

## Cypermethrin Liquid Formulation

Version 2.3      Revision Date: 2023/11/21      SDS Number: 10849851-00006      Date of last issue: 2023/09/30  
Date of first issue: 2022/09/12

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### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Cypermethrin Liquid Formulation  
Other means of identification : VANQUISH LONG WOOL SPRAY-ON LICE TREATMENT AND BLOWFLY STRIKE PREVENTIVE FOR LONG WOOLLED SHEEP AND UNSHORN LAMBS (38354)

#### Manufacturer or supplier's details

Company : MSD  
Address : 126 E. Lincoln Avenue  
Rahway, New Jersey U.S.A. 07065  
Telephone : 908-740-4000  
Emergency telephone number : 1-908-423-6000  
E-mail address : EHSDATASTEWARD@msd.com

#### Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product  
Restrictions on use : Not applicable

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### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Skin sensitisation : Category 1  
Carcinogenicity : Category 1B  
Reproductive toxicity : Category 2  
Short-term (acute) aquatic hazard : Category 1  
Long-term (chronic) aquatic hazard : Category 1

#### GHS label elements

Hazard pictograms :   

Signal word : Danger

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- Hazard statements : H317 May cause an allergic skin reaction.  
H350 May cause cancer.  
H361f Suspected of damaging fertility.  
H410 Very toxic to aquatic life with long lasting effects.
- Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing mist or vapours.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Response:**  
P302 + P352 IF ON SKIN: Wash with plenty of water.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P391 Collect spillage.
- Storage:**  
P405 Store locked up.
- Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards which do not result in classification**

None known.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

Chemical name	CAS-No.	Concentration (% w/w)
Cypermethrin	52315-07-8	>= 3 -< 10
Oxirane, 2-methyl-, polymer with oxirane, mono(nonylphenyl) ether	37251-69-7	>= 0.25 -< 2.5
Formaldehyde	50-00-0	>= 0.2 -< 1

**4. FIRST AID MEASURES**

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.

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When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.  
Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.  
Remove contaminated clothing and shoes.  
Get medical attention.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.

In case of eye contact : Flush eyes with water as a precaution.  
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.  
Get medical attention.  
Rinse mouth thoroughly with water.  
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.  
May cause cancer.  
Suspected of damaging fertility.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Notes to physician : Treat symptomatically and supportively.

**5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : None known.

Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Use water spray to cool unopened containers.  
Remove undamaged containers from fire area if it is safe to do so.  
Evacuate area.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

**6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

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- Environmental precautions : Avoid release to the environment.  
Prevent further leakage or spillage if safe to do so.  
Prevent spreading over a wide area (e.g. by containment or oil barriers).  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material.  
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.  
Clean up remaining materials from spill with suitable absorbent.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.  
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

### 7. HANDLING AND STORAGE

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.
- Advice on safe handling : Do not get on skin or clothing.  
Do not breathe mist or vapours.  
Do not swallow.  
Avoid contact with eyes.  
Wash skin thoroughly after handling.  
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment  
Keep container tightly closed.  
Do not eat, drink or smoke when using this product.  
Take care to prevent spills, waste and minimize release to the environment.
- Conditions for safe storage : Keep in properly labelled containers.  
Store locked up.  
Keep tightly closed.  
Store in accordance with the particular national regulations.
- Materials to avoid : Do not store with the following product types:  
Strong oxidizing agents

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type	Control parame-	Basis
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		(Form of exposure)	ters / Permissible concentration	
Cypermethrin	52315-07-8	TWA	50 µg/m <sup>3</sup> (OEB 3)	Internal
Further information: DSEN, Skin				
		Wipe limit	100 µg/100 cm <sup>2</sup>	Internal
Formaldehyde	50-00-0	PSD	0.3 ppm	ID OEL
Further information: Dermal Sensitization, Respiratory Sensitization, Suspected human carcinogen				
		TWA	0.1 ppm	ACGIH
		STEL	0.3 ppm	ACGIH

**Engineering measures** : Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip-less quick connections).  
 All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.  
 Laboratory operations do not require special containment.

