



## SAFETY DATA SHEET MOSTYN DUO CS

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

#### 1.1. Product identifier

Product name                      MOSTYN DUO CS  
Product number                    CYPRA1181ZWA

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

Identified uses                    Biocidal products (e.g. disinfectants, pest control).

#### 1.3. Details of the supplier of the safety data sheet

Supplier                              Hockley International Ltd  
Hockley House  
3 Longstone Road  
Ashbrook Office Park  
Manchester  
M22 5LB  
TEL: +44 (0) 161 209 7400  
FAX: +44 (0) 161 209 7401  
sds@hockley.co.uk

#### 1.4. Emergency telephone number

Emergency telephone            +44 (0)800 246 1274 (24 hours)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards                    Not Classified  
Health hazards                      Not Classified  
Environmental hazards            Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

Classification (67/548/EEC or 1999/45/EC)    N; R50/53

#### 2.2. Label elements

Hazard pictograms



Signal word                            Warning  
Hazard statements                    H410 Very toxic to aquatic life with long lasting effects.  
Precautionary statements            P273 Avoid release to the environment.  
P391 Collect spillage.  
P501 Dispose of contents/ container in accordance with national regulations.  
Supplemental label information    EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

#### 2.3. Other hazards



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This product does not contain any substances classified as PBT or vPvB.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

CYPHENOTHRIN		10.71% w/w
CAS number: 39515-40-7	EC number: 254-484-5	
M factor (Acute) = 1000	M factor (Chronic) = 1	
Classification Acute Tox. 4 - H302 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		
1,2-PROPANDIOL		5-10%
CAS number: 57-55-6	EC number: 200-338-0	REACH registration number: 01-2119456809-23-XXXX
Classification Not Classified	Classification (67/548/EEC or 1999/45/EC) -	
PRALLETHRIN		1.1% w/w
CAS number: 23031-36-9	EC number: 245-387-9	
M factor (Acute) = 100	M factor (Chronic) = 100	
Classification Acute Tox. 4 - H302 Acute Tox. 3 - H331 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

General information	Remove affected person from source of contamination. CAUTION! First aid personnel must be aware of own risk during rescue! Place unconscious person on the side in the recovery position and ensure breathing can take place.
Inhalation	Move affected person to fresh air at once. Get medical attention. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. If breathing stops, provide artificial respiration.
Ingestion	Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention immediately. If breathing stops, provide artificial respiration.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.



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

Inhalation	No data available.
Ingestion	No data available.
Skin contact	No data available.
Eye contact	No data available.

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

Notes for the doctor	Treat symptomatically.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

Specific hazards	Contain and collect extinguishing water. Avoid releasing into the environment. Do not discharge into drains or watercourses or onto the ground.
Hazardous combustion products	Heating may generate the following products: Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO). Oxides of nitrogen.

### 5.3. Advice for firefighters

Protective actions during firefighting	In case of fire and/or explosion do not breathe fumes
Special protective equipment for firefighters	Wear full protective clothing (EN 469). Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. Warn everybody of potential hazards and evacuate if necessary.
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### 6.2. Environmental precautions

Environmental precautions	Do not discharge into drains or watercourses or onto the ground. Stop leak if possible without risk. In case of entry into waterways, soil or drains, inform the responsible authorities.
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### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Absorb spillage with sand or other inert absorbent. Dike far ahead of larger spills for later disposal. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. This material and its container must be disposed of as hazardous waste.
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### 6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. For waste disposal, see section 13.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling



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**Usage precautions** Handle and open container with care. Wear protective clothing as described in Section 8 of this safety data sheet. Keep container tightly sealed when not in use. Provide adequate ventilation. If ventilation is inadequate, suitable respiratory protection must be worn. Do not release into the environment. Avoid the spillage or runoff entering drains, sewers or watercourses. Do not eat, drink or smoke when using the product. Wash hands after handling. Remove contaminated clothing. Wash contaminated clothing before reuse. Do not breathe vapours.

7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store away from incompatible materials listed in section 10 of this safety data sheet. Keep out of the reach of children.

7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

1,2-PROPANDIOL

Long-term exposure limit (8-hour TWA): WEL 150 ppm 474 mg/m<sup>3</sup> total vapour and particulates

Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> particulate

WEL = Workplace Exposure Limit.

1,2-PROPANDIOL (CAS: 57-55-6)

DNEL	Industry - Inhalation; Long term systemic effects: 168 mg/m <sup>3</sup> Industry - Inhalation; Long term local effects: 10 mg/m <sup>3</sup> Consumer - Inhalation; Long term systemic effects: 50 mg/m <sup>3</sup> Consumer - Inhalation; Long term local effects: 10 mg/m <sup>3</sup>
PNEC	- Fresh water; 260 mg/l - marine water; 26 mg/l - Intermittent release; 183 mg/l - STP; 20000 mg/l - Sediment (Freshwater); 572 mg/kg - Sediment (Marinewater); 57.2 mg/kg - Soil; 50 mg/kg

8.2. Exposure controls

**Appropriate engineering controls** Provide adequate ventilation.

**Eye/face protection** Avoid contact with eyes. Wear approved safety goggles (EN 166).

**Hand protection** Wear protective gloves (EN 374).

**Other skin and body protection** Wear appropriate clothing to prevent any possibility of skin contact.

**Hygiene measures** No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

**Respiratory protection** If ventilation is inadequate, suitable respiratory protection must be worn. Filter A or environment-independent breathing apparatus.

