



**PERMETHRIN WP 25A W**

**U-WW**

Version 2 / ZA  
102000002907

1/10  
Revision Date: 20.03.2019  
Print Date: 20.06.2019

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifier**

**Trade name** COOPEX WP 25 A W U-WW  
**Product code (UVP)** 05943760

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

**Use** Insecticide

**1.3 Details of the supplier of the safety data sheet**

**Supplier** Bayer (Pty) Ltd.  
27 Wrench Road, P.O. Box 143  
1600 Isando  
South Africa  
**Telephone** +27 (011) 921 5911  
**Telefax** +27 (011) 921 5766  
**Responsible Department** QHSE - Nigel, South Africa  
+27 (011) 365 8675 (during business hours only)

**1.4 Emergency telephone no.**

**Emergency telephone no.** +27 (0861) 555 777 (Western Cape Poisons Helpline)  
**Global Incident Response Hotline (24h)** +1 (760) 476 3964 (Company 3E for Bayer AG, Crop Science Division)

**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 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:**

- Permethrin



**Signal word:** Warning

**Hazard statements**

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- 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 Permethrin. May produce an allergic reaction.

**Precautionary statements**

- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P391 Collect spillage.  
 P501 Dispose of contents/container in accordance with local regulation.

**2.3 Other hazards**

- Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hours).  
 May form explosible dust-air mixture if dispersed.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Chemical nature**Wettable powder (WP)  
Permethrin 25%**Hazardous components**

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

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Permethrin	52645-53-1	Aquatic Chronic 1, H410 Skin Sens. 1, H317 Acute Tox. 4, H302 Acute Tox. 4, H332 Aquatic Acute 1, H400	25,00
Sodium diisopropylnaphthalene sulphonate	1322-93-6 01-2119969954-16-XXXX	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Dam. 1, H318 STOT SE 3, H335	>= 1 – < 3
naphthalenesulfonic acid-formaldehyde-polycondensate as sodium salt	36290-04-7	Aquatic Chronic 3, H412	> 1 – < 25
Kaolin	1332-58-7	Not classified	> 1
Diatomaceous earth	61790-53-2	Not classified	> 1

**Further information**

Permethrin	52645-53-1	M-Factor: 1.000 (acute), 1.000 (chronic)
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For the full text of the H-Statements mentioned in this Section, see Section 16.

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<b>General advice</b>	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
<b>Inhalation</b>	Move to fresh air. Move the victim to fresh air and keep at rest. Call a physician or poison control center immediately.
<b>Skin contact</b>	Immediately wash with plenty of soap and water for at least 15 minutes. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. In case of skin irritation, application of oils or lotions containing vitamin E may be considered. If symptoms persist, call a physician.
<b>Eye contact</b>	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. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. Apply soothing eye drops, if needed anaesthetic eye drops. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. Call a physician or poison control center immediately.

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

<b>Symptoms</b>	Local:, Skin and eye paraesthesia which may be severe, Usually transient with resolution within 24 hours, Skin, eye and mucous membrane irritation, Cough, Sneezing  Systemic:, discomfort in the chest, tachycardia, Hypotension, Nausea, Abdominal pain, Diarrhoea, Vomiting, Dizziness, Blurred vision, Headache, Anorexia, Somnolence, Coma, Convulsions, Tremors, Prostration, Airway hyperreaction, Pulmonary oedema, Palpitation, Muscular fasciculation, Apathy
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**4.3 Indication of any immediate medical attention and special treatment needed**

<b>Risks</b>	This product contains a pyrethroid. Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.
<b>Treatment</b>	Local treatment: Initial treatment: symptomatic.  Systemic treatment: Initial treatment: symptomatic. Monitor: respiratory and cardiac functions. 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. Keep respiratory tract clear. Oxygen or artificial respiration if needed. In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens. If not effective, phenobarbital may be used. Contraindication: atropine. Contraindication: derivatives of adrenaline. There is no specific antidote. Recovery is spontaneous and without sequelae. In case of skin irritation, application of oils or lotions containing vitamin E may be considered.



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**SECTION 5: FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

**Suitable** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 Special hazards arising from the substance or mixture** Dangerous gases are evolved in the event of a fire.

**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.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

**Precautions** Avoid dust formation. 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.

**6.3 Methods and materials for containment and cleaning up**

**Methods for cleaning up** Avoid dust formation and electrical charging (sparking) because dust explosion might occur. Use mechanical handling equipment. Clean contaminated floors and objects thoroughly, observing environmental regulations. Collect and transfer the product into a properly labelled and tightly closed container.

**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.

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**SECTION 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

**Advice on safe handling** Avoid dust formation. Ensure adequate ventilation.

**Advice on protection against fire and explosion** Dust may form explosive mixture in air. Keep away from heat and sources of ignition.

**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**

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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 feedingstuffs.

