SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) Annex II

CLAYTON ZEBO

Publish Date 13-June-2018

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

CLAYTON ZEBO

Pure substance/mixture Mixture

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

Recommended Use Fungicide
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier Address Clayton Plant Protection, Bracetown Business park, Clonee, Dublin 15, Ireland, Tel. +353 1 8014000

For further information, please contact dave@cpp.ag

Email address

1.4. Emergency telephone number National Chemical Emergency Centre (UK): Tel: 01865 407333 (24 hours)

Emergency Telephone

Section 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

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

Respiratory/skin sens.	Category 1 - (H317)
Reproductive toxicity	Category 2 - (H361d)
Hazardous to the Aquatic Environment	Category 1 - (H400)

Classification according to Directive 67/548/EEC or 1999/45/EC

Full text of R-phrases: see section 16

Repro cat.3, Dangerous for the environment R63, R43, Xn, R50, N

2.2. Label elements

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

Hazard pictograms

Signal word	Warning
Hazard Statements	H317 - May cause an allergic skin reaction H361d - Suspected of damaging the unborn child H400 - Very toxic to aquatic life
Precautionary Statements	P201 - Obtain special instructions before use P202 - Do not handle until all safety precautions have been read and understood P261 - Avoid breathing dust P273 - Avoid release to the environment P280 - Wear protective gloves/protective clothing/eye protection/face protection
EU Specific Hazard Statements	P302+P352 - IF ON SKIN: Wash with plenty of soap and water P308+P313 - IF exposed or concerned: Get medical advice/attention P405 - Store locked up P501 - Dispose of contents/container in accordance with local and national regulations
Additional phrases for PPP 2.3.	
Other hazards	Risk of dust explosion

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical Name	Weight-%	CAS No	EC No	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Classification according to 67/548/EEC
Mancozeb	75	8018-01-7	-	-	Repr. 2, H361d Skin Sens. 1, H317 Aquatic Acute 1, H400	Xn; Repr. Cat 3, N, R43, R63, R50
Inert ingredients	25	-	-	-	-	-

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

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice	Never give fluids or induce vomiting if patient is unconscious or is having convulsions.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, consult an opthalmologist.
Ingestion	Do not induce vomiting. Rinse mouth. Provided the patient is conscious, drink plenty of water. Consult a physician. The decision to induce vomiting should be made by a physician.

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

Skin Contact	There may be mild irritation at the site of contact
Eye Contact	There may be redness and irritation. Vision may be blurred.
Ingestion	There may be soreness and redness of the throat and mouth

4.3. Indication of any immediate medical attention and special treatment needed
Supportive care. Treatment symptomatic by a physician.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media
Water spray, Carbon Dioxide, Dry chemical powder, alcohol or polymer foam.

Unsuitable Extinguishing Media
Full water jet.

5.2. Special hazards arising from the substance or mixture

Combustion products such as hydrogen sulphide, carbon disulphide, nitrogen, sulphur and carbon oxides.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus
In the event of fire and/or explosion do not breathe fumes

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions
Use personal protective equipment as required.

For emergency responders
Use personal protection recommended in Section 8.

6.2. Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up
Take up mechanically, placing in appropriate containers for disposal. Do not use equipment which may produce sparks.

6.4. Reference to other sections

Other Information
See also section 8,13

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling
Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

General Hygiene Considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

7.3. Specific end use(s)

Must only be kept in original packaging

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.2. Exposure controls

Engineering Controls	Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Respiratory protection	Wear dual cartridge respirator for dust and mists. For most conditions, no respiratory equipment is needed. For emergency conditions use a pressure positive self contained breathing apparatus.
Hand/Skin Protection	Use chemical resistant gloves according to EN 374.Examples of these are nitrile, PVC or neoprene. When prolonged or repeated contact may occur, use a class 5 or higher glove. When prolonged use/contact with this material may occur, wear clothing impervious to this material. For emergency use use protective clothing impervious to this material.
Eye/face protection	Safety glasses for most operations. For dusty operations use chemical goggles.
Engineering controls	Use engineering controls to maintain airborne limits within guidelines. Local exhaust ventilation may be necessary for some operations.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Property		Values	Method	Remarks
Appearance				
Physical state	:	Granules		
Color	:	Green/yellow		
Odor	:	Sulphurous		
Odor threshold	:	No data available		
pH	:	No data available		
Melting point/freezing point °C	:	Decomposes 192°C		
Boiling point/boiling range °C	:	No data available		
Flash point °C	:	Not Applicable		
Evaporation rate	:	Not Applicable		
Flammability (solid, gas)	:	No data available		
Upper/lower flammability or	:	No data available		
explosive limits	:	No data available		
Vapor pressure kPa	:	Negligible		
Relative density	:	No data available		
Solubility in water	:	Dispersible		
Partition Coefficient	:	No data available		
(n-octanol/water) Log Pow	:	No data available		
Autoignition temperature °C	:	No data available		
Decomposition temperature °C	:	192°C - 204°C		
Kinematic viscosity mm2/s 40 °C	:	Not applicable		
Explosive properties	:	No data available :		
Oxidizing properties	:	No data available		