**Thermal hazards** No data available.

**Environmental exposure controls** Do not release into the environment.



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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	White.
Odour	No characteristic odour.
Odour threshold	Not available.
pH	pH (diluted solution): 6 - 8 of a 1% solution
Melting point	Not available.
Initial boiling point and range	106°C
Flash point	> 100°C
Evaporation rate	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	0.9-1.01g/cm <sup>3</sup>
Solubility(ies)	Not available.
Auto-ignition temperature	385°C
Decomposition Temperature	Not available.
Viscosity	168.5 mm <sup>2</sup> /s @ 40°C
Explosive properties	Not available.
Oxidising properties	Not available.
9.2. Other information	
Other information	Not available.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Reactivity No data available.

#### 10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

#### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None known. Will not polymerise.

#### 10.4. Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight.

#### 10.5. Incompatible materials

Materials to avoid Strong oxidising agents. Strong acids. Strong alkalis.



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### 10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Toxicological effects	Classification according to Regulation (EC) No 1272/2008.
Acute toxicity - oral	
Notes (oral LD <sub>50</sub> )	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	4,233.7
Acute toxicity - dermal	
Notes (dermal LD <sub>50</sub> )	Based on available data the classification criteria are not met.
Acute toxicity - inhalation	
Notes (inhalation LC <sub>50</sub> )	Based on available data the classification criteria are not met.
ATE inhalation (dusts/mists mg/l)	45.45
Skin corrosion/irritation	
Skin corrosion/irritation	Based on available data the classification criteria are not met.
Serious eye damage/irritation	
Serious eye damage/irritation	Based on available data the classification criteria are not met.
Respiratory sensitisation	
Respiratory sensitisation	Based on available data the classification criteria are not met.
Skin sensitisation	
Skin sensitisation	Based on available data the classification criteria are not met.
Germ cell mutagenicity	
Genotoxicity - in vivo	Based on available data the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	Based on available data the classification criteria are not met.
Reproductive toxicity	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Specific target organ toxicity - single exposure	
STOT - single exposure	Based on available data the classification criteria are not met.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	Based on available data the classification criteria are not met.
Aspiration hazard	
Aspiration hazard	Based on available data the classification criteria are not met.

Toxicological information on ingredients.

CYPHENOTHHRIN

Acute toxicity - oral



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Acute toxicity oral (LD <sub>50</sub> mg/kg)	318.0
Species	Rat
Notes (oral LD <sub>50</sub> )	OECD 425
ATE oral (mg/kg)	500.0
Acute toxicity - dermal	
Acute toxicity dermal (LD <sub>50</sub> mg/kg)	2,000.0
Species	Rat
Notes (dermal LD <sub>50</sub> )	OECD 402.
Skin corrosion/irritation	
Skin corrosion/irritation	Not irritating.
Animal data	OECD 404. Rabbit
Serious eye damage/irritation	
Serious eye damage/irritation	Not irritating. OECD 405. Rabbit
Respiratory sensitisation	
Respiratory sensitisation	Based on available data the classification criteria are not met.
Skin sensitisation	
Skin sensitisation	Not sensitising. OECD 429. Guinea pig
Germ cell mutagenicity	
Genotoxicity - in vivo	Based on available data the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	Based on available data the classification criteria are not met.
Reproductive toxicity	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
Specific target organ toxicity - single exposure	
STOT - single exposure	Based on available data the classification criteria are not met.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	Based on available data the classification criteria are not met.
Aspiration hazard	
Aspiration hazard	Based on available data the classification criteria are not met.

## PRALLETHRIN

Acute toxicity - oral



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Acute toxicity oral (LD <sub>50</sub> mg/kg)	417.0
Species	Rat
Notes (oral LD <sub>50</sub> )	OECD 425
ATE oral (mg/kg)	500.0
Acute toxicity - dermal	
Notes (dermal LD <sub>50</sub> )	LD <sub>50</sub> >2000 mg/kg, OECD 402., Rat
Acute toxicity - inhalation	
Acute toxicity inhalation (LC <sub>50</sub> dust/mist mg/l)	0.658
Species	Rat
Notes (inhalation LC <sub>50</sub> )	OECD 403.
ATE inhalation (dusts/mists mg/l)	0.5
Skin corrosion/irritation	
Skin corrosion/irritation	Not irritating.
Animal data	OECD 404. Rabbit
Serious eye damage/irritation	
Serious eye damage/irritation	Not irritating. OECD 405. Rabbit
Respiratory sensitisation	
Respiratory sensitisation	Based on available data the classification criteria are not met.
Skin sensitisation	
Skin sensitisation	Not sensitising. OECD 429. Rabbit
Germ cell mutagenicity	
Genotoxicity - in vivo	Based on available data the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	Based on available data the classification criteria are not met.
Reproductive toxicity	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
Specific target organ toxicity - single exposure	
STOT - single exposure	Based on available data the classification criteria are not met.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	Based on available data the classification criteria are not met.
Aspiration hazard	





