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

1.1. Product identifier CLAYTON TEBBIT
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 in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.
Acute toxicity: Category 4 H302 Harmful if swallowed.
Acute toxicity: Category 4 H332 Harmful if inhaled.
Serious eye damage: Category 1 H318 Causes serious eye damage.
Specific target organ toxicity - single exposure: Category 3 H335 May cause respiratory irritation.
Reproductive toxicity: Category 2 H361d Suspected of damaging the unborn child.
Acute aquatic toxicity: Category 1 H400 Very toxic to aquatic life.
Chronic aquatic toxicity: Category 1 H410 Very toxic to aquatic life with long lasting effects.
2.2 Label elements
Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.
Hazard label for supply/use required.
Hazardous components which must be listed on the label: Tebbitazole. N,N-Dimethyl decanamide

Signal word: Danger

Hazard statements
H302 + H332 Harmful if swallowed or if inhaled.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H361d Suspected of damaging the unborn child.
H410 Very toxic to aquatic life with long lasting effects.
EUH401 To avoid risks to human health and the environment, comply with the instructions for use.
Precautionary statements
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor/physician.
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.
2.3 Other hazards - No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures
Chemical nature : Emulsion, oil in water (EW) Tebbitazole 250 g/l
Hazardous components
Hazard statements according to Regulation (EC) No. 1907/2006

Name	CAS-No. / EC-No. / REACH Reg. No	Classification Regulation (EC) No 1272/2008	Conc. [%]
Tebbitazole	107534-96-3 403-640-2	Repr. 2, H361d Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	25.9
N,N-Dimethyl decanamide	14433-76-2 238-405-1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 3, H412	>= 25

Further information : Tebbitazole 107534-96-3 M-Factor: 1 (acute), 10 (chronic)
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 : Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
Inhalation : Move to fresh air. Keep patient warm and at rest. Call a physician or poison control centre immediately.
Skin contact : Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.
Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control centre immediately.
Ingestion : Rinse mouth. Do NOT induce vomiting. Call a physician or poison control centre immediately.
4.2 Most important symptoms and effects, both acute and delayed Symptoms : No symptoms known or expected.
4.3 Indication of any immediate medical attention and special treatment needed
Treatment : Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media
Suitable : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable : High volume water jet
5.2 Special hazards arising from the substance or mixture : In the event of fire the following may be released:, Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Nitrogen oxides (NOx) 5.3 Advice for firefighters
Special protective equipment for fire-fighters : In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.
Further information : Contain the spread of the fire-fighting media. Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Precautions : Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.
6.2 Environmental precautions
Do not allow to get into surface water, drains and ground water. If spillage enters drains leading to sewage works inform local water company immediately. If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).
6.3 Methods and materials for containment and cleaning up
Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.
6.4 Reference to other sections
Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Advice on safe handling : No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation.
Advice on protection against fire and explosion : No special precautions required.
Hygiene measures : Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).
7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers : Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from direct sunlight.

Protect from frost. Advice on common storage : Keep away from food, drink and animal feeding-stuffs. Suitable materials HDPE (high density polyethylene) Coextruded containers with an internal barrier layer made of ethylene vinyl alcohol copolymer (EVOH)
7.3 Specific end uses : Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Tebbitazole	107534-96-3	0.2 mg/m3 (TWA)		OES BCS*

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"
8.2 Exposure controls
Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004).
Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.
Personal protective equipment : In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.
Respiratory protection : Respiratory protection is not required under anticipated circumstances of exposure. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.
Hand protection : Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet. Material Nitrile rubber Rate of permeability > 480 min Glove thickness > 0.4 mm Protective index Class 6 Directive Protective gloves complying with EN 374.
Eye protection : Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).
Skin and body protection : Wear standard coveralls and Category 3 Type 6 suit.
If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Form Liquid
Colour light yellow Odour aromatic
pH 5.0 - 8.0 at 1 % (23 °C) (deionized water)
Density ca. 0.97 g/cm³ at 20 °C
Partition coefficient: noctanol/water :Tebbitazole: log Pow: 3.7 : N,N-Dimethyldecanamide: log Pow: 2.46
Viscosity, kinematic ca. 34.1 mm2/s at 20 °C
9.2 Other information : Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity : Thermal decomposition : 350 °C, Heating rate: 3 K/min Exothermic decomposition.
10.2 Chemical stability : Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions : No hazardous reactions when stored and handled according to prescribed instructions.
10.4 Conditions to avoid : Extremes of temperature and direct sunlight.
10.5 Incompatible materials : Store only in the original container.
10.6 Hazardous decomposition products : No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute oral toxicity LD50 (rat) > 300 - < 2,000 mg/kg
Acute inhalation toxicity LC50 (rat) ca. 5 mg/l Exposure time: 4 h Determined in the form of a respirable aerosol. Acute dermal toxicity LD50 (rat) > 4,000 mg/kg
Skin irritation No skin irritation (rabbit)
Eye irritation Risk of serious damage to eyes. (rabbit)
Sensitisation Non-sensitizing. (guinea pig) OECD Test Guideline 406, Buehler test Non-sensitizing. (guinea pig) OECD Test Guideline 406, Magnusson & Kligman test

