



## SAFETY DATA SHEET PERMOST CS

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

#### 1.1. Product identifier

**Product name** PERMOST CS  
**Product number** PERTWE0250CSA

#### 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

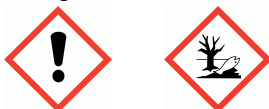
#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

**Physical hazards** Not Classified  
**Health hazards** Skin Sens. 1 - H317  
**Environmental hazards** Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

#### 2.2. Label elements

##### Pictogram



**Signal word** Warning

**Hazard statements** H317 May cause an allergic skin reaction.  
 H410 Very toxic to aquatic life with long lasting effects.

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<b>Precautionary statements</b>	P273 Avoid release to the environment. P280 Wear protective gloves. P391 Collect spillage. P302+P352 IF ON SKIN: Wash with plenty of water. P363 Wash contaminated clothing before reuse. P501 Dispose of contents/ container in accordance with national regulations.
<b>Supplemental label information</b>	EUH401 To avoid risks to human health and the environment, comply with the instructions for use.
<b>Contains</b>	PERMETHRIN (25:75) TECHNICAL
<b>Supplementary precautionary statements</b>	P261 Avoid breathing vapour/ spray. P272 Contaminated work clothing should not be allowed out of the workplace. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.

### 2.3. Other hazards

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

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>PERMETHRIN (25:75) TECHNICAL</b>		<b>10-25% w/w</b>
CAS number: 52645-53-1	EC number: 258-067-9	
M factor (Acute) = 1000	M factor (Chronic) = 1000	
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Acute Tox. 4 - H302	Xn; R20/22. N; R50/53. R43	
Acute Tox. 4 - H332		
Skin Sens. 1 - H317		
Aquatic Acute 1 - H400		
Aquatic Chronic 1 - H410		
<b>1,2-PROPANDIOL</b>		<b>10-25% w/w</b>
CAS number: 57-55-6	EC number: 200-338-0	REACH registration number: 01-2119456809-23-XXXX
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Not Classified	-	

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

<b>General information</b>	Remove affected person from source of contamination. Get medical attention immediately. CAUTION! First aid personnel must be aware of own risk during rescue! Place unconscious person on their side in the recovery position and ensure breathing can take place. Remove contaminated clothing.
<b>Inhalation</b>	Remove person to fresh air and keep comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. If breathing stops, provide artificial respiration.

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<b>Ingestion</b>	DO NOT induce vomiting. Get medical attention immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.
<b>Skin contact</b>	Wash skin thoroughly with soap and water. Remove contaminated clothing. Get medical attention promptly if symptoms occur after washing.
<b>Eye contact</b>	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if irritation persists after washing.

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

**General information** No data available.

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

**Notes for the doctor** Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Water spray, foam, dry powder or carbon dioxide.

**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** Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Combustion products of this material have to be classed invariably as respiratory poison.

**Hazardous combustion products** When heated, vapours/gases hazardous to health may be formed. Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrogen chloride (HCl).

### 5.3. Advice for firefighters

**Protective actions during firefighting** In case of fire and/or explosion do not breathe fumes. Contain and collect extinguishing water. Avoid releasing into the environment. Avoid the spillage or runoff entering drains, sewers or watercourses.

**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** Avoid contact with skin, eyes and clothing. 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.

### 6.2. Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground. Stop leak if possible without risk. DO NOT touch spilled material! In case of entry into waterways, soil or drains, inform the responsible authorities.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Contain spillage with sand, earth or other suitable non-combustible material. 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. Dispose of contents/container in accordance with local regulations.

### 6.4. Reference to other sections

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**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Handle and open container with care. Avoid contact with skin and eyes. If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn. Do not eat, drink or smoke when using this product.

**Advice on general occupational hygiene** Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes. Wash promptly with soap and water if skin becomes contaminated. Wash hands thoroughly after handling. Remove contaminated clothing. Do not breathe spray. Keep away from food and drink.

#### 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 (see Section 10).

#### 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

##### PERMETHRIN (25:75) TECHNICAL (CAS: 52645-53-1)

**PNEC**

- water; 0.00047 µg/l
- STP; 0.00495 mg/l
- Soil; > 0.0876 mg/kg
- Sediment (Freshwater); 0.001 mg/kg
- ;

##### 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.

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<b>Eye/face protection</b>	Wear approved safety goggles (EN 166).
<b>Hand protection</b>	Wear protective gloves (EN 374).
<b>Other skin and body protection</b>	Chemical-resistant work clothes.
<b>Hygiene measures</b>	Good personal hygiene procedures should be implemented. Wash skin thoroughly after handling.
<b>Respiratory protection</b>	Change work clothing daily before leaving workplace. Filter A or environment-independent breathing apparatus.
<b>Thermal hazards</b>	No data available.
<b>Environmental exposure controls</b>	Avoid the spillage or runoff entering drains, sewers or watercourses. Do not release into the environment.

### SECTION 9: Physical and Chemical Properties

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

<b>Appearance</b>	Liquid.
<b>Colour</b>	White to beige
<b>Odour</b>	Cocoate.
<b>Odour threshold</b>	Not determined.
<b>pH</b>	pH (diluted solution): 4.0 - 6.5 of 1% solution
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	Not available.
<b>Flash point</b>	88°C EEC A9
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Other flammability</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Relative density</b>	1.04 - 1.07 g/cm <sup>3</sup> @ 20°C
<b>Bulk density</b>	Not available.
<b>Solubility(ies)</b>	Dispersible in water.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	354°C
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	457 mPa s @ 20°C 236 mPa s @ 40°C 11.28 Pa @ 20°C 11.90 Pa @ 40°C
<b>Explosive properties</b>	Not explosive.
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidising.

