CLAYTON PLANT PROTECTION

CLAYTON MOHAWK Safety Data Sheet according to Regulation (EU) No. 453/2010. Version 1/dsc 31/05/2017
This version replaces all previous versions

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

1.1. Product identifier CLAYTON MOHAWK MAPP18086
1.2. Relevant identified uses of the substance or mixture and uses advised. Fungicide
1.3. Details of the supplier of the safety data sheet : Marketing Company in UK
Clayton Plant Protection (UK) Ltd., Bracetown Business Park, Clonee, Dublin15. Ireland.
Tel: (00 353) 1 8210127 www.cpp.ag Email: info@cpp.ag

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) 1272/2008
Reproductive toxicity Category 2 H361d
skin sensitization Sub-category 1B H317
Acute aquatic toxicity Category 1 H400
Chronic aquatic toxicity Category 1 H410
For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements
Labelling: Regulation (EC) No. 1272/2008

Hazard pictograms

Signal Word : Warning
Hazard Statements :
H317 May cause an allergic skin reaction.
H361d Suspected of damaging the unborn child
H410 Very toxic to aquatic life with long lasting effects
Precautions Statements :
P102 Keep out of reach of children
P201 Obtain special instructions before use.
P280 Wear protective gloves/protective clothing
P302/352 IF ON SKIN: Wash with plenty of soap and water
P308/313 IF exposed or concerned: Get medical advice/ attention.
P391 Collect spillage
P501 Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty clean containers which can be disposed for as non-hazardous waste.
Supplemental Information :
EUH401 To avoid risks to human health and the environment comply with the instructions for use.

Hazardous components which must be listed on the label: • mancozeb
2.1 Other hazards May form flammable dust-air mixture.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures : Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration
mancozeb	8018-01-7	N, Xn R43 R50 R63	Repr.2; H361d Skin Sens.1; H317 Aquatic Acute1; H400	64 % w/w
metalaxyl-M	70630-17-0	Xn R22 R41	Acute Tox.4; H302 Eye Dam.1; H318	4 % w/w

Substances for which there are Community workplace exposure limits.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures
General Advice : Have the product container, label or Material Safety Data Sheet with you when calling an emergency number, a poison control centre or physician, or going for treatment.
Inhalation : Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Control Centre immediately.
Skin Contact : Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.
Eye Contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.
Ingestion : If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.
4.2 Most important symptoms and effects, both acute and delayed : Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed
Medical advice : There is no specific antidote available. Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media Extinguishing media - small fires Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Extinguishing media - large fires Use alcohol-resistant foam or water spray. Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health.

5.3 Advice for fire-fighters: Wear full protective clothing and self-contained breathing apparatus. Do not allow run-off from fire-fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures. Refer to protective measures listed in sections 7 and 8. Avoid dust formation.

6.2 Environmental precautions: Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up : Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13). Do not create a powder cloud by using a brush or compressed air. Clean contaminated surface thoroughly. If the product contaminates rivers and lakes or drains inform respective authorities.

6.4 Reference to other sections Refer to protective measures listed in sections 7 and 8. Refer to disposal considerations listed in section 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling Potential for spontaneous combustion. To avoid thermal decomposition, do not overheat. Avoid contact with skin and eyes. When using, do not eat, drink or smoke. For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities This material can be thermally unstable at elevated temperatures. The material is thermally stable at normal ambient temperatures as packaged. Store the material away from sources of heat such as steam pipes, radiators or heaters. Maintain an air gap between individual packages. Do not repack into larger volume packages. Do not bulk up in silos, storage bins or hoppers without considering the potential product degradation/decomposition problem. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. Storage temperature < 35 °C.

7.3 Specific end use(s) Registered Crop Protection products: For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	Exposure limit(s)	Type of exposure limit	Source
mancozeb	1 mg/m³	8 h TWA	SUPPLIER
metalaxyl-M	10 mg/m³	8 h TWA	SYNGENTA

8.2 Exposure controls : The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation and packaging of the product.

Engineering Measures : Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. If airborne dust is generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit. Where necessary, seek additional occupational hygiene advice.

Protective measures : The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

Respiratory protection : No personal respiratory protective equipment normally required. A particulate filter respirator may be necessary until effective technical measures are installed.

Hand protection : Chemical resistant gloves should be used. Gloves should be certified to an appropriate standard. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be changed when breakthrough is suspected. Suitable material: nitrile rubber.

Eye Protection : Eye protection is not usually required. Follow any site specific eye protection policies.

Skin and body protection : Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before reuse, or use disposable equipment (suits, aprons, sleeves, boots, etc.). Wear as appropriate: dust impervious protective suit.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical State : Solid Form : Granules Colour : Light yellow to light brown Odour : Weak Odour Threshold : No data available pH : 5.9 at 1 % w/v (aqueous suspension) Melting point/range : No data available Boiling point/boiling range : No data available Flash point : No data available Evaporation rate : No data available Flammability (solid, gas) : Not highly flammable Lower explosion limit : No data available	Upper explosion limit : No data available Vapour pressure : No data available Relative vapour density : No data available Density : No data available Solubility in other solvents : No data available Partition Coefficient n-octanol/water : No data available Autoignition temperature : 152 ºC Thermal decomposition : No data available Viscosity, dynamic : No data available Viscosity, kinematic : No data available Explosive properties : Not explosive Oxidizing properties : Not oxidising

