

SAFETY DATA SHEET



Section 1 - Identification

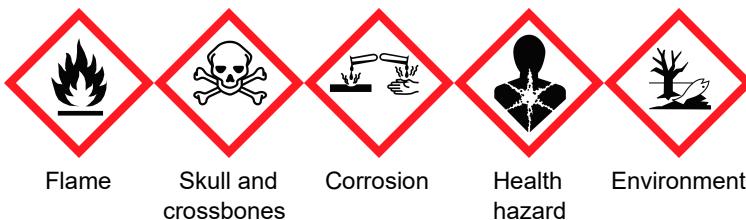
Product identifier	Supona® Buffalo Fly Insecticide
Other means of identification	
Synonyms	SUPONA * Chlorfenvinphos solution
Recommended use of the chemical and restrictions on use	
Recommended use	Veterinary product used as Organophosphate insecticide.
Restrictions on use	Not for human use.
Details of manufacturer or importer	
Company Name (AU)	Zoetis Australia Pty Ltd
	ABN 94 156 476 425
	Level 6, 5 Rider Boulevard
	Rhodes NSW 2138 AUSTRALIA
Tel	1800 814 883
Fax	(02) 8876 0444
Email	productsupport.au@zoetis.com
Emergency Phone	1800 814 883 (all hours)
Police and Fire Brigade	Dial 000
If ineffective	Dial Poisons Information Centre (13 1126 from anywhere in Australia)

Section 2 - Hazard(s) identification

Classification of the hazardous chemical

Physical hazards	Flammable liquids	Category 3
Health hazards	Acute toxicity, oral	Category 2
	Acute toxicity, dermal	Category 2
	Acute toxicity, inhalation	Category 2
	Skin corrosion/irritation	Category 1C
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
	Specific target organ toxicity following single exposure	Category 2 (nervous system)
	Specific target organ toxicity following single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity following single exposure	Category 3 narcotic effects
	Specific target organ toxicity following repeated exposure	Category 2 (adrenal gland, nervous system)
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1

Label elements, including precautionary statements

Hazard symbol(s)**Signal word**

Danger

Hazard statement(s)

Flammable liquid and vapour. Fatal if swallowed. May be fatal if swallowed and enters airways. Fatal in contact with skin. Causes severe skin burns and eye damage. May cause respiratory irritation. May cause drowsiness or dizziness. Very toxic to aquatic life with long lasting effects. May cause an allergic skin reaction. May cause damage to organs (nervous system). May cause damage to organs (adrenal gland, nervous system) through prolonged or repeated exposure.

Precautionary statement(s)**Prevention**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe mist/vapours. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response

IF SWALLOWED: Immediately call a POISON CENTRE/doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTRE or doctor/physician. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTRE/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage. If skin irritation or rash occurs: Get medical advice/attention.

Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental information

May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. Organophosphate insecticide.

Other hazards which do not result in classification

None known.

Section 3 - Composition and information on ingredients**Mixture**

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients (%)
PETROLEUM SOLVENT (C8-C10)	64742-95-6	60 - 70
Chlorfenvinphos Technical	470-90-6	22.6
Chlorocresol	59-50-7	5
4-nonylphenol, Branched, Ethoxylated	127087-87-0	1 - 3
Calcium dodecylbenzenesulfonate	26264-06-2	1 - 3
Methyloxirane Polymer With Oxirane, Mono (nonylphenyl) Ether	37251-69-7	1 - 3
n-butanol	71-36-3	1 - 3

Section 4 - First aid measures**Description of necessary first aid measures****Inhalation**

Move to fresh air. For breathing difficulties, oxygen may be necessary. Call a physician or poison control centre immediately.

