

SAFETY DATA SHEET



REASON

Version 1 / NZ
102000003216

1/9
Revision Date: 15.11.2017
Print Date: 15.11.2017

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name REASON
Product code (UVP) 05947073

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use Fungicide
EPA-Nr. HSR001758

Restrictions on use See product label for restrictions.

1.3 Details of the supplier of the safety data sheet

Supplier Bayer New Zealand Limited
3 Argus Place, Hillcrest
Auckland 0627
New Zealand
Telephone 0800 428 246
Telefax (09) 441 8645

1.4 Emergency telephone no.

Emergency Number 0800 734 607 (24hr)
Global Incident Response Hotline (24h) +1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001

6.9B
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.
9.1A
H410 Very toxic to aquatic life with long lasting effects.
9.2D
H423 Harmful to the soil environment.

2.2 Label elements

Labelling in accordance with Hazardous Substances Identification Regulations 2001

Hazard label for supply/use required.

SAFETY DATA SHEET



REASON

Version 1 / NZ
10200003216

2/9

Revision Date: 15.11.2017
Print Date: 15.11.2017



Signal word: Warning

Hazard statements

H373 May cause damage to organs through prolonged or repeated exposure if swallowed.
H410 Very toxic to aquatic life with long lasting effects.
H423 Harmful to the soil environment.

Precautionary statements

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P314 Get medical advice/ attention if you feel unwell.
P391 Collect spillage.
P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

Suspension concentrate (=flowable concentrate)(SC)
Fenamidone 500 g/l SC

Hazardous components

Name	CAS-No.	Conc. [%]
Fenamidone	161326-34-7	44.4
Ethoxylated polyarylphenol	99734-09-5	>= 1.0 – <= 25
1,2-Propanediol	57-55-6	>= 1.0
1,2-Benzisothiazol-3(2H)-one	2634-33-5	>= 0.005 – <= 0.05

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely. When symptoms develop and persist, seek medical advice.

Inhalation When inhaled remove to fresh air and seek medical aid.

Skin contact Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

Eye contact In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

SAFETY DATA SHEET



REASON

Version 1 / NZ
102000003216

3/9

Revision Date: 15.11.2017
Print Date: 15.11.2017

Ingestion Do NOT induce vomiting. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms To date no symptoms are known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment Treat symptomatically. There is no specific antidote. 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.

Contact the National Poisons and Hazardous Chemicals Information center in Dunedin, PO Box 913, Dunedin. Phone 0800 POISON (0800 764 766).

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable High volume water jet

5.2 Special hazards arising from the substance or mixture In the event of fire the following may be released:, Carbon monoxide (CO), Nitrogen oxides (NOx), Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

Further information Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

6.2 Environmental precautions Do not allow to get into surface water, drains and ground water.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice Check also for any local site procedures.

SAFETY DATA SHEET



REASON

Version 1 / NZ
10200003216

4/9

Revision Date: 15.11.2017
Print Date: 15.11.2017

6.4 Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.

Advice on protection against fire and explosion Keep away from heat and sources of ignition.

Hygiene measures Remove soiled clothing immediately and clean thoroughly before using again. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Keep away from direct sunlight. Protect from freezing.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

Suitable materials HDPE (high density polyethylene)

7.3 Specific end use(s) Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Fenamidone	161326-34-7	1 mg/m ³ (TWA)		OES BCS*
1,2-Propanediol (Particulate.)	57-55-6	10 mg/m ³ (TWA)	07 2011	NZ OEL
1,2-Propanediol (Vapor and particulates.)	57-55-6	474 mg/m ³ /150 ppm (TWA)	07 2011	NZ OEL

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

8.2 Exposure controls

Personal protective 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

Respiratory protection is not required under anticipated circumstances of exposure.

