

Safety data sheet

BASF Safety Data Sheet
Date / Revised: 07.09.2021
Product: **ACROBAT® MZ690**

(ID no. 30279358/SDS_CPA_NZ/EN; Version 3.0)

1. Identification of the substance/mixture and of the company/undertaking

Product identifier

ACROBAT® MZ690

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

Relevant identified uses: crop protection product, herbicide.

Details of the supplier of the safety data sheet

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

Emergency telephone number

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)

2. Hazards Identification

Hazard Classification: 6.3A, 6.4A, 6.5B, 6.9B, 9.1A



Signal word: WARNING

Hazard statements:

(Skin Irrit. 2)	H315: Causes skin irritation.
(Eye Irrit. 2)	H319: Causes serious eye irritation.
(Skin Sens. 1)	H317: May cause an allergic skin reaction.
(STOT Rep. Exp. 2)	H373: May cause liver damage from repeated oral exposure at high doses.
(Aquatic Chronic 1)	H410: Very toxic to aquatic life with long lasting effects.

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

Precautionary statements (Prevention):

Wash hands and exposed skin thoroughly after handling. Wash contaminated clothing before reuse. When mixing and preparing spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, suitable gloves, and safety goggles. Contaminated work clothing should not be allowed out of the workplace. Do not breathe dust/mist/spray.

Precautionary statements (Response):

IF SWALLOWED: DO NOT induce vomiting. For advice, contact the National Poisons Centre 0800 POISONS (0800 764 766) or a doctor immediately. IF ON SKIN (or hair): remove contaminated clothing and wash with plenty of soap and water. DO NOT scrub skin. If skin irritation or rash occurs, get medical advice/attention. IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. IF INHALED: remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell. Collect spillage.

3. Composition/Information on Ingredients

Mixtures

Chemical nature

crop protection product, fungicide, water dispersible granules

Hazardous ingredients

Dimethomorph

Content (W/W): 9.2 %
CAS Number: 110488-70-5
EC-Number: 404-200-2
INDEX-Number: 613-102-00-0
Hazard symbol(s): N
R-phrases: 51/53

Mancozeb

Content (W/W): 60 %
CAS Number: 8018-01-7
Hazard symbol(s): Xn, N
R-phrases: 43, 63, 50

Sodium dodecyl sulphate

Content (W/W): < 2 %
CAS Number: 151-21-3
EC-Number: 205-788-1
Hazard symbol(s): F, Xn
R-phrases: 41, 11, 37/38, 20/22

Ammonium sulphate

Content (W/W): < 10 %
CAS Number: 7783-20-2
EC-Number: 231-984-1

The wording of the hazard symbols and R-phrases is specified in section 16 if dangerous ingredients are mentioned.

4. First-Aid Measures

4.1 Description of first aid measures

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).

General advice:

Remove contaminated clothing.

If inhaled:

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

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.

On ingestion:

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

4.2. 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. Further important symptoms and effects are so far not known.

4.3. Indication of any immediate medical attention and special treatment needed

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

5. Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray, foam, dry powder.

Unsuitable extinguishing media for safety reasons:

Carbon dioxide

5.2. Special hazards arising from the substance or mixture

Sulphur dioxide, hydrogen sulphide, carbon monoxide, hydrogen chloride, carbon disulphide, Carbon dioxide, nitrogen oxides, organochloric compounds.

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

5.3. Advice for fire-fighters

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

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with the skin, eyes, and clothing. Use personal protective clothing. Avoid dust formation.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

For small amounts: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up.

Avoid raising dust. 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.

6.4 Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage

7.1 Precautions for safe handling

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. Remove contaminated clothing and protective equipment before entering eating areas.

Protection against fire and explosion:

Protection against fire and explosion:

Avoid dust formation. Dust can form an explosive mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

7.2 Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

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

AGGREGATE STORAGE VOLUME THRESHOLDS: When stored with substances of the same hazard the aggregate quantity must be considered. For full details refer to the current standard NZS8409 Management of Agrichemicals or the HSNO Regulations.						
Location Certificate*:	Hazardous Atmosphere Zone*:	Fire Extinguishers:	Signage [Hazard Class & Emergency Action]:	Emergency Information:	Emergency Response Plan:	Secondary Containment:
NA	NA	NA	100 kg	1 kg	100 kg	100 kg
* Note: Farms \geq 4 ha are exempt but with controls						
DO NOT STORE OR LOAD WITH: Class 1 Explosive			SEGREGATE FROM: Foodstuffs and Food Containers			
Segregation: In store separate by at least 5 metres, on transport separate by at least 3 metres, in both cases horizontally. On vehicles a segregation device may be used: Check the Land Transport Rule Dangerous Goods, Rule 45001 for additional information. Sea transport may require additional segregation. Refer to NZS5433 Sea Segregation for details.						

Storage stability:

Storage duration: 36 Months

Keep container tightly closed and dry.

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: 30 °C

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

Qualification requirements:

The person mixing or applying this product must be a Qualified Person.

Certified handler:

Not required

Tracking:

Not required

Record keeping:

Records of use must be kept if 3 litres or more of the substance 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.

7.3 Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Components with workplace control parameters

mancozeb, 8018-01-7;

TWA value 1 mg/m³ (OEL (NZ)), dust

Measured as: manganese (Mn)

8.2 Exposure controls

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for higher concentrations or long-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2).