**Suitable materials**

Aluminium composite film (min. 0,007 mm Aluminium)

**7.3 Specific end use(s)**

Refer to the label and/or leaflet.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Permethrin	52645-53-1	10 mg/m <sup>3</sup> (STEL)	1995	ZA REL
Permethrin	52645-53-1	5 mg/m <sup>3</sup> (TWA)	1995	ZA REL
Permethrin	52645-53-1	10 mg/m <sup>3</sup> (SK-SEN)		OES BCS*
Kaolin (Total dust.)	1332-58-7	10 mg/m <sup>3</sup> (TWA)	1995	ZA REL
Kaolin (Respirable dust.)	1332-58-7	5 mg/m <sup>3</sup> (TWA)	1995	ZA REL
Diatomaceous earth (Respirable dust.)	61790-53-2	1,5 mg/m <sup>3</sup> (TWA)	1995	ZA REL

\*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

**8.2 Exposure controls****Respiratory protection**

Wear respirator with a particle filter mask (protection factor 4) conforming to European norm EN149FFP1 or equivalent. 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
Directive	Protective gloves complying with EN 374.

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<b>Eye protection</b>	Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).
<b>Skin and body protection</b>	Wear standard coveralls and Category 3 Type 5 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.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

<b>Form</b>	powder
<b>Colour</b>	white to light grey
<b>Bulk density</b>	ca. 0,500 g/ml (bulk density tapped)
<b>Water solubility</b>	miscible
<b>Partition coefficient: n-octanol/water</b>	Permethrin: log Pow: 5,95

<b>9.2 Other information</b>	Further safety related physical-chemical data are not known.
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**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity**

<b>Thermal decomposition</b>	Stable under normal conditions.
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<b>10.2 Chemical stability</b>	Stable under recommended storage conditions.
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<b>10.3 Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
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<b>10.4 Conditions to avoid</b>	Extremes of temperature and direct sunlight.
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<b>10.5 Incompatible materials</b>	Store only in the original container.
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<b>10.6 Hazardous decomposition products</b>	No decomposition products expected under normal conditions of use.
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**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects**

<b>Acute oral toxicity</b>	LD50 (Rat) > 2.000 mg/kg
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<b>Acute inhalation toxicity</b>	LC50 (Rat) > 4,10 mg/l Exposure time: 4 h Determined in the form of a respirable fine dust. Highest attainable concentration.
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<b>Acute dermal toxicity</b>	LD50 (Rat) > 1.000 mg/kg
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<b>Skin corrosion/irritation</b>	No skin irritation (Rabbit)
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<b>Serious eye damage/eye irritation</b>	Slight irritant effect - does not require labelling. (Rabbit)
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OECD Test Guideline 406, Magnusson & Kligman test**Assessment STOT Specific target organ toxicity – single exposure**

Permethrin: Based on available data, the classification criteria are not met.

**Assessment STOT Specific target organ toxicity – repeated exposure**

Permethrin did not cause specific target organ toxicity in experimental animal studies.

**Assessment mutagenicity**

Permethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Assessment carcinogenicity**

Permethrin caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Liver, Lungs. The mechanism that triggers tumours in rodents is not relevant for the low exposures encountered under normal use conditions.

**Assessment toxicity to reproduction**

Permethrin did not cause reproductive toxicity in a two-generation study in rats.

**Assessment developmental toxicity**

Permethrin did not cause developmental toxicity in rats and rabbits.

**Aspiration hazard****||**Based on available data, the classification criteria are not met.**Further information**

Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hours).

The toxicological data refer to a similar formulation.

**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity****Toxicity to fish**LC50 (Poecilia reticulata (guppy)) 0,0076 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient permethrin.**Toxicity to aquatic invertebrates**EC50 (Daphnia magna (Water flea)) 0,00017 mg/l  
Exposure time: 48 h  
The value mentioned relates to the active ingredient permethrin.**Toxicity to aquatic plants**EC50 (Raphidocelis subcapitata (freshwater green alga)) 0,497 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient permethrin.**12.2 Persistence and degradability****Biodegradability**Permethrin:  
Not rapidly biodegradable**Koc**

Permethrin: Koc: 100000

**12.3 Bioaccumulative potential****Bioaccumulation**Permethrin: Bioconcentration factor (BCF) 300  
Does not bioaccumulate.



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**12.4 Mobility in soil**

**Mobility in soil** Permethrin: Immobile in soil

**12.5 Results of PBT and vPvB assessment**

**PBT and vPvB assessment** Permethrin: 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.

**Contaminated packaging** Not completely emptied packagings should be disposed of as hazardous waste.

**SECTION 14: TRANSPORT INFORMATION**

**SANS 10231**

14.1 UN number	<b>3077</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PERMETHRIN MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES

**IMDG**

14.1 UN number	<b>3077</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PERMETHRIN MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Marine pollutant	YES

**IATA**

14.1 UN number	<b>3077</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PERMETHRIN MIXTURE )
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES

**14.6 Special precautions for user**

See sections 6 to 8 of this Safety Data Sheet.



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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****Further information**

WHO-classification: III (Slightly hazardous)

**SECTION 16: OTHER INFORMATION****Text of the hazard statements mentioned in Section 3**

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
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
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
TWA	Time weighted average
UN	United Nations
WHO	World health organisation



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The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

**Reason for Revision:** The following sections have been revised: Section 8: Exposure Controls / Personal Protection. Section 16: Other Information.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.