

Safety data sheet

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BASF Safety data sheet
Date / Revised: 28.10.2024
Product: **Spectrum**

Version: 2.0

(30503163/SDS_CPA_NZ/EN)

Date of print: 08.05.2026

1. Substance/preparation and manufacturer/supplier identification

Product name:
Spectrum

Use: crop protection product, herbicide

Manufacturer/supplier:

BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:

National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
European BASF Emergency Advice Number: +49 180 2273112

2. Hazard identification

Classification of the substance and mixture:

Acute toxicity: Cat.4 (oral)

Skin irritation: Cat.2

Eye irritation: Cat.2A

Skin sensitization: Cat.1B

Specific target organ toxicity — single exposure: Cat.3 (irritating to respiratory system)

Hazardous to the aquatic environment - acute: Cat.1

Hazardous to the aquatic environment - chronic: Cat.1

Label elements and precautionary statement:

Pictogram:



Signal Word:
Warning

Hazard Statement:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statement:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary Statements (Prevention):

P280	Wear protective gloves and eye protection or face protection.
P261	Avoid breathing mist or vapour or spray.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P312	Call a POISON CENTER or 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.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P330	Rinse mouth.
P391	Collect spillage.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P337 + P313	If eye irritation persists: Get medical attention.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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Other hazards which do not result in classification:

See section 12 - Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

crop protection product, herbicide, Emulsifiable concentrate (EC)

Hazardous ingredients

(S)-dimethenamid

Content (W/W): 65.8 %
 CAS Number: 163515-14-8

Acute Tox.: Cat. 4 (oral)
 Skin Sens.: Cat. 1
 Aquatic Acute: Cat. 1
 Aquatic Chronic: Cat. 1
 M-factor acute: 10
 M-factor chronic: 10

| solvent naphtha

Content (W/W): < 30 %
 CAS Number: 64742-94-5

Asp. Tox.: Cat. 1
 Aquatic Acute: Cat. 2
 Aquatic Chronic: Cat. 2

POE (6) Tridecyl ether phosphate, reaction product with POE (5) soya amine

Content (W/W): < 10 %

Skin Corr./Irrit.: Cat. 2
 Eye Dam./Irrit.: Cat. 2A

Oxirane, methyl-, polymer with oxirane, monobutyl ether

Content (W/W): < 5 %
 CAS Number: 9038-95-3

Acute Tox.: Cat. 4 (oral)
 Skin Corr./Irrit.: Cat. 2
 Eye Dam./Irrit.: Cat. 2A

| propane-1,2-diol

Content (W/W): < 5 %
 CAS Number: 57-55-6

4. 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.

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On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

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

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Note to physician:

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far

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

5. Fire-Fighting Measures

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

Specific hazards:

carbon monoxide, hydrogen chloride, carbon dioxide, nitrogen oxides, halogenated compounds, sulfur oxides

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

Special protective equipment:

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

Further information:

In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. 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:

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Methods for cleaning up or taking 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 labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Wear suitable protective equipment.

7. Handling and Storage

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.

Protection against fire and explosion:

Vapours may form ignitable mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Storage

Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

Storage stability:

Storage duration: 60 Months

Protect from temperatures below: -10 °C

Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure controls and personal protection

Components with occupational exposure limits

propane-1,2-diol, 57-55-6;

TWA value 10 mg/m³ (OEL (NZ)), Particulate

TWA value 474 mg/m³ ; 150 ppm (OEL (NZ)), Vapor and particulates

solvent naphtha, 64742-94-5;

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Skin Designation (ACGIHTLV), Non-aerosol
Measured as: total hydrocarbon vapor
Danger of cutaneous absorption
TWA value 200 mg/m³ (ACGIHTLV), Non-aerosol
Measured as: total hydrocarbon vapor
Application restricted to conditions in which there are negligible aerosol exposures.

(S)-dimethenamid, 163515-14-8;
TWA value 0.54 mg/m³ (BASF recomm. occupational exposure limit)

Naphthalene, 1-methyl-, 90-12-0;
Skin Designation (ACGIHTLV)
Danger of cutaneous absorption
TLV-SL (ACGIHTLV)
TWA value 0.05 ppm (ACGIHTLV)

Naphthalene, 2-methyl-, 91-57-6;
TWA value 0.5 ppm (ACGIHTLV)
Skin Designation (ACGIHTLV)
The substance can be absorbed through the skin.
Skin Designation (ACGIHTLV)
Danger of cutaneous absorption
TLV-SL (ACGIHTLV)
TWA value 0.05 ppm (ACGIHTLV)

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, alkaline compounds and toxic particles (e. g. EN 14387 Type ABEK-P3)

Hand protection:

Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): 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).

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.