Assessment repeated dose toxicity : Tebbitazole did not cause specific target organ toxicity in experimental animal studies. N,N-Dimethyldecanamide did not cause specific target organ toxicity in experimental animal studies.
Assessment mutagenicity : Tebbitazole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests. N,NDimethyldecanamide was not genotoxic in a battery of in vitro tests.
Assessment carcinogenicity : Tebbitazole caused at high dose levels an increased incidence of tumours in mice in the following organ(s): liver. The mechanism of tumour formation is not considered to be relevant to man. N,N-Dimethyldecanamide is not considered carcinogenic.
Assessment toxicity to reproduction : Tebbitazole caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Tebbitazole is related to parental toxicity. N,N-Dimethyldecanamide is not considered a reproductive toxicant at non-maternally toxic dose levels.
Assessment developmental toxicity
Tebbitazole caused developmental toxicity only at dose levels toxic to the dams. Tebbitazole caused an increased incidence of post implantation losses, an increased incidence of non-specific malformations. N,NDimethyldecanamide did not cause developmental toxicity in rats and rabbits.
Further information : The toxicological data refer to a similar formulation. Irritating to respiratory system.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)) 9.28 mg/l Exposure time: 96 h
Toxicity to aquatic invertebrates EC50 (Daphnia magna (Water flea)) 7.3 mg/l Exposure time: 48 h
Chronic toxicity to aquatic invertebrates : NOEC (Daphnia (water flea)): 0.010 mg/l Exposure time: 21 d The value mentioned relates to the active ingredient Tebbitazole.
Toxicity to aquatic plants EC50 (Raphidocelis subcapitata (freshwater green alga)) 3.51 mg/l Growth rate; Exposure time: 72 h (Lemna gibba (gibbous duckweed)) 0.237 mg/l Growth rate; Exposure time: 14 d The value mentioned relates to the active ingredient Tebbitazole.

12.2 Persistence and degradability .	Tebbitazole: not rapidly biodegradable N,N-Dimethyldecanamide: rapidly biodegradable Koc : Tebbitazole: Koc: 769
12.3 Bioaccumulative potential	Tebbitazole: Bioconcentration factor (BCF) 35 - 59 Does not bioaccumulate. N,N-Dimethyldecanamide: Does not bioaccumulate.
12.4 Mobility in soil	Tebbitazole: Slightly mobile in soils. N,N-Dimethyldecanamide: Slightly mobile in soils

12.5 Results of PBT and vPvB assessment
Tebbitazole: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
N,N-Dimethyldecanamide: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
12.6 Other adverse effects : Additional ecological information No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods : Product : In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK). Contaminated packaging : Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times. Add washings to sprayer at time of filling. Dispose of empty and cleaned packaging safely. Large containers (> 25 l or > 25 kg) should not be rinsed or re-used for any other purpose. Return large containers to supplier. Follow advice on product label and/or leaflet. Waste key for the unused product 02 01 08* agrochemical waste containing dangerous substances

SECTION 14: TRANSPORT INFORMATION

ADR/RID/ADN	14.1 UN number 3082 14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEBBITAZOLE SOLUTION) 14.3 Transport hazard class(es) 9 14.4 Packing group III 14.5 Environm. Hazardous Mark YES Hazard no. 90 Tunnel Code E This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

IMDG	14.1 UN number 3082 14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEBBITAZOLE SOLUTION) 14.3 Transport hazard class(es) 9 14.4 Packing group III 14.5 Marine pollutant YES
IATA	14.1 UN number 3082 14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEBBITAZOLE SOLUTION) 14.3 Transport hazard class(es) 9 14.4 Packing group III 14.5 Environm. Hazardous Mark YES
UK 'Carriage' Regulations	14.1 UN number 3082 14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEBBITAZOLE SOLUTION) 14.3 Transport hazard class(es) 9 14.4 Packing group III 14.5 Environm. Hazardous Mark YES Emergency action code 3Z

14.6 Special precautions for user See sections 6 to 8 of this Safety Data Sheet.
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
UK and Northern Ireland Regulatory References : This material may be subject to some or all of the following regulations (and any subsequent amendments). Users must ensure that any uses and restrictions as indicated on the label and/or leaflet are followed.
Transport : Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No 1348) Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997 No 2367) Air Navigation Dangerous Goods Regulations 2002 (SI 2002 No 2786)
Supply and Use : Chemical (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716) Chemical (Hazard Information and Packaging for Supply) (Northern Ireland) Regulations 2009 Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No 2677) EH40 Occupational Exposure Limits - Table 1 List of approved workplace exposure limits Control of Pesticide Regulations 1986 Dangerous Substances and Explosive Atmospheres Regulations 2002
Waste Treatment : Environmental Protection Act 1990, Part II Environmental Protection (Duty of Care) Regulations 1991 The Waste Management Licensing Regulations 1994 (as amended) Hazardous Waste Regulations 2005 (Replacing Special Waste Regulations 1996 as amended) Landfill Directive Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94) Water Resources Act 1991 Anti-Pollution Works Regulations 1999
Further information : WHO-classification: II (Moderately hazardous)
15.2 Chemical Safety Assessment : A chemical safety assessment is not required.

SECTION 16: OTHER INFORMATION
Text of the hazard statements mentioned in Section 3 H302
Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H361d Suspected of damaging the unborn child.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
Abbreviations and acronyms
ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS-Nr. Chemical Abstracts Service number Conc. Concentration
EC-No. European community number
ECx Effective concentration to x %
EH40 WEL Worker Exposure Limit
EINECS European inventory of existing commercial substances
ELINCS European list of notified chemical substances

EN European Standard
EU European Union
IATA International Air Transport Association
IBC International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx Inhibition concentration to x %
IMDG International Maritime Dangerous Goods
LCx Lethal concentration to x %
LDx Lethal dose to x %
LOEC/LOEL Lowest observed effect concentration/level
MARPOL MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S. Not otherwise specified
NOEC/NOEL No observed effect concentration/level
OECD Organization for Economic Co-operation and Development
RID Regulations concerning the International Carriage of Dangerous Goods by Rail SI
Statutory Instrument
TWA Time weighted average
UN United Nations
WHO World health organisation

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.