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) and other.

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.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Form:	solid, granules
Colour:	beige
Odour:	faint odour, smoky
pH value:	approx. 6 – 8 (water, 1 %(m), 20 °C) (as a dispersion)
Melting temperature:	approx. 192 °C (the data given are those of the active ingredient)
Boiling temperature:	The product is a non-volatile solid.
Flash point:	not applicable
Flammability:	not highly flammable (Directive 84/449/EEC, A.10)
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.
Self-ignition:	not self-igniting (Method: Directive 92/69/EEC, A.16)
Explosion hazard:	Based on the chemical structure there is no indicating of explosive properties. (Directive 92/69/EEC, A.14)
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.
Vapour pressure:	The product has not been tested.
Bulk density:	approx. 1.85 g/cm ³ (20 °C) (OECD Guideline 109)
Relative vapour density (air):	not applicable
Solubility in water:	dispersible

Information on: Dimethomorph

Partitioning coefficient n-octanol/water (log K_{ow}): 2.63 - 2.73 (20 °C)

Information on: Mancozeb

Partitioning coefficient n-octanol/water (log K_{ow}): 0.26 (20 °C)

Viscosity, dynamic:	not applicable, the product is solid
Thermal decomposition:	100 °C, 30 kJ/kg (DSC (OECD 113)) (onset temperature) 190 °C, 150 kJ/kg (DSC (OECD 113)) (onset temperature) Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

9.2 Other information

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

10.1 Reactivity

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

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

See SDS section 7 - Handling and storage.

10.5 Incompatible materials

Substances to avoid:

Strong acids, strong bases, strong oxidizing agents.

10.6 Hazardous decomposition products

Hazardous decomposition products:

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

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

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

Experimental/calculated data:

LD50 rat (oral): 2,770 mg/kg (OECD Guideline 401)

LC50 rat (by inhalation): > 6.4 mg/l 4 h

Mortality was observed. Tested as dust aerosol.

LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)

Irritation

Assessment of irritating effects:

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

Experimental/calculated data:

Primary skin irritation rabbit: non-irritant (OECD Guideline 404)

Primary irritations of the mucous membrane rabbit: non-irritant (OECD Guideline 405)

Assessment other acute effects

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.

Sensitization

Assessment of sensitization:

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

Experimental/calculated data:

Modified Buehler test guinea pig: Caused skin sensitization in animal studies.

Repeated dose toxicity

Assessment of repeated dose toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components. No substance-specific organotoxicity was observed after repeated administration to animals.

Genetic toxicity

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.

Information on: MANCOZEB

Assessment of carcinogenicity:

In long-term studies in rats the substance induced thyroid tumors.

Reproductive toxicity

Assessment of reproduction toxicity:

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

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: MANCOZEB

Assessment of teratogenicity:

EU-classification Possible risk of harm to the unborn child.

Information on: sodium dodecyl sulphate

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.

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

12.1 Toxicity

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) 1.48 mg/l, *Oncorhynchus mykiss*

Aquatic invertebrates:

EC50 (48 h) 0.83 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

Aquatic plants:

EC50 (72 h) 0.136 mg/l, *Selenastrum capricornutum*

No observed effect concentration (72 h) 0.0173 mg/l, *Pseudokirchneriella subcapitata*

Chronic toxicity to fish:

No observed effect concentration (28 d) 0.528 mg/l, *Oncorhynchus mykiss*

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (21 d), 0.0637 mg/l, *Daphnia magna*

12.2 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: Dimethomorph

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

Information on: MANCOZEB

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

12.3 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: Dimethomorph

Bioaccumulation potential:

No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

Information on: MANCOZEB

Bioaccumulation potential:

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

12.4 Mobility in soil (and other compartments if available)

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: Mancozeb

Assessment transport between environmental compartments:

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

Information on: Dimethomorph

Assessment transport between environmental compartments:

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

12.5 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.

12.6 Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.7 Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

13. Disposal Considerations

Container:

Empty bag completely into the spray tank. Crush and bury in suitable landfill.

Contaminated packaging:

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

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.

13.1. Waste treatment methods

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

14. Transport Information

Commercial transport:

Classified as Dangerous Goods for Land/rail (ADR/RID), sea (IMDG/GGVSee) and air transport (ICAO/IATA):

UN number:	UN 3077
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains MANCOZEB, DIMETHOMORPH)
Transport hazard class(es):	9, EHSM
Packing group:	III
Marine pollutant:	YES
HAZCHEM:	2[Z]

15. Regulatory Information

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

For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)

15.2 Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

NZ Regulations

Approved pursuant to the HSNO Act 1996, Code HSR000531.
See www.epa.govt.nz for approval conditions.

Registered pursuant to the ACVM Act 1997, Nos. P003971.
See www.foodsafety.govt.nz/acvm for registration conditions.

16. Other Information

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

Full text of hazard symbols and R-phrases if mentioned as hazardous components in section 3:

Xn	Harmful.
N	Dangerous for the environment.
F	Highly flammable.
43	May cause sensitization by skin contact.
63	Possible risk of harm to the unborn child.
50	Very toxic to aquatic organisms.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
41	Risk of serious damage to eyes.
11	Highly flammable.
37/38	Irritating to respiratory system and skin.
20/22	Harmful by inhalation and if swallowed.

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. The data do not describe the products properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. 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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