**Personal protective equipment**

**Respiratory protection** : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

**Filter type** : Combined particulates and inorganic gas/vapour type

**Hand protection** : Chemical-resistant gloves

**Material** : Chemical-resistant gloves

**Eye protection** : Wear safety glasses with side shields or goggles.  
 If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.  
 Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

**Skin and body protection** : Work uniform or laboratory coat.

**Hygiene measures** : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.  
 When using do not eat, drink or smoke.  
 Contaminated work clothing should not be allowed out of the workplace.  
 Wash contaminated clothing before re-use.  
 The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance** : suspension

**Colour** : pink

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red

Odour : No data available

Odour Threshold : No data available

pH : 3.0 - 6.0

Melting point/freezing point : No data available

Initial boiling point and boiling range : No data available

Flash point : No data available

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : 1.02

Density : No data available

Solubility(ies)  
Water solubility : soluble

Partition coefficient: n-octanol/water : Not applicable

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity  
Viscosity, kinematic : No data available

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

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Molecular weight                   : No data available  
Particle size                         : Not applicable

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**10. STABILITY AND REACTIVITY**

Reactivity                            : Not classified as a reactivity hazard.  
Chemical stability                 : Stable under normal conditions.  
Possibility of hazardous reac-   : Can react with strong oxidizing agents.  
tions  
Conditions to avoid                : None known.  
Incompatible materials            : Oxidizing agents  
Hazardous decomposition         : No hazardous decomposition products are known.  
products

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**11. TOXICOLOGICAL INFORMATION**

Information on likely routes of   : Inhalation  
exposure                            : Skin contact  
  : Ingestion  
  : Eye contact

**Acute toxicity**

Not classified based on available information.

**Product:**

Acute oral toxicity                 : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method  
  
Acute inhalation toxicity         : Acute toxicity estimate: > 20000 ppm  
Exposure time: 4 h  
Test atmosphere: gas  
Method: Calculation method  
  
Acute dermal toxicity               : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method

**Components:****Cypermethrin:**

Acute oral toxicity                 : LD50 (Rat, female): 367 mg/kg  
  : LD50 (Rat, male): 891 mg/kg  
  
Acute dermal toxicity               : LD50 (Rat): > 4,800 mg/kg  
  : LD50 (Rabbit): > 2,400 mg/kg

**Oxirane, 2-methyl-, polymer with oxirane, mono(nonylphenyl) ether:**

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Acute oral toxicity : LD50 (Rat): > 4,000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

**Formaldehyde:**

Acute oral toxicity : Acute toxicity estimate: 100 mg/kg  
Method: Expert judgement

Acute inhalation toxicity : Acute toxicity estimate: 100 ppm  
Exposure time: 4 h  
Test atmosphere: gas  
Method: Expert judgement

Acute dermal toxicity : LD50 (Rabbit): 270 mg/kg

**Skin corrosion/irritation**

Not classified based on available information.

**Components:****Cypermethrin:**

Species : Rabbit  
Method : Draize Test  
Result : No skin irritation

**Formaldehyde:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : Corrosive after 3 minutes to 1 hour of exposure

**Serious eye damage/eye irritation**

Not classified based on available information.

**Components:****Cypermethrin:**

Species : Rabbit  
Result : No eye irritation  
Method : Draize Test

**Formaldehyde:**

Species : Rabbit  
Result : Irreversible effects on the eye

**Respiratory or skin sensitisation****Skin sensitisation**

May cause an allergic skin reaction.



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### Respiratory sensitisation

Not classified based on available information.

#### Components:

##### **Cypermethrin:**

Test Type	: Magnusson-Kligman-Test
Species	: Guinea pig
Assessment	: Did not cause sensitisation on laboratory animals.
Result	: Not a skin sensitizer.

##### **Formaldehyde:**

Test Type	: Local lymph node assay (LLNA)
Exposure routes	: Skin contact
Species	: Mouse
Method	: OECD Test Guideline 429
Result	: positive

Assessment	: Probability or evidence of high skin sensitisation rate in humans
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### Germ cell mutagenicity

Not classified based on available information.

#### Components:

##### **Cypermethrin:**

Genotoxicity in vitro	:	Test Type: Chromosome aberration test in vitro
		Test system: Human lymphocytes
		Result: negative
	:	Test Type: Microbial mutagenesis assay (Ames test)
		Result: negative
		Test Type: sister chromatid exchange assay
	:	Test system: Human lymphocytes
		Result: negative
		Test Type: In vivo micronucleus test
Genotoxicity in vivo	:	Species: Rat
		Application Route: Oral
		Result: positive
	:	Test Type: In vivo micronucleus test
		Species: Rat
		Application Route: Dermal
	:	Result: positive
		Test Type: In vivo micronucleus test
		Species: Rat
:	Application Route: Intraperitoneal injection	
	Result: negative	

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Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

### Formaldehyde:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: positive

Test Type: Chromosome aberration test in vitro  
Result: positive

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Rat  
Application Route: Inhalation  
Result: positive

Germ cell mutagenicity - Assessment : Positive result(s) from in vivo mammalian somatic cell mutagenicity tests.