Skin contact	Take off immediately all contaminated clothing. Wash the skin immediately with soap and water. Call a physician or poison control centre immediately. Chemical burns must be treated by a physician. Wash clothing separately before reuse.
Eye contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Continue rinsing. Call a physician or poison control centre immediately.
Ingestion	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Rinse mouth. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Personal protection for first-aid responders	Take off contaminated clothing and shoes immediately. In case of shortness of breath, give oxygen. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. Discard any shoes or clothing items that cannot be decontaminated. For personal protection, see section 8 of the SDS. You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.
	Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.
Symptoms caused by exposure	Aspiration may cause pulmonary oedema and pneumonitis. May cause drowsiness or dizziness. Narcosis. Headache. Behavioural changes. Decrease in motor functions. Burning pain and severe corrosive skin damage. Causes serious eye damage. Permanent eye damage including blindness could result. May cause respiratory irritation. Rash. Dermatitis. Prolonged exposure may cause chronic effects. May cause central nervous system effects. Signs and symptoms might include skin rash, itching, redness or swelling. Effects of organophosphate exposure include tightness in chest, difficulty breathing, wheezing, increased tearing and salivation, sweating, frequent urination, constriction of pupils, nausea, vomiting, abdominal cramps, diarrhea, fatigue, weakness, involuntary twitching, pallor, decreased heart rate, and decreased blood pressure. Additional nervous system effects include headache, restlessness, slurred speech, tremors, loss of reflexes, and incoordination. Gross overexposure may result in convulsions, seizures, coma, or death due to respiratory failure. Effects can be immediate or delayed.
Medical attention and special treatment	Organophosphate insecticide. Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim under observation. Monitor respiratory, cardiac and central nervous system. Symptoms may be delayed.

Section 5 - Firefighting measures

Specific hazards arising from the chemical	Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for fire fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Hazchem code	3W
General fire hazards	Flammable liquid and vapour. Vapors will form flammable or explosive mixtures with air at room temperature. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Fine particles (such as mists) may fuel fires/explosions. Flammable Category 3 (GHS); Flammable (AS1940)
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
Extinguishing media	
Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Section 6 - Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Keep unnecessary personnel away.
For emergency responders	Keep unnecessary personnel away. Keep upwind. Wear appropriate protective equipment and clothing during clean-up. Ventilate the contaminated area. Ensure adequate ventilation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not breathe mist or vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not get in eyes, on skin, or on clothing. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Avoid discharge into drains, water courses or onto the ground.
Methods and materials for containment and cleaning up	Avoid release to the environment. Use water spray to reduce vapours or divert vapour cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Use only non-sparking tools. Ensure adequate ventilation. Prevent entry into waterways, sewer, basements or confined areas.
	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Ground container and transfer equipment to eliminate static electric sparks. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Clean surface thoroughly to remove residual contamination.
	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Section 7 - Handling and storage

Precautions for safe handling

Obtain special instructions before use. Flammable liquid and vapour. Do not handle until all safety precautions have been read and understood. Very toxic. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground container and transfer equipment to eliminate static electric sparks. Use non-sparking tools when opening or closing containers. Do not get in eyes, on skin, or on clothing. Do not breathe mist or vapour. Do not taste or swallow. Use this product with adequate ventilation. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear personal protective equipment. Wash thoroughly after handling. Avoid release to the environment. Do not empty into drains. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in a place accessible by authorised persons only. Store below 30°C (86°F). Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Use appropriate container to avoid environmental contamination. Do not allow material to freeze. Keep away from food, drink and animal feeding stuffs. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS). Store in tightly closed original container in a dry, cool and well-ventilated place. < 30C/86F.

Section 8 - Exposure controls and personal protection

Control parameters

Follow standard monitoring procedures.

