



## SAFETY DATA SHEET

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### Tyrant 50/50 SE (HSE No.:7335)

Revision 3  
Revision date 15-Sep-2008

#### 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

**Product name** Tyrant 50/50 SE  
**Company** PelGar International Ltd  
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**Fax** Fax +44 (0) 1420 80733  
**Emergency telephone number** Tel +44 (0) 1420 80744  
**Product code** 409  
**Intended use** Insecticide for professional use only.

#### 2 HAZARDS IDENTIFICATION.

**Main hazards** Harmful if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. May cause tingling or numbness in exposed areas (paraesthesia)

#### 3 . COMPOSITION / INFORMATION ON INGREDIENTS.

##### Hazardous ingredients

	Conc.	CAS	EINECS	Symbols/Risk phrases
propane-1,2-diol	1-10%	57-55-6	200-338-0	
Tetramethrin	4.9%	7695-12-0	231-711-6	N
Solvent Naphtha (petroleum), Heavy aromatic	1-10%	64742-94-5	268-198-5	N;R51/53 Xn;R65 R66 R67
Silicon dioxide	1-10%	7631-86-9	231-545-4	
C9 - C11 alcohol with 8 moles of ethylene oxide	1-10%	68439-45-2		Xn;R22 Xi;R41
a-Cypermethrin	4.9%	67375-30-8	257-842-9	T; R25 Xn; R48/22 Xi; R37 N; R50/53
1,2-Benzisothiazolin-3-one	<0.05%	2634-33-5	220-120-9	Xn; R22 Xi; R38-41 R43 N; R50

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## 4. FIRST AID MEASURES

<b>Skin contact</b>	May cause skin irritation in susceptible persons. Remove contaminated clothing. Wash off immediately with plenty of soap and water. If irritation persists obtain medical attention. Contaminated clothing should be washed and dried before re-use.
<b>Eye contact</b>	May cause eye irritation of susceptible persons. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. If irritation persists obtain medical attention.
<b>Inhalation</b>	Inhalation of mist or spray, may cause irritation of the respiratory system. Move the exposed person to fresh air. Obtain medical advice immediately.
<b>Ingestion</b>	Harmful if swallowed. DO NOT INDUCE VOMITING. If conscious give a small amount of water to drink and obtain medical attention.
<b>General information</b>	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Contains a synthetic pyrethroid that can cause skin and eye irritation and paraesthesia (tingling and numbness in exposed areas).

## 5. FIRE FIGHTING MEASURES

<b>Extinguishing media</b>	Keep fire exposed containers cool by spraying with water if exposed to fire. Fight surrounding fire with dry chemical, foam or water spray.
<b>Fire hazards</b>	This product is not flammable. However, toxic fumes may be evolved in the event of fire.
<b>Protective equipment</b>	In the event of fire. Wear: Self-contained breathing apparatus, a chemical protection suit, suitable gloves and boots.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Wear suitable protective clothing, gloves and eye/face protection. See section 8.
<b>Environmental precautions</b>	Prevent further spillage if safe. Contain or absorb leaking liquid with earth or sand. Do not allow product to enter drains. If substance has entered a watercourse or sewer or contaminated soil or vegetation, inform the appropriate authority.
<b>Clean up methods</b>	Absorb with inert, absorbent material. Transfer to a suitably labelled container. Subsequently, wash the contaminated area with water, or detergent and water, taking care to prevent the washings from entering surface water drains.

## 7. HANDLING AND STORAGE

<b>Handling</b>	If splashing is likely to occur wear approved eye protection. If spray mists are likely, wear a suitable approved respirator. If skin contact is likely to occur wear rubber gloves and suitable impervious protective clothing. Use in a well ventilated area where possible. Always use good personal hygiene procedures when handling chemicals. Do not smoke eat or drink while handling this product. Wash hands, face and exposed skin after using, and before eating, drinking or smoking. Read the label before use.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food and animal feedstuffs.
<b>Specific use</b>	Insecticide for professional use only.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure limits

propane-1,2-diol (Propane-1,2-diol particulates)	WEL 8-hr limit ppm: - WEL 15 min limit ppm: -	WEL 8-hr limit mg/m <sup>3</sup> : 10 WEL 15 min limit mg/m <sup>3</sup> : -
propane-1,2-diol (Propane-1,2-diol total vapour and particulates)	WEL 8-hr limit ppm: 150 WEL 15 min limit ppm: -	WEL 8-hr limit mg/m <sup>3</sup> : 474 WEL 15 min limit mg/m <sup>3</sup> : -
Solvent Naphtha (petroleum), Heavy aromatic	WEL 8-hr limit ppm: 25 (for trimethyl benzene) WEL 15 min limit ppm:	WEL 8-hr limit mg/m <sup>3</sup> : 125 for(trimethyl benzene) WEL 15 min limit mg/m <sup>3</sup> :
Silicon dioxide	WEL 8-hr limit ppm: WEL 15 min limit ppm:	WEL 8-hr limit mg/m <sup>3</sup> : 6 total dust, 2.4 respirable dust WEL 15 min limit mg/m <sup>3</sup> :

**Respiratory protection** Suitable approved respirator if exposed to spray mists.

**Hand protection** Rubber or plastic gloves.

**Eye protection** If splashes are likely to occur, wear: approved safety goggles.

**Protective equipment** Impervious clothing. Boots.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Description</b>	Liquid.
<b>Colour</b>	White.
<b>Odour</b>	Characteristic.
<b>pH</b>	Not available
<b>Boiling point</b>	No data
<b>Flash point</b>	Not Applicable
<b>Explosive</b>	Not applicable
<b>Oxidising</b>	Not applicable
<b>Relative density</b>	1.05 - 1.35
<b>Water solubility</b>	miscible.
<b>Partition coefficient</b>	No data
<b>Melting point</b>	No data
<b>Autoignition temperature</b>	Not applicable

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under normal conditions.
<b>Conditions to avoid</b>	Heat, sparks and open flames.
<b>Hazardous decomposition products</b>	Combustion or thermal decomposition will produce toxic and irritant fumes.