### Carcinogenicity

May cause cancer.

#### Components:

#### Formaldehyde:

Species : Rat  
Application Route : inhalation (gas)  
Exposure time : 28 Months  
Result : positive

Carcinogenicity - Assessment : Sufficient evidence of carcinogenicity in animal experiments

### Reproductive toxicity

Suspected of damaging fertility.

#### Components:

#### Cypermethrin:

Effects on fertility : Test Type: Fertility  
Species: Rat, male  
Application Route: Oral  
Fertility: LOAEL: 68 mg/kg body weight  
Symptoms: Effects on fertility, male reproductive effects, Testicular effects

Test Type: Fertility  
Species: Rat, male  
Application Route: Oral  
Fertility: NOAEL: 6.25 mg/kg body weight  
Target Organs: male reproductive organs, Testis

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Effects on foetal development : Test Type: Three-generation reproduction toxicity study  
 Species: Mouse  
 Application Route: Oral  
 General Toxicity Maternal: NOAEL: 5 mg/kg body weight  
 Symptoms: No effects on foetal development, No effect on reproduction capacity, Reduced body weight

Test Type: Reproduction/Developmental toxicity screening test  
 Species: Rabbit  
 Application Route: Oral  
 Teratogenicity: NOAEL: 30 mg/kg body weight  
 Symptoms: No effects on foetal development

Test Type: Reproduction/Developmental toxicity screening test  
 Species: Rat  
 Application Route: Oral  
 Teratogenicity: NOAEL: 17.5 mg/kg body weight  
 Symptoms: No effects on foetal development

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

**Formaldehyde:**

Effects on foetal development : Test Type: Embryo-foetal development  
 Species: Rat  
 Application Route: inhalation (gas)  
 Result: negative

**STOT - single exposure**

Not classified based on available information.

**Components:****Cypermethrin:**

Target Organs : Nervous system  
 Assessment : May cause damage to organs.

**Formaldehyde:**

Assessment : May cause respiratory irritation.

**STOT - repeated exposure**

Not classified based on available information.

**Components:****Formaldehyde:**

Exposure routes : inhalation (gas)

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Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### Repeated dose toxicity

#### Components:

##### **Cypermethrin:**

Species : Rat  
 NOAEL : 5 mg/kg  
 Application Route : Oral  
 Exposure time : 3 Months  
 Target Organs : Central nervous system

Species : Rabbit  
 NOAEL : 12.5 mg/kg  
 Application Route : Oral  
 Exposure time : 3 Months  
 Target Organs : Central nervous system

Species : Dog  
 NOAEL : 1 mg/kg  
 Application Route : Oral  
 Exposure time : 1 yr  
 Symptoms : anxiety, central nervous system effects

Species : Rabbit  
 NOAEL : 20 mg/kg  
 Application Route : Dermal  
 Exposure time : 3 Weeks  
 Target Organs : male reproductive organs  
 Symptoms : reduced body weight gain, reduced food consumption

##### **Formaldehyde:**

Species : Rat  
 NOAEL : 6 ppm  
 LOAEL : 10 ppm  
 Application Route : inhalation (gas)  
 Exposure time : 28 Days

### Aspiration toxicity

Not classified based on available information.

### Experience with human exposure

#### Components:

##### **Cypermethrin:**

General Information : Target Organs: Nervous system  
 Symptoms: muscle weakness, central nervous system effects  
 Remarks: Based on Human Evidence

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The most common side effects are:  
Remarks: paraesthesias

