vapours and spray.  
 P264 : Wash hands and face thoroughly after handling.  
 P270 : Do not eat, drink or smoke when using this product.  
 P271 : Use only outdoors or in a well-ventilated area.  
 P280 : Wear protective gloves, protective clothing, eye/face protection.  
 P281 : Use personal protective equipment as required.

GHS Precautionary Statements (Response)

P101 : If medical advice is needed, have product container or label at hand.  
 P308 + P313 : IF exposed or concerned: Get medical advice/attention.  
 P314 : Get medical advice / attention if you feel unwell.  
 P301 + P312 : IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.  
 P330 : Rinse mouth.  
 P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.  
 P312 : Call a POISON CENTER or doctor/physician if you feel unwell.  
 P322 : Specific measures (see supplemental first aid instructions on this label).  
 P304 + P340 : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
 P312 : Call a POISON CENTER or doctor/physician if you feel unwell.  
 P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 : If eye irritation persists: Get medical advice/ attention.  
 P363 : Wash contaminated clothing before reuse.  
 P370+P378 : In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

GHS Precautionary Statements (Storage)

P403 + P235 : Store in a well-ventilated place. Keep cool.  
 P405 : Store locked up

BASF Safety Data Sheet  
Date / Revised: 21.07.2023  
Product: **BUSTER®**

(Ref ID no. 30716991/SDS\_CPA\_00/EN)

GHS Precautionary Statements (Disposal):

P501 : Dispose of contents/container to hazardous or special waste collection point.  
Information regarding disposal considerations can be found in section 13.

**According to UN GHS criteria**

Hazard determining component(s) for labelling: glufosinate ammonium (ISO)

**Other hazards**

No other hazards known.

See section 12 - Results of PBT and vPvB assessment.

To avoid risks to human health and the environment, comply with the instructions for use.

---

### 3. Composition/Information on Ingredients

**Substances**

Not applicable

**Mixtures**

Hazardous ingredients (GHS)

According to UN GHS criteria

glufosinate ammonium (ISO): ammonium 2-amino-4-(hydroxymethylphosphinyl)butyrate

Content (W/W):	18 %
CAS Number:	77182-82-2
EC-Number:	278-636-5
INDEX-Number:	015-155-00-X

Polyethyleneglycolmonoalkylethersulphate, sodium salt

Content (W/W):	> 10 % - < 25 %
CAS Number:	68891-38-3
EC-Number:	500-234-8

1-methoxy-2-propanol

Content (W/W):	> 1 % - < 10 %
CAS Number:	107-98-2
EC-Number:	203-539-1
INDEX-Number:	603-064-00-3

---

### 4. First-Aid Measures

**Description of necessary first aid measures**

General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Immediately wash thoroughly with soap and water, seek medical attention.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

BASF Safety Data Sheet  
Date / Revised: 21.07.2023  
Product: **BUSTER®**

(Ref ID no. 30716991/SDS\_CPA\_00/EN)

On ingestion:

DO NOT induce vomiting. Call a poison control center or physician for treatment advice. Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

**Most important symptoms and effects, both acute and delayed**

Symptoms:

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., vomiting, diarrhea, abdominal cramps, tremors, hypotony, unconsciousness, coma, convulsions, respiratory disorders, nausea, rapid heart rate, Symptoms may be delayed for several hours.

**Indication of any immediate medical attention and special treatment needed**

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

Medical advice:

Contact the National Poisons and Hazardous Chemicals Information centre.  
Phone 0800 POISON (0800 764 766).

---

## 5. Fire-Fighting Measures

**Suitable extinguishing media**

Use water spray, dry powder, foam, carbon dioxide

**Specific hazards**

carbon monoxide, carbon dioxide, nitrogen oxides

The substances/groups of substances mentioned can be released in case of fire.

The substance is non-combustible. Product is not explosive.

**Special protective equipment for fire-fighters**

Wear self-contained breathing apparatus and chemical-protective clothing.

**Precautions for fire-fighters**

Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

---

## 6. Accidental Release Measures

**Personal precautions, Protective equipment and Emergency procedures**

Do not breathe vapour/spray.

Use personal protective clothing.

Avoid contact with the skin, eyes and clothing.

**Environmental precautions**

Do not discharge into the subsoil/soil.

Do not discharge into drains/surface waters/groundwater.

BASF Safety Data Sheet  
Date / Revised: 21.07.2023  
Product: **BUSTER®**

(Ref ID no. 30716991/SDS\_CPA\_00/EN)

### Methods and material for containment and cleaning up

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

For large amounts: Dike spillage. Pump off product.

Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labelled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

## 7. Handling and Storage

### Precautions for safe handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

### Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

### Further information on storage conditions:

Keep only in the original container. Keep container tightly closed and dry; store in a cool place. Keep away from heat. Protect from direct sunlight. Protect from frost.

## 8. Exposure Controls/Personal Protection

### Control parameters

#### Occupational exposure limits

Component:	1-methoxy-2-propanol
CAS Number:	107-98-2
TWA Value:	100 ppm / 369 mg/m <sup>3</sup> (source: WES 2022)
STEL Value:	150 ppm / 553 mg/m <sup>3</sup> (source: WES 2022)

### Engineering controls

Maintain air concentrations below occupational exposure standards.

### Personal protective equipment

#### Respiratory protection:

Suitable respiratory protection for lower concentrations or short-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic and alkaline compounds (e.g. EN 14387 Type ABEK).

#### Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

#### Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

#### Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

BASF Safety Data Sheet  
 Date / Revised: 21.07.2023  
 Product: **BUSTER®**

(Ref ID no. 30716991/SDS\_CPA\_00/EN)

### General safety and hygiene measures

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

## 9. Physical and Chemical Properties

Form:	liquid
Colour:	blue to green
Odour:	pungent
Odour threshold:	Not determined due to potential health hazard by inhalation.
pH value:	approx. 6 - 8 (20°C) (as such)
Melting point:	approx. 0°C Information applies to the solvent.
Boiling point:	approx. 100°C Information applies to the solvent.
Flash point:	60°C UN L.2 Sustained combustibility. The product does not burn self-sustainingly.
Evaporation rate:	not applicable
Flammability:	not applicable
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Ignition temperature:	Based on the water content the product does not ignite.
Vapour pressure:	approx. 23 hPa (20°C). Information applies to the solvent.
Density:	approx. 1.11 g/cm <sup>3</sup> (20°C)
Relative vapour density (air):	not applicable
Solubility in water:	soluble
Partitioning coefficient n-octanol/water (log Kow):	not applicable
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Explosion hazard:	Based on the chemical structure there is no indicating of explosive properties.
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.

## 10. Stability and Reactivity

### **Reactivity**

No hazardous reactions if stored and handled as prescribed/indicated.

### **Chemical stability**

The product is stable if stored and handled as prescribed/indicated.

### **Possibility of hazardous reactions**

No hazardous reactions if stored and handled as prescribed/indicated.

### **Conditions to avoid**

Avoid excessive temperatures. Avoid direct sunlight. See SDS section 7 - Handling and storage.

### **Incompatible materials / Substances to avoid**

Bases

BASF Safety Data Sheet  
Date / Revised: 21.07.2023  
Product: **BUSTER®**

(Ref ID no. 30716991/SDS\_CPA\_00/EN)

### **Hazardous decomposition products**

ammonia, anhydrous

No hazardous decomposition products if stored and handled as prescribed/indicated.

## **11. Toxicological Information**

### **Acute toxicity**

#### Assessment of acute toxicity:

Of moderate toxicity after single ingestion. Of moderate toxicity after short-term skin contact. Inhalation is not likely in the available physical form. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Experimental/calculated data:

LD50 rat (oral): 1.910 mg/kg

LC50 rat (by inhalation): 3.22 mg/l 4 h  
The test result applies only to the substance transferred into respirable aerosol (particles < 20 µm).

LD50 rat (dermal): 1.380 mg/kg

### **Skin Corrosion / Irritation**

#### Assessment of irritating effects:

Not irritating to the skin. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant.

### **Serious Eye Damage / Irritation**

#### Assessment of irritating effects:

Eye contact causes irritation. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Experimental/calculated data:

Serious eye damage/irritation rabbit: Irritant.

### **Respiratory or Skin sensitization**

#### Assessment of sensitization:

Sensitization after skin contact possible.

#### Experimental/calculated data:

Mouse Local Lymph Node Assay (LLNA) mouse: sensitizing.

### **Germ cell mutagenicity**

#### Assessment of mutagenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

BASF Safety Data Sheet  
Date / Revised: 21.07.2023  
Product: **BUSTER®**

(Ref ID no. 30716991/SDS\_CPA\_00/EN)

### **Carcinogenicity**

#### Assessment of carcinogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.

### **Reproductive toxicity**

#### Assessment of reproduction toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: glufosinate ammonium (ISO)

#### Assessment of reproduction toxicity:

Causes impairment of fertility in laboratory animals.

### **Developmental toxicity**

#### Assessment of teratogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: glufosinate ammonium (ISO)

#### Assessment of teratogenicity:

The substance caused malformations/developmental toxicity in laboratory animals. The substance did not cause malformations in animal studies; however, toxicity to development was observed at doses that were toxic to the parental animals.