9.2. Other information

Bulk density g/ml	:	
Surface tension mN/m	:	Not applicable

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No dangerous reactions known under normal conditions of use

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Acids and moisture, excessive heat, open flames.

10.4. Conditions to avoid

Acids and moisture (in storage), heat, flames and sparks.

10.5. Incompatible materials

Acids

10.6. Hazardous decomposition products

Hydrogen sulphide, Carbon disulphide.

Section 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects

Acute toxicity

		Values	Species	Method	Remarks
Oral LD50 mg/kg	:	>5000	Rat	OECD 401	
Dermal LD50 mg/kg	:	>5000	Rabbit		
Inhalation LC50 mg/l/4h	:	>5.14	Rat		
Skin corrosion/irritation	:	Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	:	May cause eye irritation			
Respiratory/skin sensitization	:	Allergic skin reaction	Guinea pig	OECD 406	
	:	No respiratory sensitisation			

Chronic toxicity

Germ cell mutagenicity : Negative
Chemical Name
.

Carcinogenicity : Active causes cancer at high doses
Chemical Name

Reproductive toxicity .
Chemical Name : Not toxic for the reproductive system

STOT - single exposure : Available data suggests this is not an STOT-SE Toxicant
Chemical Name

STOT - repeated exposure : In animals, effects have been reported on: Thyroid, Liver.
Chemical Name

Aspiration hazard : Based on physical properties, not likely
Chemical Name

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Aquatic toxicity

Acute toxicity		Values	Species	Method	Remarks
Fish 96-hour LC50 mg/l	:	5.1	Cyprinus carpio	OECD 203	
Crustacea 48-hour EC50 mg/l	:	4.23	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	:	0.15	Pseudokirchneriella	OECD 201	
Other plants EC50 mg/l	:			OECD 221	Not available

Terrestrial Toxicity
Birds Oral LD50 mg/kg
Chemical Name
Folpet

Bees
Oral (ug/bee)
CLAYTON ZEBO : >100

12.2. Persistence and degradability

Abiotic Degradation **Water DT50** **Chemical Name**	**Values**	**Method**	**Remarks**
Mancozeb	17 hours	OECD 111	pH 7

Soil DT50 days **Chemical Name**	
Mancozeb	:Not available

Biodegradation **Chemical Name**	
Mancozeb	**:**Not available

12.3. Bioaccumulative potential

Partition Coefficient **(n-octanol/water) Log Pow** **Chemical Name**	**Values**	**Method**	**Remarks**
Mancozeb	**:** <3		

Bioconcentration factor (BCF) **Chemical Name**	
Mancozeb	**:** 2.1-3.1

12.4. Mobility in soil

Adsorption/Desorption **Chemical Name**	**Values**	**Method**	**Remarks**
Mancozeb	**:** 500 - 2000 (1000 estimated)		Koc

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

12.6. Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Improper disposal or reuse of this container may be dangerous and illegal.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORTATION INFORMATION

IMDG/IMO

14.1 UN/ID No	3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Mancozeb)
14.3 Hazard Class	9
14.4 Packing Group	III
14.5 Marine pollutant	Yes
14.6 Special precautions for user	

RID/ADR

14.1 UN/ID No	3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Mancozeb)
14.3 Hazard Class	9
14.4 Packing Group	III
14.5 Environmental hazard	Yes
14.6 Special precautions for user	Not applicable

ICAO/IATA

14.1 UN/ID No	3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Mancozeb)
14.3 Hazard Class	9
14.4 Packing Group	III
14.5 Environmental hazard	Yes
14.6 Special precautions for user	Not Applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	

Section 15: REGULATORY INFORMATION

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

15.2. Chemical safety assessment

A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required. A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009.

Section 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R43 - May cause sensitization by skin contact
R50 - Very toxic to aquatic organisms
R63 - Possible risk of harm to the unborn child

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

H317 - May cause an allergic skin reaction
H361d - Suspected of damaging the unborn child
H400 - Very toxic to aquatic life

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The information provided in this Material 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.

End of Safety Data Sheet