Occupational exposure limits

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Components	Type	Value
n-butanol (CAS 71-36-3)	Ceiling	152 mg/m ³
		50 ppm

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value
n-butanol (CAS 71-36-3)	TWA	20 ppm

UK. OELs. Workplace Exposure Limits (WELs) (EH40/2005 (Fourth Edition 2020)), Table 1

Components	Type	Value
n-butanol (CAS 71-36-3)	STEL	154 mg/m ³ 50 ppm

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as updated

Components	Type	Value
n-butanol (CAS 71-36-3)	TWA	310 mg/m ³ 100 ppm

Biological limit values**Germany. TRGS 903, BAT List (Biological Limit Values)**

Components	Value	Determinant	Specimen	Sampling Time
Chlorfenvinphos Technical (CAS 470-90-6)	70 %	Acetylcholinesterase	Reduction from individual baseline activity in red blood cells	*
n-butanol (CAS 71-36-3)	2 mg/g	1-Butanol (nach Hydrolyse)	Urine	*
	10 mg/g	1-Butanol (nach Hydrolyse)	Urine	*

* - For sampling details, please see the source document.

Control banding approach

Chlorfenvinphos: Zoetis OEB 4 - Skin (control exposure to the range of >1ug/m³ to <10ug/m³, provide additional precautions to protect from skin contact)

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. Provide adequate general and local exhaust ventilation. Keep air contamination levels below the exposure limits or within the OEB range listed above in this section.

Individual protection measures, for example personal protective equipment (PPE)

Eye/face protection Chemical goggles and face shield are recommended.

Skin protection

Hand protection Impervious gloves. Wear impervious, disposable gloves as minimum protection (double recommended).

Other

Avoid exposure - obtain special instructions before use. Wear appropriate chemical resistant clothing. Wear impervious protective clothing to prevent skin contact - consider use of disposable clothing where appropriate.

Respiratory protection

Avoid exposure - obtain special instructions before use. Chemical respirator with organic vapour cartridge, full facepiece, dust and mist filter. Respiratory protection should be provided in instances where exposure to dust, mists, aerosols or vapors are likely. If airborne exposures are within or exceed the OEB, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEB range. Respiratory protection should be worn to supplement engineering controls when handling this compound.

Thermal hazards

Not applicable.

Hygiene measures	Observe any medical surveillance requirements. Strict control of access to the working area is essential. Do not get in eyes, on skin, or clothing. When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.
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Section 9 - Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Colour	Amber
Odour	Mild Solvent
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 160 - < 170 °C (> 320 - < 338 °F) @ 1 atm.
Flash point	43.0 °C (109.4 °F)
Evaporation rate	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flammability (solid, gas)	Flammable liquid.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other physical and chemical parameters	
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
Specific gravity	0.96

Section 10 - Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, spark, open flames and other sources of ignition. Protect from sunlight. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Bases. Strong oxidising agents. Combustible material. Alkali metals.
Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Carbon oxides. Oxides of phosphorus. Chlorine compounds. May include hydrogen chloride.

Section 11 - Toxicological information

Information on possible routes of exposure

Inhalation Fatal if inhaled. May cause damage to organs by inhalation. May cause drowsiness or dizziness. Headache. Nausea, vomiting.

Skin contact Causes severe skin burns. May cause an allergic skin reaction. Fatal in contact with skin. May be absorbed through the skin and cause systemic effects.

Calcium dodecylbenzenesulfonate Severity: Moderate

Chlorfenvinphos Technical Species: Guinea Pig
Severity: Non-irritating

n-butanol Species: Rabbit
Severity: Irritant

Chlorfenvinphos Technical Species: Rabbit
Severity: Non-irritating

Chlorocresol Species: Rabbit
Severity: Slight

Eye contact Causes serious eye damage.