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Aspiration hazard

Based on available data the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Toxicity Classification according to Regulation (EC) No 1272/2008. Very toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

#### CYPHENOTHRIN

Toxicity	Classification according to Regulation (EC) No 1272/2008. Very toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	
LE(C) <sub>50</sub>	0.0001 < L(E)C <sub>50</sub> ≤ 0.001
M factor (Acute)	1000
Acute toxicity - fish	LC <sub>50</sub> , 96 hours: 0.00034 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC <sub>50</sub> , 48 hours: 0.00043 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC <sub>50</sub> , 72 hours: >0.014 mg/l, Algae
Chronic aquatic toxicity	
M factor (Chronic)	1

#### PRALLETHRIN

Toxicity	Classification according to Regulation (EC) No 1272/2008. Very toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	
LE(C) <sub>50</sub>	0.001 < L(E)C <sub>50</sub> ≤ 0.01
M factor (Acute)	100
Acute toxicity - fish	LC <sub>50</sub> , 96 hours: 0.012 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC <sub>50</sub> , 48 hours: 0.0062 mg/l, Daphnia magna
Chronic aquatic toxicity	
NOEC	0.0001 < NOEC ≤ 0.001
Degradability	Non-rapidly degradable
M factor (Chronic)	100

#### 12.2. Persistence and degradability

Ecological information on ingredients.

#### CYPHENOTHRIN

Persistence and degradability The product is not readily biodegradable.



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### PRALLETHRIN

Persistence and degradability The product is readily biodegradable.

#### 12.3. Bioaccumulative potential

Ecological information on ingredients.

### CYPHENOTHRIN

Partition coefficient log Pow: 5.79 - 6.09

### PRALLETHRIN

Partition coefficient log Pow: ~ 49

#### 12.4. Mobility in soil

Ecological information on ingredients.

### CYPHENOTHRIN

Mobility No information available.

### PRALLETHRIN

Mobility No data available.

#### 12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

### CYPHENOTHRIN

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

### PRALLETHRIN

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

#### 12.6. Other adverse effects

Ecological information on ingredients.

### CYPHENOTHRIN

Other adverse effects No data available.

### PRALLETHRIN

Other adverse effects No data available.

## SECTION 13: Disposal considerations


#### 13.1. Waste treatment methods



## MOSTYN DUO CS

General information	Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Disposal methods	Dispose of waste via a licensed waste disposal contractor. Waste is suitable for incineration. Do NOT reuse empty containers. Empty containers can be sent for disposal or recycling.

### SECTION 14: Transport information

General	Environmentally Hazardous Substance Mark NOT required for single packagings and combination packagings containing inner packagings $\leq 5L$ for liquids, or $\leq 5kg$ for solids. (ADR special provision 375, IMDG code 2.10.2.7, IATA special provision A197)
	Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to any other provisions of the Code relevant to marine pollutants provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In the case of marine pollutants also meeting the criteria for inclusion in another hazard class all provisions of this Code relevant to any additional hazards continue to apply.
14.1. UN number	
UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082
14.2. UN proper shipping name	
Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains cyphenothrin & prallethrin)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains cyphenothrin & prallethrin)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains cyphenothrin & prallethrin)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains cyphenothrin & prallethrin)
14.3. Transport hazard class(es)	
ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9
Transport labels	
	
14.4. Packing group	
ADR/RID packing group	III
IMDG packing group	III



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ICAO packing group III

ADN packing group III

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

Not available.

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant.

## SECTION 15: Regulatory information

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

National regulations The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

EU legislation Dangerous Substances Directive 67/548/EEC.  
 Dangerous Preparations Directive 1999/45/EC.  
 Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).  
 Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Health and environmental listings Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer. As amended. Regulation (EC) 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals (as amended). None of the ingredients are listed.

Authorisations (Annex XIV Regulation 1907/2006) No specific authorisations are known for this product.

Restrictions (Annex XVII Regulation 1907/2006) No specific restrictions on use are known for this product.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet PBT - Persistent, bioaccumulative and toxic.  
 vPvB - Very persistent and very bioaccumulative  
 EN - European standard adopted by the European Committee for Standardisation.



## MOSTYN DUO CS

### Key literature references and sources for data

C.D.S. Tomlin, 2009. The Pesticide Manual, 15th Edition (BCPC). Directive 98/8/EC concerning the placing biocidal products on the market. Inclusion of active substances in Annex I or IA to Directive 98/8/EC. Assessment report. European Chemicals Agency, <http://echa.europa.eu/> EC Directives 2006/15/EC, 2009/161/EC. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (as amended).

Revision date 16/07/2021

Revision 2.0

Supersedes date 01/03/2018

SDS number 20564

Hazard statements in full  
H302 Harmful if swallowed.  
H331 Toxic if inhaled.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.