### **Specific target organ toxicity (single exposure)**

#### Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

### **Repeated dose toxicity and Specific target organ toxicity (repeated exposure)**

#### Assessment of repeated dose toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: glufosinate ammonium (ISO)

#### Assessment of repeated dose toxicity:

Prolonged or repeated exposure may cause neurological disturbances.

### **Aspiration hazard**

No aspiration hazard expected.

### **Other relevant toxicity information**

Misuse can be harmful to health.



## 12. Ecological Information

### Ecotoxicity

#### Assessment of aquatic toxicity:

Harmful to aquatic life.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Toxicity to fish:

LC50 (96 h): 34 mg/l, *Oncorhynchus mykiss*

#### Aquatic invertebrates:

EC50 (48 h) 26.8 mg/l, *Daphnia magna*

#### Aquatic plants:

EC50 (72 h) 36 mg/l, *Desmodemus subspicatus*

### Persistence and degradability

#### Assessment biodegradation and elimination (H<sub>2</sub>O):

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: glufosinate ammonium (ISO

#### Assessment biodegradation and elimination (H<sub>2</sub>O):

Not readily biodegradable (by OECD criteria).

### Bioaccumulative potential

#### Assessment bioaccumulation potential:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: glufosinate ammonium (ISO

#### Bioaccumulation potential:

Bioconcentration factor: 0.05 – 0.3 (42 d), *Lepomis macrochirus*

Does not accumulate in organisms.

### Mobility in soil

#### Assessment transport between environmental compartments:

Adsorption in soil: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: glufosinate ammonium (ISO

#### Assessment transport between environmental compartments:

Adsorption in soil: Following exposure to soil, the product trickles away and can - dependent on degradation - be transported to deeper soil areas with larger water loads.

### Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

BASF Safety Data Sheet  
 Date / Revised: 21.07.2023  
 Product: **BUSTER®**

(Ref ID no. 30716991/SDS\_CPA\_00/EN)

**Other adverse effects**

Not applicable

**Additional information**

Other ecotoxicological advice:

Do not discharge product into the environment without control.

Do not apply onto or into water.

**13. Disposal Considerations****Container:**

Triple rinse empty container and add rinsate to the spray tank. Recycle through Agrecovery (0800 247 326, [www.agrecovery.co.nz](http://www.agrecovery.co.nz)). Do not use container for any other purpose.

**Product:**

Dispose of this product only by using according to the label or at an approved facility. Do NOT burn product. Do NOT contaminate water with product or used container.

Waste product/package may be sent to a suitable incineration plant, observing local regulations.

**14. Transport Information****Commercial transport:**

Not classified as Dangerous Goods for Land/rail (ADR/RID), sea (IMDG/GGVSee) and air transport (ICAO/IATA):

UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Marine pollutant:	Not applicable
HAZCHEM:	Not applicable
Special precautions when transporting the substance:	Not applicable

**15. Regulatory Information****HSNO Approval Number**

HSR000152.

See [www.epa.govt.nz](http://www.epa.govt.nz) for approval conditions.**Tolerable Exposure Limit or Environmental Exposure Limit**

TEL:	Not applicable
EEL:	Not applicable

**Relevant Regulatory Requirements**

Qualifications:	Not required
Certified Handler:	Not required
Tracking:	Not required
Record Keeping:	Not required
Controlled substance licence:	Not required

BASF Safety Data Sheet  
Date / Revised: 21.07.2023  
Product: **BUSTER®**

(Ref ID no. 30716991/SDS\_CPA\_00/EN))

### ACVM Registration

P003064

See [www.foodsafety.govt.nz/acvm](http://www.foodsafety.govt.nz/acvm) for registration conditions.

### International Agreements related to the substance such as Montreal Protocol, the Stockholm Convention or Rotterdam Convention

not applicable

## 16. Other Information

### Date of preparation of the SDS

21 July 2023

### Key or legend to abbreviations and acronyms used

ACVM	Agricultural Compounds and Veterinary Medicines
ADR/RID	Dangerous Goods for Land / Rail
EEL	Environmental Exposure Limit
EPA	Environmental Protection Authority
GHS	Globally Harmonised System
ICAO	International Civil Aviation Organisation
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LD50	Lethal concentration to 50% of the test population
N.O.S.	Not Otherwise Specified
OEL	Operator Exposure Limits
PBT or vPvP	Persistent / Bioaccumulative / Toxic or very Persistent/very Bioaccumulative
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity
TEL	Tolerable Exposure Limit
UN GHS	United Nations Globally Harmonised System
WES	Workplace Exposure Standards

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.