Calcium dodecylbenzenesulfonate Severity: Severe

Chlorocresol Species: Rabbit
Severity: Severe

n-butanol Species: Rabbit
Severity: Severe

Ingestion Fatal if swallowed. Causes digestive tract burns. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to exposure Aspiration may cause pulmonary oedema and pneumonitis. May cause drowsiness or dizziness. Narcosis. Headache. Nausea, vomiting. Behavioural changes. Decrease in motor functions. Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause skin irritation. May cause respiratory irritation. May cause central nervous system effects. Signs and symptoms might include skin rash, itching, redness or swelling. Prolonged exposure may cause chronic effects. Effects of organophosphate exposure include tightness in chest, difficulty breathing, wheezing, increased tearing and salivation, sweating, frequent urination, constriction of pupils, nausea, vomiting, abdominal cramps, diarrhea, fatigue, weakness, involuntary twitching, pallor, decreased heart rate, and decreased blood pressure. Additional nervous system effects include headache, restlessness, slurred speech, tremors, loss of reflexes, and incoordination. Gross overexposure may result in convulsions, seizures, coma, or death due to respiratory failure. Effects can be immediate or delayed.

Acute toxicity Fatal if inhaled. Fatal in contact with skin. Fatal if swallowed.

Product	Species	Test Results
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Supona® Buffalo Fly Insecticide

Acute

Dermal

LD50 Rat 155 mg/kg (Calculated ATE)

Inhalation

LC50 Rat 0.25 mg/l (Calculated ATE)

Oral

LD50 Rat 50 mg/kg (Calculated ATE)

Components	Species	Test Results
Chlorfenvinphos Technical (CAS 470-90-6)		
<u>Acute</u>		
Dermal		
LD50	Rat	31 - 108 mg/kg
Inhalation		
LC50	Rat	0.05 mg/l, 4 Hours
Oral		
LD50	Rat	10 mg/kg
<u>Chronic</u>		
Oral		
LOEL	Rat	0.5 mg/kg/day, 2 years Cholinesterase inhibition
NOEL	Mouse	0.15 mg/kg/day, 90 weeks Cholinesterase inhibition
<u>Subacute</u>		
Dermal		
NOEL	Guinea pig	0.1 mg/kg/day, 14 days Cholinesterase inhibition
<u>Subchronic</u>		
Oral		
NOAEL	Rat	0.05 mg/kg/day, 12 weeks Cholinesterase inhibition
Chlorocresol (CAS 59-50-7)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 5000 mg/kg
Oral		
LD50	Mouse	608 mg/kg
	Rat	>= 500 mg/kg
		3636 mg/kg
<u>Chronic</u>		
Oral		
LOEL	Rat	400 ppm, 24 months (Target organs: Brain, Kidney)
<u>Subacute</u>		
Oral		
NOEL	Rat	200 mg/kg/day, 28 days (Target organs: None identified)
<u>Subchronic</u>		
Oral		
NOEL	Rat	> 120 mg/kg/day, 13 weeks (No effects at maximum dose)
n-butanol (CAS 71-36-3)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	3400 mg/kg
Oral		
LD50	Rat	0.79 - 4.36 g/kg 2292 mg/kg

