

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name. : VALBON
Product code : KI 008 C1064
Type of formulation : Water dispersible (WG)
Active Ingredient : Mancozeb

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

2.1. Relevant identified uses

Main use category : Plant protection product for professional use. Agriculture.
Use of the substance/mixture : Fungicide.

1.2.2. Uses advised against

No additional information available.

1.3. Details of the supplier of the safety data sheet

Supplier:

Kumiai Chemical Industry Co., Ltd.
Product Development & Technical Service Section
Overseas Department
1-4-26, Ikenohata, Taitoh-ku, Tokyo 110-8782,
Japan

Distributor:

CERTIS UK
Suite 5, 3 Riverside
Granta Park
Great Abington
Cambridgeshire CB21 6AD
United Kingdom
Tel: +44 (0)845 373 0305
Fax: +44 (0)1223 891210
Email: certis@certiseurope.co.uk
Website: www.certiseurope.co.uk

1.4. Emergency telephone number

Emergency number : Certis Carechem24 multilingual 24 hours emergency number: +44 (0) 870 190 6777.
For further advice for medical professionals:
The National Poisons Information Service: +44 (0) 870 600 6266.
For further advice for veterinary surgeons: +44 (0) 20 7635 9195
Dublin - National Poisons Information Centre, Beaumont Hospital, Dublin 9:
Available from 8 am to 10 pm - 7 days: +353 (01) 809 2166
Available 24hrs: +353 (01) 809 2566

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Sens. 1 H317

Carc. 2 H351

Repr. 2 H361

Aquatic Acute 1 H400

Full text of H-phrases: see section 16

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Warning

Hazard statements (CLP)

: H317 - May cause an allergic skin reaction.
H351 - Suspected of causing cancer.
H361 - Suspected of damaging fertility or the unborn child.
H400 - Very toxic to aquatic life.

Precautionary statements (CLP)

: P101 - If medical advice is needed, have product container or label at hand.
P103 - Read label before use.
P260 - Do not breathe spray.
P263 - Avoid contact during pregnancy/while nursing.
P273 - Avoid release to the environment.
P281 - Use personal protective equipment as required.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

EUH phrases

: EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixture

Name	Product identifier	% (w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Mancozeb	(CAS No) 8018-01-7 (EC index no) 0060-076-00-1	>= 50	Skin Sens. 1, H317 Repr. 2, H361 Aquatic Acute 1, H400
Benthiavalicarb-isopropyl	(CAS No) 177406-68-7 (EC no) - (EC index no) -	< 5	Skin Sens. 1, H317 Carc. 2, H351

Full text of H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : In the event of any complaints or symptoms, avoid further exposure.
- First-aid measures after inhalation : IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing
If symptoms persist call a doctor.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water
Remove contaminated clothing and shoes
If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Consult an eye specialist.
- First-aid measures after ingestion : IF SWALLOWED: Immediately call a POISON CENTER or doctor
Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms after ingestion : After gavage to rats, no clinical signs of toxicity were observed throughout the 14-day observation period.
- Symptoms after skin contact : After intradermal injection in the guinea-pig, erythema, eschar and desquamation of the epidermis were observed.
- Symptoms after inhalation : After 4-hour inhalation exposure of rats, there were no clinical signs attributed to the test article.
- Symptoms after eye contact : After instillation in eyes of rabbits, a single instillation elicited conjunctival irritation, which did not exceed a diffuse crimson colour in the sentinel rabbit, injection of the blood vasculature in the main study rabbits, swelling with partial eversion of the eyelids and some slight discharge were seen in all animals. All irritation reactions had resolved by four or five days after dosing.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray
Dry chemical powder
Alcohol resistant foam
Carbon dioxide (CO₂).

Unsuitable extinguishing media : Jet of water.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustion or thermal decomposition may generate toxic vapours.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire.
Fight fire from safe distance and protected location.
Do not breathe fumes.
Cool closed containers exposed to fire with water spray
If possible, take the containers out of dangerous zone.
Contain fire-fighting water with dikes or absorbents to prevent migration and entry into sewers or streams.