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### 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 No data available.

#### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No data available.

#### 10.4. Conditions to avoid

Conditions to avoid Stable at normal ambient temperatures and when used as recommended.

#### 10.5. Incompatible materials

Materials to avoid No data available.

#### 10.6. Hazardous decomposition products

Hazardous decomposition products None under normal conditions.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity - oral

Notes (oral LD<sub>50</sub>) LD<sub>50</sub> >5000 mg/kg, Oral, Rat OECD 425 Based on available data the classification criteria are not met.

##### Acute toxicity - dermal

Notes (dermal LD<sub>50</sub>) LD<sub>50</sub> >2000 mg/kg, Dermal, Rat OECD 402. Based on available data the classification criteria are not met.

##### Acute toxicity - inhalation

Notes (inhalation LC<sub>50</sub>) LC<sub>50</sub> >5 mg/l (4 hrs), Inhalation, Rat OECD 403. Based on available data the classification criteria are not met.

##### Skin corrosion/irritation

Animal data Rabbit OECD 404. Not irritating.

##### Serious eye damage/irritation

Serious eye damage/irritation Rabbit OECD 429. Not irritating.

##### Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

##### Skin sensitisation

Skin sensitisation OECD 429. - Mouse: Sensitising.

##### Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

##### Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

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### 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.

### Skin contact

The product contains a sensitising substance. May cause sensitisation by skin contact.

## SECTION 12: Ecological Information

**Ecotoxicity** Aquatic Chronic 1 - H410 Very toxic to aquatic life with long lasting effects.

### 12.1. Toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 0.0089 mg/l, Poecilia reticulata (Guppy)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 24 hours: 0.02 mg/l, Daphnia magna

### Ecological information on ingredients.

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**Toxicity** 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: 0.62 µg/l, Salmo gairdneri (Rainbow trout)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 96 hours: 0.62 µg/l, Daphnia magna

**Acute toxicity - aquatic plants** ErC<sub>50</sub>, 96 hours: 92 µg/l, Skeletonema costatum

#### Chronic aquatic toxicity

**M factor (Chronic)** 1000

### 12.2. Persistence and degradability

**Persistence and degradability** No data available.

### Ecological information on ingredients.

#### PERMETHRIN (25:75) TECHNICAL

**Persistence and degradability** This product is not expected to be readily biodegradable.

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**Biodegradation** Water - DT<sub>50</sub> : < 28 days

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available.

**Partition coefficient** Not available.

### Ecological information on ingredients.

#### PERMETHRIN (25:75) TECHNICAL

**Bioaccumulative potential** BCF: < 750,

**Partition coefficient** log Kow: 4.67

### 12.4. Mobility in soil

**Mobility** No data available.

### Ecological information on ingredients.

#### PERMETHRIN (25:75) TECHNICAL

**Mobility** Not considered mobile.

**Adsorption/desorption coefficient** Water - Koc: > 5000 @ °C

### 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.

#### PERMETHRIN (25:75) TECHNICAL

**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

**Other adverse effects** Not known.

### Ecological information on ingredients.

#### PERMETHRIN (25:75) TECHNICAL

**Other adverse effects** Not known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** This material and its container must be disposed of as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Do not reuse empty containers.

## SECTION 14: Transport information



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### 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 Permethrin)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Permethrin)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Permethrin)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Permethrin)

#### 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
ADN packing group	III
ICAO packing group	III

#### 14.5. Environmental hazards

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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.

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

<b>National regulations</b>	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). EH40/2005 Workplace exposure limits.
<b>EU legislation</b>	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). Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances. Annex I, Part 2, Category 9(i).
<b>Health and environmental listings</b>	Regulation (EC) No 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer (as amended). Regulation (EC) 689/2008 of the European Parliament and of the Council of 17 June 2008 concerning the export and import of dangerous chemicals (as amended). The following ingredients are listed: Permethrin
<b>Authorisations (Title VII Regulation 1907/2006)</b>	No specific authorisations are known for this product.
<b>Restrictions (Title VIII Regulation 1907/2006)</b>	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

<b>Abbreviations and acronyms used in the safety data sheet</b>	PBT - Persistent, bioaccumulative and toxic. vPvB - Very persistent and very bioaccumulative EN - European standard adopted by the European Committee for Standardisation.
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<b>Key literature references and sources for data</b>	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). 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). Dangerous Substances Directive 67/548/EEC. Supplier safety data sheet (SDS). Disseminated REACH registration dossier - <a href="http://apps.echa.europa.eu/registered/registered-sub.aspx">http://apps.echa.europa.eu/registered/registered-sub.aspx</a> European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>
<b>Revision comments</b>	NOTE: Lines within the margin indicate significant changes from the previous revision.
<b>Revision date</b>	05/12/2017
<b>Revision</b>	2.1
<b>Supersedes date</b>	11/03/2016
<b>SDS number</b>	20402
<b>Hazard statements in full</b>	H302 Harmful if swallowed. H317 May cause an allergic skin reaction. H332 Harmful 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.