Skin corrosion/irritation	Causes severe skin burns and eye damage.
Corrosivity	
Calcium dodecylbenzenesulfonate	Result: Irritant Severity: Moderate
Chlorfenvinphos Technical	Species: Guinea pig Severity: Non-irritating
	Species: Rabbit Severity: Non-irritating
Serious eye damage/irritation	Causes serious eye damage.
Eye contact	
Calcium dodecylbenzenesulfonate	Severity: Severe
Chlorocresol	Species: Rabbit Severity: Severe
n-butanol	Species: Rabbit Severity: Severe
Respiratory or skin sensitisation	
Respiratory sensitisation	Not a respiratory sensitiser.
Skin sensitisation	May cause an allergic skin reaction.
Skin Sensitisation	
Chlorocresol	Species: Guinea Pig Severity: positive
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Mutagenicity	
Chlorfenvinphos Technical	Chromosome Aberration Result: Negative Species: Hamster Bone marrow
	Dominant Lethal Assay Result: Negative Species: Mouse
	In Vitro Bacterial Mutagenicity (Ames) Result: Negative Species: Salmonella , E. coli
Chlorocresol	In Vitro Bacterial Mutagenicity (Ames) Result: Negative Species: Salmonella
	In Vitro Unscheduled DNA Synthesis Result: Negative Species: Rat Hepatocyte
	In Vivo Micronucleus Result: Negative Species: Mouse
Carcinogenicity	Risk of cancer cannot be excluded with prolonged exposure.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Chlorocresol (CAS 59-50-7)	2B Possibly carcinogenic to humans.
PETROLEUM SOLVENT (C8-C10) (CAS 64742-95-6)	3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.		
Developmental effects			
Chlorocresol	100 mg/kg/day	Embryo / Fetal Development, Fetotoxicity	Developmental toxicity
		Result: NOEL	Species: Rat
		Organ: Oral	
Chlorfenvinphos Technical	3 mg/kg/day	Embryo / Fetal Development, Not Teratogenic	
		Result: NOEL	Species: Rat
		Organ: Oral	
Reproductivity			
Chlorfenvinphos Technical	0.05 mg/kg/day	2 Generation Reproductive Toxicity, Embryotoxicity	
		Result: NOAEL	Species: Rat
		Organ: Oral	
Specific target organ toxicity - single exposure	May cause damage to organs (nervous system). May cause respiratory irritation. May cause drowsiness or dizziness.		
Specific target organ toxicity - repeated exposure	May cause damage to organs (adrenal gland, nervous system) through prolonged or repeated exposure.		
Aspiration hazard	May be fatal if swallowed and enters airways.		
Chronic effects	Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.		
Other information	Danger of very serious irreversible effects. Avoid exposure - obtain special instructions before use. Organophosphate insecticide.		

Section 12 - Ecological information

Ecotoxicity	Avoid release to the environment. Very toxic to aquatic life with long lasting effects.		
Components	Species		Test Results
Chlorfenvinphos Technical (CAS 470-90-6)			
Aquatic			
Crustacea	EC50	Daphnia magna (Water Flea)	0.0003 mg/l, 48 Hours
Fish	LC50	Fish	0.039 mg/l, 96 Hours (Tilapia)
		Oncorhynchus mykiss (rainbow trout)	0.025 mg/l, 96 Hours (Carp)
			0.1 mg/l, 96 Hours
Acute			
Fish	LC50	Bluegill (Lepomis macrochirus)	0.017 - 0.031 mg/l, 96 hours
Chlorocresol (CAS 59-50-7)			
Aquatic			
Algae	EC50	Algae	12 mg/l, Hours ErC50
		Scenedesmus subspicatus (Green Alga)	> 10 mg/l, 72 Hours
Crustacea	EC50	Daphnia magna (Water Flea)	4.4 mg/l, Hours
Fish	LC50	Oncorhynchus mykiss (rainbow trout)	0.92 mg/l, 96 Hours
		Pimephales promelas (Fathead Minnow)	4.2 mg/l, 96 Hours
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	1.13 - 1.94 mg/l, 48 hours

Components	Species	Test Results
Fish	LC50 Fathead minnow (Pimephales promelas)	1 - 10 mg/l, 96 hours
n-butanol (CAS 71-36-3)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50 Water flea (Daphnia magna)	1897 - 2072 mg/l, 48 hours
Fish	LC50 Bluegill (Lepomis macrochirus)	100 - 500 mg/l, 96 hours
Persistence and degradability	No data available for this product.	
Bioaccumulative potential	No data available for this product. The following information is available for the individual ingredients. See below.	
Partition coefficient		
n-octanol / water (log Kow)		
Chlorfenvinphos Technical		3.82
Mobility in soil	No data available for this product.	
Other adverse effects	Contains: SVHC: Substance of Very High Concern.	