9.2 Other information

Minimum ignition temperature : 340 °C Dust explosion class : Forms flammable dust clouds Minimum ignition energy : >1 J Bulk density : 0.45 – 0.65 g/cm³	Miscibility : miscible Surface tension : 57.8 mN/m at 20 °C Burning number : 1 at 20 °C 5 at 100 °C

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity : No information available
10.2 Chemical Stability : No information available
10.3 Possibility of hazardous reactions : Hazardous polymerisation does not occur. This material may degrade, decompose exothermically, and may even catch fire, when large quantities are exposed to elevated temperatures.
10.4 Conditions to avoid : No information available
10.5 Incompatible materials : No information available
10.6 Hazardous decomposition products : Combustion or thermal decomposition will evolve toxic and irritant vapours.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute oral toxicity : Median lethal dose male and female rat, > 5,000 mg/kg
Acute inhalational toxicity : Median lethal concentration male and female rat, > 5.13 mg/l 4 h
Acute dermal toxicity : LD50 male and female rat, > 5,000 mg/kg
Skin corrosion/irritation : Rabbit: Non-irritating
Serious eye damage/eye irritation : Rabbit: mildly irritating
Respiratory or skin sensitisation : Guinea pig: a skin sensitiser in animal tests
Germ cell mutagenicity mancozeb Did not show mutagenic effects in animal experiments.
metalaxyl-m : Did not show mutagenic effects in animal experiments.
Carcinogenicity mancozeb Did not show carcinogenic effects in animal experiments.
metalaxyl-m : Did not show carcinogenic effects in animal experiments.
Teratogenicity metalaxyl-m : Did not show teratogenic effects in animal experiments.
Reproductive toxicity mancozeb Suspected of damaging the unborn child.
metalaxyl-m : Did not show reproductive toxicity effects in animal experiments.
STOT – single exposure : May cause respiratory irritation
STOT – repeated exposure mancozeb No adverse effect has been observed in chronic toxicity tests.
metalaxyl-m : No adverse effect has been observed in chronic toxicity tests.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity Toxicity to fish : LC50 Cyprinus carpio (Carp), 23 mg/l, 96 h
Toxicity to aquatic invertebrates : EC50 Daphnia magna Straus, 0.8 mg/l, 48 h
Toxicity to aquatic plants : ErC50 Pseudokirchneriella subcapitata (green algae), 0.219 mg/l, 72 h NOErC
Pseudokirchneriella subcapitata (green algae), 0.031 mg/l, 72 h
12.2 Persistence and degradability
Biodegradability Metalaxyl-m Not readily biodegradable.
Stability in water mancozeb Degradation half life: 5.8 - 55 h. Not persistent in water
metalaxyl-M Degradation half life: 22.4 - 47.5 d. Not persistent in water
Stability in soil mancozeb : Degradation half life: 6 - 15 h. Not persistent in soil
metalaxyl-M Degradation half life: < 50 d. Not persistent in soil
12.3 Bioaccumulative potential Mancozeb : Does not bioaccumulate.
Metalaxyl-m : Low bioaccumulation potential
12.4 Mobility in soil Mancozeb : Low mobility in soil.
Metalaxyl-M : Has a range from very low to very high mobility in soil depending on soil type.
12.5 Results of PBT and vPvB assessment These substances are not considered to be persistent, bioaccumulating nor toxic (PBT). These substances are not considered to be very persistent nor very bioaccumulating (vPvB).
12.6 Other adverse effects : Other information : Classification of the product is based on the summation of the concentrations of classified components.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product : Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.
Contaminated packaging : Empty remaining contents. Triple rinse containers. Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

Land transport (ADR/RID)
14.1 UN Number : UN 3077
14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANCOZEB)
14.3 Transport hazard class(es) : 9
14.4 Packing Group ; III Labels : 9
14.5 Environmental hazards : Environmentally hazardous

Sea transport (IMDG)
14.1 UN Number : UN 3077
14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANCOZEB)
14.3 Transport hazard class(es) : 9
14.4 Packing Group ; III Labels : 9
14.5 Environmental hazards : Marine pollutant

Air transport (IATA-DGR)
14.1 UN Number : UN 3077
14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANCOZEB)
14.3 Transport hazard class(es) : 9
14.4 Packing Group ; III Labels : 9
14.6 Special precautions for user : none

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
GHS-Labelling

Hazard pictograms 

Signal Word : Warning
Hazard Statements : H317 May cause an allergic skin reaction. :
H361d Suspected of damaging the unborn child
H410 Very toxic to aquatic life with long lasting effects
Precautions Statements : P102 Keep out of reach of children
P201 Obtain special instructions before use.
P280 Wear protective gloves/protective clothing
P302/352 IF ON SKIN: Wash with plenty of soap and water
P308/313 IF exposed or concerned: Get medical advice/ attention.
P391 Collect spillage
P501 Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty clean containers which can be disposed for as non-hazardous waste.
Supplemental Information :
EUH401 To avoid risks to human health and the environment comply with the instructions for use.

Hazardous components which must be listed on the label: • Mancozeb
15.2 Chemical Safety Assessment A Chemical Safety Assessment is not required for this substance.

SECTION 16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H302 Harmful if swallowed	H361d Suspected of damaging the unborn child
H317 May cause an allergic skin reaction.	H400 Very toxic to aquatic life
H318 Causes serious eye damage	H410 Very toxic to aquatic life with long lasting effects

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.