



SAFETY DATA SHEET

RODEO MZ 680 WG

SDS/GHS/Isr/v1.1

Issue Date: 24.11.2021

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

Product identifiers

Product name: RODEO MZ 680 WG
Chemical name: Mancozeb and Metalaxyl-M
CAS Nos.: 8018-01-7 / 70630-17-0

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

Identified uses: Fungicide for agricultural use

Details of the supplier of the safety data sheet

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Switzerland
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Formulation site: Agria SA
Assenovgradsko shosse,
4009 Plovdiv, Bulgaria

Emergency telephone number

Tel: +44 20 8995 8391 (SDS support, 9.00-5.00 pm; Mon-Fri, UK)

SECTION 2. HAZARDS IDENTIFICATION

Eye Irrit. 2
Repr 2
Aq. acute 1

Classification and Label Elements:



Pictogram(s):

Signal word:

Warning

Hazard statement(s):

H319: Causes serious eye irritation
H361d: Suspected of damaging the unborn child
H400: Very toxic to aquatic life

Precautionary statement(s):

P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/ eye protection/ face protection.
P301+P312: IF SWALLOWED: call a POISON CENTER or doctor 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.
P501: Dispose of contents/container in accordance with local and national regulations

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS N°	Conc. (g/kg)	Signal word	H Statement(s)
Mancozeb	8018-01-7	640	Warning	H317, H361d, H400
Metalaxyl-M	70630-17-0	40	Danger	H302, H318

SECTION 4. FIRST AID MEASURES

Inhalation: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

Skin contact: Wash with plenty of water. Wash contaminated clothing before reuse. IF SKIN irritation occurs: Get medical advice/attention. Call a POISON CENTER or doctor if you feel unwell

Eye contact: 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.

Ingestion: If swallowed seek medical advice immediately and show the container, label or this Data sheet, if possible. Provided the patient is conscious, wash out mouth with water. Do not induce vomiting.

Medical Advice: There is no specific antidote, treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

Extinguishing media: Water spray. Keep unexposed containers cool with water spray. Water jet is not recommended.

Specific Hazards from the product: Combustion products are toxic and/or irritant. May produce toxic gases: NO_x, CO_x, CN.

Advice for fire fighters: Fire-fighters should wear full protective gear, including self-contained breathing apparatus. Use water spray to cool containers.

Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire control water or other extinguishing agent and spillage safely.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear PPE as recommended in section 8. Avoid breathing dust. Ensure adequate ventilation. Avoid contact with spilled material or contaminated surfaces. Keep people and animals away and keep locked up.

Environmental precautions: Prevent product from entering drains or water courses. Do not flush into water sources, drains or sewage systems. If product enters sewage or contaminates water sources, inform the relevant authorities.



Clean-up methods: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Wash the spillage area with water and adsorb onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Contaminated extinguishing water must be disposed of in accordance with official regulations.

SECTION 7. HANDLING AND STORAGE

Handling: Use PPE as outlined in section 8. Avoid contact with skin, eyes and clothing. May irritate skin. Avoid breathing vapour or spray. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

Storage: Keep out of sight and reach of children Store in the closed original container, in a cool, dry, well-ventilated area, away from direct sunlight and sources of ignition. Keep away from food, drink and animal feeds. Avoid storing at freezing temperatures.

Incompatibility: None known.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure limits:

Hazardous ingredient: Mancozeb: 1 mg/m³ TWA 8h
Metalaxyl-M: 10 mg/m³ TWA 8h

Exposure controls: Use only in well-ventilated areas. If necessary, use local exhaust ventilation to keep airborne concentration below exposure limits.

Personal protective equipment:

Eye/face protection: Wear face shield or goggles.

Skin/hand protection: Wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat, heavy-duty shoes or boots. Chemical resistant gloves should be used. Suitable materials include: nitrile rubber.

Respiratory protection: If working in a poorly ventilated area or if occupational exposure levels are likely to be exceeded, wear a type FFP2 (EU EN 149) respirator cartridges

Wash hands and exposed skin before meals and after work.
Wash all protective clothing thoroughly after use, especially the inside of gloves.
When using do not eat, drink or smoke.
Keep away from food, drink and animal feed stuffs.
Keep out of the sight and reach of children.