Section 13 - Disposal considerations

Disposal methods	Avoid release to the environment. Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.
Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Section 14 - Transport information

ADG	
UN number	UN3017
UN proper shipping name	Organophosphorous pesticide, liquid, toxic, flammable (Chlorfenvinphos Technical, C9 Aromatic Hydrocarbon)
Transport hazard class(es)	
Class	6.1
Subsidiary hazard	3
Packing group	II
Environmental hazards	Yes
Hazchem code	3W
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
RID	
UN number	UN3017
UN proper shipping name	Organophosphorous pesticide, liquid, toxic, flammable (Chlorfenvinphos Technical, C9 Aromatic Hydrocarbon)
Transport hazard class(es)	
Class	6.1
Subsidiary hazard	3
Packing group	II
Environmental hazards	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

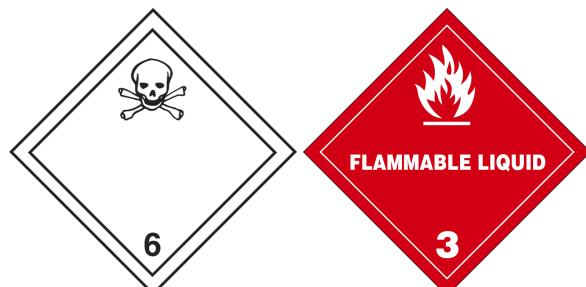
IATA

UN number	UN3017
UN proper shipping name	Organophosphorous pesticide, liquid, toxic, flammable (Chlorfenvinphos Technical, C9 Aromatic Hydrocarbon)
Transport hazard class(es)	
Class	6.1
Subsidiary hazard	3
Packing group	II
Environmental hazards	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN3017
UN proper shipping name	Organophosphorous pesticide, liquid, toxic, flammable (Chlorfenvinphos Technical, C9 Aromatic Hydrocarbon), MARINE POLLUTANT
Transport hazard class(es)	
Class	6.1
Subsidiary hazard	3
Packing group	II
Environmental hazards	
Marine pollutant	Yes
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

ADG

IATA; IMDG; RID



Marine pollutant



General information Marine pollutant requirements apply only to quantities >5 Liters for liquids / >5 Kilograms for solids (per inner package) when shipped as per IMDG or ADR (effective year 2015 or greater) regulations. Please refer to the applicable dangerous goods regulations for additional information. Transport according to the requirements of the appropriate regulatory body.

Section 15 - Regulatory information

Safety, health and environmental regulations

National regulations This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals.

APVMA No. 45594

Poison Schedule (Product) – Schedule 7

Australia Medicines & Poisons Appendix E

Chlorocresol (CAS 59-50-7)
n-butanol (CAS 71-36-3)

Australia Medicines & Poisons Appendix F

n-butanol (CAS 71-36-3)

Australia Medicines & Poisons Schedule 4

Chlorfenvinphos (CAS 470-90-6)

Australia Medicines & Poisons Schedule 5

Chlorocresol (CAS 59-50-7)
n-butanol (CAS 71-36-3)

Australia Medicines & Poisons Schedule 6

n-butanol (CAS 71-36-3)

Australia Medicines & Poisons Schedule 7

Chlorfenvinphos (CAS 470-90-6)

High Volume Industrial Chemicals (HVIC)

n-butanol (CAS 71-36-3) 1000 - 9999 TONNES See the regulation for additional information.

PETROLEUM SOLVENT (C8-C10) (CAS 64742-95-6) 10000 - 99999 TONNES See the regulation for additional information.

Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10, as amended)

Not listed.

National Pollutant Inventory (NPI) substance reporting list

Not listed.

Prohibited Carcinogenic Substances

Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

Restricted Carcinogenic Substances

Not regulated.

Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16 - Any other relevant information

Issue date	10-November-2016
Revision date	14-February-2025
Key abbreviations or acronyms used	AICIS: Australian Inventory of Industrial Chemicals. ATE: Acute Toxicity Estimate according to REGULATION (EC) No 1272/2008 (CLP).
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Revision information	This document has undergone significant changes and should be reviewed in its entirety.