Respiratory protection should only be used to control residual risk of

SAFETY DATA SHEET



REASON

Version 1 / NZ
10200003216

5/9

Revision Date: 15.11.2017
Print Date: 15.11.2017

short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection

Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness of 0,4 mm). Wash when contaminated and dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Eye protection

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

Skin and body protection

Wear standard coveralls and Category 3 Type 6 suit.
If there is a risk of significant exposure, consider a higher protective type suit.
Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

General protective measures

Avoid contact with skin and eyes.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form	suspension
Colour	white to light beige
pH	6.5 - 8.0 at 100 % (23 °C)
Flash point	>100 °C
Density	1.13 g/cm ³ at 20 °C
Water solubility	dispersible
Partition coefficient: n-octanol/water	Fenamidone: log Pow: 2.8
Viscosity, dynamic	500 - 900 mPa.s at 20 °C
Surface tension	41 mN/m

9.2 Other information Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Thermal decomposition > 500 °C

10.2 Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

SAFETY DATA SHEET



REASON

Version 1 / NZ
102000003216

6/9

Revision Date: 15.11.2017
Print Date: 15.11.2017

- 10.4 Conditions to avoid** Extremes of temperature and direct sunlight.
- 10.5 Incompatible materials** Store only in the original container.
- 10.6 Hazardous decomposition products** No decomposition products expected under normal conditions of use.
-

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

- Acute oral toxicity** LD50 (Rat) > 5,000 mg/kg
- Acute inhalation toxicity** LC50 (Rat) > 0.9 mg/l
Exposure time: 4 h
Highest attainable concentration.
No deaths
- Acute dermal toxicity** LD50 (Rabbit) > 5,000 mg/kg
- Skin irritation** No skin irritation (Rabbit)
- Eye irritation** Irritating to eyes. (Rabbit)
- Sensitisation** Non-sensitizing. (Guinea pig)

Assessment STOT Specific target organ toxicity – single exposure

Fenamidone: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

Fenamidone did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Fenamidone was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Fenamidone was not carcinogenic in lifetime feeding studies in rats and mice.

Assessment toxicity to reproduction

Fenamidone did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Fenamidone did not cause developmental toxicity in rats and rabbits.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

- Toxicity to fish** LC50 (Oncorhynchus mykiss (rainbow trout)) 0.74 mg/l
Exposure time: 96 h

SAFETY DATA SHEET



REASON

Version 1 / NZ
102000003216

7/9

Revision Date: 15.11.2017
Print Date: 15.11.2017

Toxicity to aquatic invertebrates The value mentioned relates to the active ingredient fenamidone.
EC50 (Daphnia magna (Water flea)) 0.055 mg/l
static test;
Exposure time: 48 h
The value mentioned relates to the active ingredient fenamidone.

Toxicity to aquatic plants IC50 (Desmodesmus subspicatus (green algae)) 3.4 mg/l
Exposure time: 72 h
The value mentioned relates to the active ingredient fenamidone.

12.2 Persistence and degradability

Biodegradability Fenamidone:
Not rapidly biodegradable

Koc Fenamidone: Koc: 387

12.3 Bioaccumulative potential

Bioaccumulation Fenamidone:
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil Fenamidone: Moderately mobile in soils

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment Fenamidone: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Additional ecological information No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.

Contaminated packaging Triple rinse containers. 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.

SECTION 14: TRANSPORT INFORMATION

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

ADR/RID/ADN
14.1 UN number

3082

SAFETY DATA SHEET



REASON

Version 1 / NZ
102000003216

8/9
Revision Date: 15.11.2017
Print Date: 15.11.2017

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(FENAMIDONE SOLUTION)
14.3 Transport hazard class(es) 9
14.4 Packing group III
14.5 Environm. Hazardous Mark YES
Hazchem Code 3Z

IMDG

14.1 UN number **3082**
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(FENAMIDONE SOLUTION)
14.3 Transport hazard class(es) 9
14.4 Packing group III
14.5 Marine pollutant YES

IATA

14.1 UN number **3082**
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(FENAMIDONE SOLUTION)
14.3 Transport hazard class(es) 9
14.4 Packing group III
14.5 Environm. Hazardous Mark YES

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Further information

HSNO approval-Nr. HSR001758
HSNO Controls See www.epa.govt.nz
ACVM Reg. P7433
ACVM Condition See www.foodsafety.govt.nz

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

ADN European Agreement concerning the International Carriage of Dangerous Goods by
Inland Waterways
ADR European Agreement concerning the International Carriage of Dangerous Goods by
Road

SAFETY DATA SHEET



REASON

Version 1 / NZ
102000003216

9/9
Revision Date: 15.11.2017
Print Date: 15.11.2017

ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

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.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.