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9. Physical and Chemical Properties

Form:	liquid	
Colour:	brown	
Odour:	aromatic	
Odour threshold:	Not determined due to potential health hazard by inhalation.	
pH value:	approx. 2 - 4 (1 %(m), 20 °C)	
Melting point:	The product has not been tested.	
Boiling point:	approx. 122.6 °C (9.3 Pa) Information based on the main component/s.	
Flash point:	106.7 °C	
Evaporation rate:	not applicable	
Flammability (solid/gas):	not applicable	
Lower explosion limit:	approx. 0.6 %(V) Information applies to the solvent.	
Upper explosion limit:	approx. 7.0 %(V) Information applies to the solvent.	
Ignition temperature:	approx. 391 °C	(Regulation 440/2008/EC, A.15)
Thermal decomposition:	230 °C , 370 kJ/kg	(DSC (OECD 113))
	380 °C , > 230 kJ/kg	(DSC (OECD 113))
	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.	
SADT:	> 75 °C	
Explosion hazard:	not explosive	(Regulation 440/2008/EC, A.14)
Fire promoting properties:	not fire-propagating	(Regulation 440/2008/EC, A.21)
Vapour pressure:	approx. < 1 mmHg (25 °C)	
Density:	approx. 1.13 g/cm ³ (20 °C)	
Relative vapour density (air):	not applicable	
Solubility in water:	emulsifiable, insoluble	

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Partitioning coefficient n-octanol/water (log Pow):
The statements are based on the
properties of the individual
components.

Information on: (S)-dimethenamid
Partitioning coefficient n-octanol/water (log Pow): 1.89

Viscosity, dynamic: approx. 43.6 mPa.s
(20 °C)

Viscosity, kinematic: 22 mm²/s
(40 °C)

Other Information:

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

10. Stability and Reactivity

Conditions to avoid:
See SDS section 7 - Handling and storage.

Thermal decomposition: 230 °C, 370 kJ/kg (DSC (OECD 113))

Thermal decomposition: 380 °C, > 230 kJ/kg (DSC (OECD 113))

Thermal decomposition: Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

Substances to avoid:
strong acids, strong bases, strong oxidizing agents

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

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

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

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

11. Toxicological Information

Routes of exposure

Acute oral toxicity

Experimental/calculated data:
LD50rat (oral): > 500 mg/kg (OECD Guideline 423)

Acute inhalation toxicity

LC50 rat (by inhalation): > 5.6 mg/l 4 h (OECD Guideline 403)
No mortality was observed.

Acute dermal toxicity

LD50 rat (dermal): > 5,000 mg/kg (OECD Guideline 402)
No mortality was observed.

Assessment of acute toxicity

Of moderate toxicity after single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Symptoms

Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
(Further) symptoms and / or effects are not known so far

Irritation

Assessment of irritating effects:

Eye contact causes irritation. Skin 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:

Skin corrosion/irritation rabbit: Irritant. (OECD Guideline 404)

Serious eye damage/irritation rabbit: Irritant. (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

Sensitization after skin contact possible. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:

modified Buehler test guinea pig: skin sensitizing (OECD Guideline 406)

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.

Carcinogenicity

Assessment of carcinogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Specific target organ toxicity (single exposure)

Causes temporary irritation of the respiratory tract.

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: (S)-dimethenamid

Assessment of repeated dose toxicity:

Adaptive effects were observed after repeated exposure in animal studies.

Aspiration hazard

| No aspiration hazard expected.

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

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) 7.94 mg/l, *Oncorhynchus mykiss* (OECD Guideline 203)

Aquatic invertebrates:

EC50 (48 h) 17.1 mg/l, *Daphnia magna* (OECD Guideline 202, part 1)

Aquatic plants:

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EC50 (72 h) 0.1327 mg/l (growth rate), *Desmodesmus subspicatus* (OECD Guideline 201)

EC10 (72 h) 0.0245 mg/l (growth rate), *Desmodesmus subspicatus*

EC50 (7 d) 0.0085 mg/l (growth rate), *Lemna gibba*

No observed effect concentration (7 d) 0.003 mg/l (growth rate), *Lemna gibba*

Information on: (S)-dimethenamid

Chronic toxicity to fish:

No observed effect concentration (90 d) 0.120 mg/l, *Oncorhynchus mykiss*

Information on: (S)-dimethenamid

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (21 d), 0.680 mg/l, *Daphnia magna*

Mobility

Assessment transport between environmental compartments:

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

Information on: (S)-dimethenamid

Assessment transport between environmental compartments:

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

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

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

Information on: (S)-dimethenamid

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

Bioaccumulation potential

Assessment bioaccumulation potential:

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

Information on: (S)-dimethenamid

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Additional information

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Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal Considerations

Must be sent to a suitable incineration plant, observing local regulations.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Domestic transport:

UN number or ID number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SOLVENT NAPHTHA, DIMETHENAMID-P)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

Further information

Hazchem Code:3Z
IERG Number:47

Sea transport

IMDG

UN number or ID number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SOLVENT NAPHTHA, DIMETHENAMID-P)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Marine pollutant: YES
Special precautions for user: EmS: F-A; S-F

Air transport

IATA/ICAO

UN number or ID number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SOLVENT NAPHTHA, DIMETHENAMID-P)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes

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Special precautions for user: None known

Further information

Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

15. Regulatory Information

Other regulations

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

A certified handler is not required for the handling of this substance.
Tracking requirements do not apply to this substance.

ACVM registration number P007979
HSNO Approval Number HSR100756
Active Ingredients for Use in the Manufacture of Agricultural Compounds Group Standard 2020

16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

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.