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## 11. TOXICOLOGICAL INFORMATION

### Toxicological information

a-Cypermethrin	Dermal Rat LD50 = > 2000 mg/kg Oral Rat LD50 = 339.9 mg/kg Dermal Rabbit LD50 = > 2000 mg/kg
Tetramethrin	Dermal Rat LD50 = > 2000 mg/kg Oral Rat LD50 = > 5000 mg/kg

<b>Acute toxicity</b>	ORL RAT LD50 > 2000 mg/kg (calculated). DERMAL RAT LD50 > 5000 mg/kg (rat). (calculated).
<b>Corrosivity</b>	No irritation expected.
<b>Sensitization</b>	May cause sensitisation of susceptible persons by skin contact or by inhalation of spray mist.
<b>Repeated or prolonged exposure</b>	Prolonged or repeated exposure may cause irritation to skin and mucous membranes.
<b>Mutagenic effects</b>	Not available.
<b>Carcinogenic effects</b>	Not available.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
a-Cypermethrin	Daphnia EC50/48h = 0.0003 mg/l Rainbow trout LC50/96h = 0.0028 mg/l
Tetramethrin	Daphnia EC50/48h = 0.110 mg/l Rainbow trout LC50/96h = 0.016 mg/l Bluegill sunfish LC50/96h = 0.016 mg/l
<b>Further information</b>	This product must not enter water discharge system. Inform appropriate authority if large spillage enters drains.

## 13. DISPOSAL CONSIDERATIONS

<b>General information</b>	Dispose of as special waste in compliance with local and national regulations.
<b>Disposal of packaging</b>	Empty containers can be sent to landfill after cleaning, if in compliance with local and national regulations.

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UN 3082

Class 9

Packing group III

Hazard ID 90

**Proper Shipping Name** ENVIRONMENTALLY  
HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S, (contains alpha-  
cypermethrin, tetramethrin).

**IMDG**

UN 3082

Class 9

EmS Code F-A S-F

Packing group III  
Marine pollutant YES

**IATA**

UN 3082

Class 9

Packing Instruction 914

(Cargo)

Packing Instruction 914


(Passenger)

Packing group III  
Subsidiary risk -  
Maximum quantity 450 L  
Maximum quantity 450 L

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## 15. REGULATORY INFORMATION

<b>Symbols</b>	Xn - Harmful; N - Dangerous for the environment 
<b>Risk phrases</b>	R22 - Harmful if swallowed. R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>Safety phrases</b>	To avoid risks to man and the environment, comply with the instructions for use. S23 - Do not breathe gas/fumes/vapour/spray. S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S29 - Do not empty into drains. S37/39 - Wear suitable gloves and eye/face protection. S38 - In case of insufficient ventilation, wear suitable respiratory equipment. S60 - This material and its container must be disposed of as hazardous waste. S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.
<b>Statutory Conditions relating to use</b>	The (COSHH) Control of Substances Hazardous to Health Regulations 2002 may apply to the use of this product at work. Maximum Dose, 60 ml per 5 litres water per 100 square metres sprayable surface. Engineering control of operator exposure must be used where reasonably practicable in addition to the following items of personal protective equipment. Wear suitable protective clothing (coveralls) and synthetic rubber/pvc gloves when using. Avoid excessive contamination of coveralls and launder regularly. Do not breathe the spray mist. Otherwise wear respiratory protective equipment and eye protection (see HSE Guidance Booklet HS (G) 53: "Respiratory Protective Equipment - a practical guide for users"). However, engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection. Do not contaminate foodstuffs, eating utensils or food contact surfaces. Cover water storage tanks before application. This material and its container must be disposed of in a safe way. When using do not eat, drink or smoke. Exclude all persons and animals during treatment. Do not apply directly to animals. Extremely dangerous to fish and other aquatic life. Remove or cover fish tanks and bowls before application. Do not contaminate watercourses. Hazardous to bees. Protect milk machinery and milk containers from contamination. Do not apply directly to livestock and poultry. <b>READ ALL PRECAUTIONS BEFORE USE.</b>

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## 16. OTHER INFORMATION

<b>Text of risk phrases in Section 3.</b>	R22 - Harmful if swallowed. R25 - Toxic if swallowed. R37 - Irritating to respiratory system. R38 - Irritating to skin. R41 - Risk of serious damage to eyes. R43 - May cause sensitisation by skin contact. R48/22 - Harmful: danger of serious damage to health by prolonged exposure if swallowed. R50 - Very toxic to aquatic organisms. R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R65 - Harmful: may cause lung damage if swallowed. R66 - Repeated exposure may cause skin dryness or cracking. R67 - Vapours may cause drowsiness and dizziness.
<b>Restricted use</b>	Insecticide for professional use only.
<b>Data sources</b>	CHIP 2002 EH40 Raw material suppliers Safety Data Sheets.
<b>Replaces</b>	Revision 2. Changes to section 2, 3, 4, 11, 12, 13, 14 15 and 16