

Safety data sheet

BASF Safety Data Sheet
Date / Revised: 13.05.2022
Product: **REVYLUTION**[®]

(Ref. 30784054/SDS_CPA_NZ/EN; Version 1.0)

SECTION 1: Substance/preparation and manufacturer/supplier identification

Revylution[®]

Use: crop protection product, fungicide

Manufacturer/supplier:

BASF New Zealand Limited
5E City Works Depot
77 Cook Street
Auckland 1010
NEW ZEALAND

Telephone: +64 9 255-4300
0800 932 273

Emergency Information

National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

SECTION 2: Hazards identification

Classification of the substance or mixture

Acute Tox. 4 (inhalation)
Skin Irrit. 2
STOT Single Exp. 3
STOT Rep. Exp. 2
Aquatic Chronic 1

Label elements and precautionary statements:

Pictogram:



Signal Word:
WARNING

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Hazard statements:

H333	May be harmful if inhaled.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H373	May cause damage to the kidney through repeated oral exposure at high doses.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P102	Keep out of reach of children.
P103	Read label before use.
P264	Wash hands and exposed skin thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P260	Do not breathe mist/vapours/spray.

Precautionary Statements (Response):

P101	If medical advice is needed, have product container or label at hand.
P304+P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P304+ P312	IF INHALED: Call a POISON CENTRE or doctor/physician if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P362	Take off contaminated clothing and wash before re-use.
P314	Get medical advice/attention if you feel unwell.
P391	Collect spillage.

Precautionary Statements (Storage):

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

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.

SECTION 3: Composition/information on ingredients

Substance nature: mixture

crop protection product, fungicide, Emulsifiable concentrate (EC)

Hazardous ingredients

1H-1,2,4-Triazole-1-ethanol, α -[4-(4-chlorophenoxy)-2-(trifluoromethyl)phenyl]- α -methyl-
Content (W/W): 10.07 %
CAS Number: 1417782-03-6

Skin Sens.: Cat. 1
Aquatic Acute: Cat. 1
Aquatic Chronic: Cat. 1
M-factor acute: 1
M-factor chronic: 1

Hydrocarbons, C10-C13, aromatics, <1%
naphthalene
Content (W/W): < 15 %
CAS Number: 64742-94-5

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

Naphthalene, 2-methyl-
Content (W/W): < 5 %
CAS Number: 91-57-6

Acute Tox.: Cat. 4 (oral)
Aquatic Chronic: Cat. 2

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Naphthalene, 1-methyl-
Content (W/W): < 3 %
CAS Number: 90-12-0

Asp. Tox.: Cat. 1
Acute Tox.: Cat. 4 (oral)
Aquatic Acute: Cat. 2
Aquatic Chronic: Cat. 2

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

SECTION 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.

On skin contact:

Immediately wash thoroughly with plenty of soap and water.

On contact with eyes:

Immediately 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

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

SECTION 5: Fire-fighting measures

Suitable extinguishing media:

water spray, dry powder, foam, carbon dioxide

Specific hazards:

carbon monoxide, carbon dioxide, hydrogen chloride, hydrogen fluoride, 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:

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.

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

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.

SECTION 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: 24 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.

SECTION 8: Exposure controls and personal protection

Components with occupational exposure limits

solvent naphtha, 64742-94-5;

TWA value 200 mg/m³ (ACGIHTLV), Non-aerosol

Measured as: total hydrocarbon vapor

Application restricted to conditions in which there are negligible aerosol exposures.

Skin Designation (ACGIHTLV), Non-aerosol

Measured as: total hydrocarbon vapor

Danger of cutaneous absorption

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.

Naphthalene, 1-methyl-, 90-12-0;
 TWA value 0.5 ppm (ACGIHTLV)
 Skin Designation (ACGIHTLV)
 Danger of cutaneous absorption

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

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for higher concentrations or long-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 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.

SECTION 9: Physical and chemical properties

Form:	liquid
Colour:	yellow, clear
Odour:	fish-like
Odour threshold:	Not determined since harmful by inhalation.
pH value:	approx. 5.5 - 7.5 (20 °C)
Freezing point:	approx. -7 °C Information applies to the solvent.
Boiling point:	approx. 291 °C Information applies to the solvent.
Flash point:	128 °C (Directive 92/69/EEC, A.9)
Evaporation rate:	not applicable
Flammability (solid/gas):	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.

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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:	approx. 375 °C (Directive 92/69/EEC, A.15)
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Explosion hazard:	not explosive (Directive 92/69/EEC, A.14)
Fire promoting properties:	not fire-propagating (Directive 2004/73/EC, A.21)
Vapour pressure:	approx. 1 hPa (20 °C) Information applies to the solvent.
Density:	approx. 0.99 g/cm ³ (20 °C)
Relative vapour density (air):	not applicable
Solubility in water:	soluble
Partitioning coefficient n-octanol/water (log Pow):	not applicable
Viscosity, dynamic:	approx. 82 mPa.s (20 °C, 100 1/s)
Viscosity, kinematic:	approx. 35 mm ² /s (40 °C)
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.