SECTION 9. PHYSICAL / CHEMICAL PROPERTIES

a) Appearance: Yellow to brownish granules



b)	Odour:	Slightly sulphurous, weak
c)	Melting point/freezing point:	not applicable
d)	Boiling point/boiling range:	Decomposes before boiling
e)	Flash point:	Does not flash
f)	Flammability (solid/gas):	Not flammable
g)	Vapour pressure:	<0.01 mPa (25°C) (<i>Mancozeb tech.</i>) 3.3 x 10 ⁻³ Pa (25°C) (<i>Metalaxyl-M tech.</i>)
h)	Vapour density:	5.9 x 10 ⁻⁴ Pa x m ³ x mol ⁻¹ (<i>Mancozeb tech.</i>) 3.5 x 10 ⁻⁵ Pa x m ³ x mol ⁻¹ (<i>Metalaxyl-m tech.</i>)
i)	Relative density:	0.45 – 0.65 g/cm ³
j)	Solubility:	miscible in water
k)	Partition coefficient:	Log P _{ow} 1.33 (<i>Mancozeb tech.</i>) Log P _{ow} 1.71 (<i>Metalaxyl-M tech.</i>)
l)	Viscosity:	Not applicable (solid)
m)	Explosive properties:	Not explosive
n)	Oxidising properties:	Not an oxidiser

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Corrosion to metals: Corrosive effects to metal are not anticipated.
Chemical stability	The product is stable if stored and handled as prescribed/indicated.
Possibility of hazardous reactions	No hazardous reactions when stored and handled according to instructions.
Conditions to avoid	Avoid conditions which lead to the formation of dusts
Incompatible materials	Strong oxidising agents
Hazardous decomposition products	Carbon disulphide, hydrogen sulphide.

SECTION 11. TOXICOLOGICAL INFORMATION

Oral toxicity:	LD ₅₀ rat: >2000-5000 mg/kg (GHS Cat 5)
Dermal toxicity:	LD ₅₀ rat: >2000-5000 mg/kg (GHS Cat 5)
Inhalation toxicity:	>5.04 mg/L (rat, 4 h)
Skin irritation:	Non-irritant
Eye irritation:	Causes eye irritation
Skin sensitisation:	Not a skin sensitiser

Mancozeb

Assessment of reproduction toxicity: The results of animal studies gave no indication of an effects on fertility

Assessment of teratogenicity: Possible risk of harm to the unborn child. At very high maternally toxic levels, mancozeb has caused birth defects in laboratory animals.

Assessment of carcinogenicity: Not classified as carcinogenic.

Assessment of mutagenicity: Mutagenicity tests revealed no genotoxic potential

Metalaxyl-M

Not classified as a carcinogen, teratogen, mutagen or genotoxic.

SECTION 12. ECOLOGICAL INFORMATION



(based on comparable formulation)

Fish toxicity:	LC ₅₀ 96 h Cyprinus carpio (Carp)	23 mg/L
Daphnia toxicity:	EC ₅₀ 48 h <i>Daphnia magna</i>	0.8 mg/L
Algal toxicity:	EC ₅₀ Green algae 72 h	0.093 mg/L

Mancozeb and *Metalaxyl-M* are not persistent in soil or water

Mobility in soil: *Mancozeb* has low mobility
Metalaxyl-M has low to high mobility

SECTION 13. DISPOSAL CONSIDERATIONS

Do not contaminate ponds, waterways or ditches with chemical or used containers. Empty containers should be triple-washed and discarded. Empty containers should not be used for other purposes. Disposal should be in accordance with local, state or national legislation.

SECTION 14. TRANSPORTATION INFORMATION

UN number: 3077

UN Proper Shipping Name: Environmentally hazardous substance, solid, N.O.S.
(contains Mancozeb)

Transport hazard class: ADR/RID: 9 IMDG: 9 IATA: 9

Packaging group: ADR/RID: III IMDG: III IATA: III

Environmental hazard: ADR/RID: Yes IMDG: Marine pollutant: Yes IATA: Yes

SECTION 15. REGULATORY INFORMATION

No additional regulatory information.

SECTION 16. OTHER INFORMATION

H-statements:

- H302 May be harmful if swallowed
- H317 May cause allergic skin reaction
- H318 Causes serious eye damage
- H319 Causes serious eye irritation
- H361d Suspected of damaging the unborn child
- H400 Very toxic to aquatic life

Time weighted average (TWA) is the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

No liability is accepted for any injury, loss, damage or cost arising directly or indirectly from the use of the product or from the use of information contained within the safety data sheet since the customer's treatment of the product is necessarily beyond our control. The supplied data are based on current knowledge and experience. This safety data sheet is intended to describe our product in terms of safety requirements. The customer should determine by appropriate trials that the product is suitable for his intended use.

Sections 9, 11 and 12 based on available EU and own data.