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

1.1. Product identifier CLAYTON TUSKAR

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.

Eye irritation: Category 2

H319 Causes serious eye irritation.

Specific target organ toxicity - single exposure: Category 3

H335 May cause respiratory irritation. 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: Prothioconazole. N,N-Dimethyl decanamide

Signal Word: WARNING





Hazard statements

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

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.

EUH208 Contains 2-[2-(1-chlorocyclopropyl)-2-hydroxy-3-phenylpropyl]-2,4-dihydro-3H-1,2,4triazole-3-thione. May produce an allergic reaction.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308 + P311 IF exposed or concerned: Call a POISON CENTRE/ doctor/ physician.

P501 Dispose of contents/container to a licensed waste disposal contractor or collection site, except for triple rinsed empty 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

Emulsifiable concentrate (EC). Prothioconazole 250 g/l

Hazardous components

Hazard statements according to Regulation (EC) No. 1272/2008

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Name	CAS-No. / EC-No. / REACH Reg. No.	Classification REGULATION (EC) No 1272/2008	Conc. [%]
Prothioconazole	178928-70-6	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	25.00
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	> 20.00

Further information

Prothioconazole 178928-70-6 M-Factor: 10 (acute)

For the full text of the H-Statements mentioned in this Section, see Section 16.



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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. Get medical attention if irritation develops and persists.

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. Get medical attention if irritation develops and persists.

Ingestion: Do NOT induce vomiting. Call a physician or poison control centre immediately. Rinse mouth.

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 (HCI), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Sulphur oxides, Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for firefighters: 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 the product contaminates rivers and lakes or drains inform respective authorities.

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.

Additional advice: Check also for any local site procedures.

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. Protect from frost. Keep away from direct sunlight.

Advice on common storage: Keep away from food, drink and animal feeding-stuffs.

Suitable materials HDPE (high density polyethylene)

7.3 Specific end use(s): Refer to the label and/or leaflet.



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Prothioconazole	178928-70-6	1.4 mg/m3 (SK-ABS)		OES BCS*

^{*}OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

8.2 Exposure controls

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

Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably 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, clear to slightly turbid

Colour tan
Odour aromatic

pH 5.0 - 6.0 at 1 % (23 °C) (deionized water)

Flash point 152 °C Ignition temperature 340 °C

Density ca. 1.00 g/cm³ at 20 °C

Partition coefficient: n-octanol/water Prothioconazole: log Pow: 3.82 at 20 °C at pH 7 N,N-Dimethyldecanamide:

log Pow: 2.46

Surface tension 29.9 mN/m at 20 °C Explosivity Not explosive

9.2 Other information: Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Thermal decomposition Stable under normal conditions.

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) > 2,500 mg/kg

Acute inhalation toxicity LC50 (Rat) > 5 mg/l Exposure time: 4 h Highest attainable concentration. Determined in the

form of a respirable aerosol.

Irritating to respiratory system. The value mentioned relates to N,N-dimethylacetamide.



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Acute dermal toxicity LD50 (Rat) > 4,000 mg/kg

Skin irritation No skin irritation (Rabbit) Test conducted with a similar formulation.

Eye irritation Irritating to eyes. (Rabbit) Test conducted with a similar formulation.

Sensitisation Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Buehler test

Test conducted with a similar formulation.

Assessment repeated dose toxicity Prothioconazole 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 Prothioconazole was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

N,N-Dimethyldecanamide was not genotoxic in a battery of in vitro tests.

Assessment carcinogenicity Prothioconazole was not carcinogenic in lifetime feeding studies in rats and mice.

N,N-Dimethyldecanamide is not considered carcinogenic.

Assessment toxicity to reproduction: Prothioconazole 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 Prothioconazole is related to parental toxicity. N,N-Dimethyldecanamide is not considered a reproductive toxicant at non-maternally toxic dose levels.

Assessment developmental toxicity: Prothioconazole caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Prothioconazole are related to maternal toxicity. N,N-Dimethyldecanamide did not cause developmental toxicity in rats and rabbits.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)) 4.02 mg/l Exposure time: 96 h

Toxicity to aquatic invertebrates EC50 (Daphnia magna (Water flea)) 2.9 mg/l Exposure time: 48 h

Toxicity to aquatic plants EC50 (Raphidocelis subcapitata (freshwater green alga)) 12.7 mg/l Growth rate; Exposure time: 72 h. EC50 (Skeletonema costatum) 0.046 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient prothioconazole.

12.2 Persistence and degradability

Biodegradability Prothioconazole: Not rapidly biodegradable. N,N-Dimethyldecanamide: rapidly biodegradable

Koc Prothioconazole: 1765

12.3 Bioaccumulative potential

Bioaccumulation Prothioconazole: Bioconcentration factor (BCF) 19 Does not bioaccumulate. N,N-

Dimethyldecanamide: Does not bioaccumulate.

12.4 Mobility in soil . Prothioconazole: Slightly mobile in soils. N,N-Dimethyldecanamide: Slightly mobile in soils

12.5 Results of PBT and vPvB assessment

Prothioconazole: 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: It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines.

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. Follow advice on product label and/or leaflet.

Waste key for the unused product 02 01 08* agrochemical waste containing dangerous substances



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SECTION 14: TRANSPORT INFORMATION

ADR/ RID/ ADN	14.1 UN number 3082 14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PROTHIOCONAZOLE 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. (PROTHIOCONAZOLE 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. (PROTHIOCONAZOLE SOLUTION) 14.3 Transport hazard class(es) 9 14.4 Packing group III 14.5 Environm. Hazardous Mark YES

^{14.6} Special precautions for user See sections 6 to 8 of this Safety Data Sheet.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Republic of Ireland Regulations

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. Supply and Use

European Communities (Prohibition of Certain Active Substances in Plant Protection Products) Regulations 1981 (SI No 320/1981) European Communities (Authorization, Placing on the Market, Use and Control of Plant Protection Products) Regulations 2003 (SI No 83/2003) European Communities (Classification, Packaging and Labelling of Plant Protection Products and Biocide Products) Regulations 2001 (SI No 624/2001 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations, 2001 (SI No 619/2001) Waste Treatment Landfill Directive Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94) Further information

WHO-classification: III (Slightly 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 H315

Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

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 ATE Acute toxicity estimate

CAS-Nr. Chemical Abstracts Service number

Conc. Concentration

EC-No. European community number

ECx Effective concentration to x %

EINECS European inventory of existing commercial substances



^{14.7} Transport in bulk according to Annex II of MARPOL and the IBC Code No transport in bulk according to the IBC Code

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ELINCS European list of notified chemical substances

ELV Exposure Limit Value

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.