SECTION 10: Stability and reactivity

Conditions to avoid:	See SDS section 7 - Handling and storage.
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
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.

SECTION 11: Toxicological Information

Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Of moderate toxicity after short-term inhalation.

Experimental/calculated data:

LD50 rat (oral): > 2,000 mg/kg (OECD Guideline 423)

No mortality was observed.

LC50 rat (by inhalation): > 2.4 - < 5.4 mg/l 4 h (OECD Guideline 403)

An aerosol was tested.

LD50 rat (dermal): > 5,000 mg/kg (OECD Guideline 402)

No mortality was observed.

Irritation

Assessment of irritating effects:

Skin contact causes irritation. May cause slight irritation to the eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: (OECD Guideline 404)

Serious eye damage/irritation rabbit: (OECD Guidelines 437/492 (BCOP/EpiOcular))

Respiratory/Skin sensitization

Assessment of sensitization:

Sensitization after skin contact possible. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 1H-1,2,4-Triazole-1-ethanol, α -[4-(4-chlorophenoxy)-2-(trifluoromethyl)phenyl]- α -methyl-

Experimental/calculated data:

Guinea pig maximization 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.

Information on: N,N-Dimethyldecan-1-amide

Assessment of teratogenicity:

The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: 2-pyrrolidone

Assessment of teratogenicity:

Causes developmental effects in animals at high, maternally toxic doses.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

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: 1H-1,2,4-Triazole-1-ethanol, α -[4-(4-chlorophenoxy)-2-(trifluoromethyl)phenyl]- α -methyl-
Assessment of repeated dose toxicity:

Repeated oral exposure to large quantities may affect certain organs. Liver Based on available data, the classification criteria are not met.

Information on: N,N-Dimethyldecan-1-amide

Assessment of repeated dose toxicity:

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. After repeated exposure the prominent effect is local irritation.

Information on: 2-pyrrolidone

Assessment of repeated dose toxicity:

The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.

Aspiration hazard

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

No aspiration hazard expected.

Other relevant toxicity information

Misuse can be harmful to health.

SECTION 12: Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Toxicity to fish:

LC50 (96 h) 0.52 mg/l, *Oncorhynchus mykiss* (static)

Aquatic invertebrates:

EC50 (48 h) 1.8 mg/l, *Daphnia magna*

Aquatic plants:

EC50 (72 h) 8.45 mg/l (growth rate), *Pseudokirchneriella subcapitata*

Information on: 1H-1,2,4-Triazole-1-ethanol, α -[4-(4-chlorophenoxy)-2-(trifluoromethyl)phenyl]- α -methyl-
Chronic toxicity to fish:

No observed effect concentration (36 d) 0.027 mg/l, *Brachydanio rerio*

Information on: 1H-1,2,4-Triazole-1-ethanol, α -[4-(4-chlorophenoxy)-2-(trifluoromethyl)phenyl]- α -methyl-; Revysol Fungicide

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (21 d), 0.01 mg/l, Daphnia magna
EC10 (21 d), 0.0175 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: 1H-1,2,4-Triazole-1-ethanol, α -[4-(4-chlorophenoxy)-2-(trifluoromethyl)phenyl]- α -methyl-

Assessment transport between environmental compartments:

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

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: 1H-1,2,4-Triazole-1-ethanol, α -[4-(4-chlorophenoxy)-2-(trifluoromethyl)phenyl]- α -methyl-

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: 1H-1,2,4-Triazole-1-ethanol, α -[4-(4-chlorophenoxy)-2-(trifluoromethyl)phenyl]- α -methyl-

Bioaccumulation potential:

Bioconcentration factor: 385

Does not accumulate in organisms.

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

SECTION 13: Disposal considerations

Container:

Triple rinse empty container and add residue to the spray tank. Recycle through Agrecovery (0800 247 326, www.agrecovery.co.nz). DO NOT reuse the container for any other purpose.

Contaminated packaging:

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

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Product:

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

SECTION 14: Transport information

Commercial transport:

Packing group:	III
ID number:	UN 3082
Transport hazard class(es):	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains TRIAZOLE DERIVATIVE, SOLVENT NAPHTHA)
Hazchem Code:	3[Z]
IERG Number:	47

Public transport: DO NOT carry this product on a passenger service vehicle.

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)

SECTION 15: Regulatory information

For the user of this plant-protective product:

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

NZ Regulations

Approved pursuant to the HSNO Act 1996, Code HSR101534.

See www.epa.govt.nz for approval conditions.

Registered pursuant to the ACVM Act 1997, Nos. P009923.

See www.foodsafety.govt.nz/acvm for registration conditions.

Qualifications required: any person mixing, loading, or handling this product must be a qualified person. Refer to the product label for handling precautions and directions for use.

Certified Handler: not required

Tracking: not required

Record keeping: records of use must be kept if more than 3 kg is applied within 24 hours.

NOTE: Storage, application and record keeping must be as described in the current version of the New Zealand Standard for the Management of Agrichemicals NZS8409.

SECTION 16: Other information

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.

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