Protection during firefighting : Wear suitable protective clothing, gloves, eye/face protection and respiratory protection.
Wear a self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection.

Emergency procedures : Evacuate area.
Ensure adequate ventilation.
Avoid direct contact with the substance.
Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.2. Environmental precautions

Prevent entry to sewers and public waters.
Notify the authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.
Once absorbed collect spilled material with shovels, buckets and place in closed containers and label properly.
Remove as chemical waste, according to national or local legislation.
In the event of major spillage: contact an expert.

6.4. Reference to other sections

See sections 7-8-13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Read label before use.
- Do not handle until all safety precautions have been read and understood.
 - Avoid contact with eyes, skin, nose and mouth.
 - Avoid breathing dust, mist or spray.
 - Avoid contact during pregnancy/while nursing.
 - Wear suitable protective clothing, gloves and eye or face protection.
 - Opened containers must be carefully closed and kept upright to avoid leakage.
- Hygiene measures : Always wash your hands immediately after handling this product, and once again before leaving the workplace.
- Contaminated work clothing should not be allowed out of the workplace.
 - Do not eat, drink or smoke when using this product.
 - Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep in original containers, tightly closed.
- Store in a dry, cool and well-ventilated place.
 - Keep away from heat and direct sunlight.
 - Store locked up.
 - Keep away from combustible material.
 - Keep away from food, drink and animal feedingstuffs.
 - Keep locked up and out of the reach of children.
- Maximum storage period : 2 years.

7.3. Specific end use(s)

Fungicide for agricultural use. Refer to the label.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Mean exposure limit value of dusts = 10 mg/m³.

8.2. Exposure controls

- Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Hand protection : Wear impervious gloves resistant to chemical. Nitrile rubber.
- Eye protection : Safety goggles or a face shield.
- Skin and body protection : Protective clothing with long sleeves waterproof and resistant to chemicals. Rubber boots.
- Respiratory protection : Wear appropriate respirator for dust / organic vapors.

Hygiene measures	: Do not eat, drink or smoke while handling the product. Clean gloves with soap and water before removing. Wash hands and face with soap and water before eating, drinking or smoking. Clean equipment, premises and work clothes regularly. Work clothing should remain on the work area and stored separately from street clothes.
Environmental exposure controls	: Discharge into the environment must be avoided. Do not contaminate surface and groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid (free-flowing microgranules)
Colour	: Olive to yellowish brown.
Odour	: wood.
pH	: 7.2
pH solution	: 1%
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable (WG formulation)
Freezing point	: Not applicable (WG formulation)
Boiling point	: Not applicable (WG formulation)
Flash point	: Not highly flammable.
Self ignition temperature	: 159 °C
Vapour pressure	: Not applicable (WG formulation)
Relative density	: Not applicable (WG formulation)
Density	: 0.61 - 0.68 g/cm ³
Solubility	: Not applicable (WG formulation)
Log Pow	: Not applicable (WG formulation)
Viscosity, kinematic	: Not applicable (WG formulation)
Viscosity, dynamic	: Not applicable (WG formulation)
Explosive properties	: No explosive properties.
Oxidising properties	: No oxidising properties.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactivity with packaging material after two-year storage at ambient temperature and after accelerated storage at 54°C for 14 days.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Avoid elevated temperatures, moisture and oxygen, which break down the product and induce flammable and toxic gas.

10.5. Incompatible materials

Avoid strong oxidizing agents, strong acids, quaternary ammonium salts, sequestering agents.

10.6. Hazardous decomposition products

Combustion or thermal decomposition may generate toxic vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

VALBON	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat	> 5.15 mg/l/4h

Skin Irritation : Non skin irritant (rabbit)
 Eye Irritation : Mild eye irritant (rabbit)
 Corrosivity : Non corrosive (rabbit)
 Sensitisation : Skin sensitizer (guinea pigs)
 Repeated dose toxicity : Not classified
 Carcinogenicity : Limited evidence of a carcinogenic effect.

Benthiavalicarb-isopropyl (177406-68-7)	
Carcinogenicity (rat)	Uterine adenocarcinoma (2years)
Carcinogenicity (mouse)	Hepatocellular blastoma and carcinoma, thyroid follicular cell adenoma (2years)

Mancozeb (8018-01-7)	
Carcinogenicity (rat)	Thyroid adenomas and carcinomas at high doses (2yers)

Mutagenicity : Not classified

Benthiavalicarb-isopropyl (177406-68-7)	
Mutagenicity	No mutagenic potential.

Mancozeb (8018-01-7)	
Mutagenicity	No mutagenic potential.

Toxicity for reproduction : Possible risk of harm to the unborn child.

Benthiavalicarb-isopropyl (177406-68-7)	
Toxicity for reproduction	No reproductive toxicant.

Mancozeb (8018-01-7)	
Toxicity for reproduction	Malformations at high doses in rats; embryo-/fetotoxicity (delayed ossification, abortions) at lower maternally toxic doses in rats and rabbits.

SECTION 12: Ecological information

Toxicity for reproduction : Possible risk of harm to the unborn child.

12.1. Toxicity

VALBON	
LC50 Fishes (<i>Oncorhynchus mykiss</i>)	< 1 mg/l (96h)
EC50 Daphnia	< 1 mg/l (48h)
ErC50 Algae (<i>Selenastrum capricornutum</i>)	> 1 mg/l (72h)
LD50 oral Honey bee (<i>Apis mellifera</i>)	>100 µg a.s./bee

VALBON	
LD50 dermal Honey bee (<i>Apis mellifera</i>)	>100 µg a.s./bee
LC50 earthworm (<i>Eisenia foetida</i>)	910.7 mg/kg

12.2. Persistence and degradability

Not readily biodegradable.

Benthiavalicarb-isopropyl (177406-68-7)	
DT50 soil	11-19 days (Laboratory study, aerobic, 20°C)
DT50 air	2.334 hours (Atkinson method of calculation)
DT50 water/sediment	15-18 days (Laboratory study)

Mancozeb (8018-01-7)

DT50 soil	1-3 hours (Laboratory study, aerobic, 20°C)
DT50 water	0.6 – 14.4 hours (Laboratory study, 20°C)

12.3. Bioaccumulative potential

Not readily biodegradable.

12.4. Mobility in soil

Benthiavalicarb-isopropyl (177406-68-7)	
Adsorption values	K_{foc} 121-258
Desorption values	K_{foc} 167.5 - 390.2

Mancozeb (8018-01-7)

Adsorption values	K_{oc} 363-2334
Desorption values	K_d 7.26 – 11.67

12.5. Results of PBT and vPvB assessment

Not relevant.

12.6. Other adverse effects

No additional information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No. : 3077

UN-No.(IATA) : 3077

14.2. UN proper shipping name

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Mancozeb)

Transport document description : UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Mancozeb), 9, III

14.3. Transport hazard class(es)

Class (UN) : 9
Class (IATA) : 9 - Miscellaneous dangerous goods.
Hazard labels (UN) : 9



14.4. Packing group

Packing group (UN) : III

14.5. Environmental hazards

Dangerous for the environment :
Marine pollutant :



Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 90
Classification code (UN) : M7
Orange plates :



14.6.2. Transport by sea

EmS-No. (1) : F-A,S-F

14.6.3. Air transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions
Contains no REACH candidate substance

15.1.2. National regulations

No additional information available.

15.2. Chemical safety assessment

No additional information available.

SECTION 16: Other information

Full text of H- and EUH-phrases:

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Carc. 2	Carcinogenicity Category 2
Repr. 2	Reproductive toxicity Category 2
Skin Sens. 1	Skin sensitisation Category 1
H317	May cause an allergic skin reaction
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H400	Very toxic to aquatic life