### Further information

#### Components:

#### **Cypermethrin:**

Remarks : Dermal absorption possible

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

#### **Cypermethrin:**

Toxicity to fish	:	EC50 (Oncorhynchus mykiss (rainbow trout)): 0.39 µg/l Exposure time: 96 h
		EC50 (Cyprinodon variegatus (sheepshead minnow)): 0.95 µg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.0036 µg/l Exposure time: 48 h
		EC50 (Americamysis): 0.00475 µg/l Exposure time: 48 h
M-Factor (Acute aquatic toxicity)	:	100,000
Toxicity to fish (Chronic toxicity)	:	NOEC (Pimephales promelas (fathead minnow)): 0.14 µg/l Exposure time: 30 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Mysidopsis bahia (opossum shrimp)): 0.000781 µg/l Exposure time: 28 d
M-Factor (Chronic aquatic toxicity)	:	100,000
<b>Oxirane, 2-methyl-, polymer with oxirane, mono(nonylphenyl) ether:</b>		
Toxicity to fish	:	LC50 : 82 mg/l Exposure time: 96 h
<b>Formaldehyde:</b>		
Toxicity to fish	:	LC50 : 6.7 mg/l Exposure time: 96 h Remarks: Based on data from similar materials
Toxicity to daphnia and other	:	EC50 (Daphnia pulex (Water flea)): 5.8 mg/l

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aquatic invertebrates		Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 4.89 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to fish (Chronic toxicity)	:	NOEC (Oryzias latipes (Orange-red killifish)): >= 48 mg/l Exposure time: 28 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): >= 6.4 mg/l Exposure time: 21 d Method: OECD Test Guideline 211
Toxicity to microorganisms	:	EC50: 34.1 mg/l Exposure time: 120 h

### Persistence and degradability

#### Components:

##### **Cypermethrin:**

Stability in water : Degradation half life (DT50): 17 d

##### **Oxirane, 2-methyl-, polymer with oxirane, mono(nonylphenyl) ether:**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: < 70 %  
Exposure time: 28 d

##### **Formaldehyde:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 91 %  
Exposure time: 14 d  
Method: OECD Test Guideline 301C  
Remarks: Based on data from similar materials

### Bioaccumulative potential

#### Components:

##### **Cypermethrin:**

Bioaccumulation : Bioconcentration factor (BCF): 488

Partition coefficient: n-octanol/water : log Pow: 6.6

##### **Formaldehyde:**

Partition coefficient: n-octanol/water : log Pow: 0.35  
Remarks: Calculation

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**Mobility in soil****Components:****Cypermethrin:**

Distribution among environmental compartments : log Koc: 5.58  
 Stability in soil :

**Other adverse effects**

No data available

**13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Do not dispose of waste into sewer.  
 Dispose of in accordance with local regulations.  
 Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
 If not otherwise specified: Dispose of as unused product.

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**14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

UN number : UN 3082  
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 (Cypermethrin)  
 Class : 9  
 Packing group : III  
 Labels : 9  
 Environmentally hazardous : yes

**IATA-DGR**

UN/ID No. : UN 3082  
 Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.  
 (Cypermethrin)  
 Class : 9  
 Packing group : III  
 Labels : Miscellaneous  
 Packing instruction (cargo aircraft) : 964  
 Packing instruction (passenger aircraft) : 964  
 Environmentally hazardous : yes

**IMDG-Code**

UN number : UN 3082  
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
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Class	: 9
Packing group	: III
Labels	: 9
EmS Code	: F-A, S-F
Marine pollutant	: yes

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

Not applicable for product as supplied.

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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**15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Minister of Industry Regulation No. 23/M-IND/PER/4/2013 concerning the Revision of Minister of Industry Regulation No. 87/M-IND/PER/9/2009 concerning Globally Harmonized System of Classification and Labelling of Chemicals.**

**Regulation of the Minister of Health No. 472 of 1996 on the Safeguarding of Substances Hazardous to Health**

Hazardous substances that must be registered : Formaldehyde

**Government Regulation No. 74 of 2001 on the Management of Hazardous and Toxic Substances**

Hazardous substances approved for use : Formaldehyde

Prohibited substances : Not applicable

Restricted substances : Not applicable

**Regulation of the Ministry of Trade No. 7 of 2022 on Distribution and Control of Hazardous Materials**

Type of hazardous materials subject to distribution and control, Annex I : Formaldehyde

Type of hazardous materials subject to distribution and control, Annex II : Not applicable

**The components of this product are reported in the following inventories:**

AICS : not determined

DSL : not determined



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IECSC : not determined

**16. OTHER INFORMATION**

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**Further information**Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Date format : yyyy/mm/dd

**Full text of other abbreviations**

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ID OEL : Indonesia. Occupational Exposure Limits

ACGIH / TWA : 8-hour, time-weighted average

ACGIH / STEL : Short-term exposure limit

ID OEL / PSD : Short term exposure limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

## Cypermethrin Liquid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
2.3	2023/11/21	10849851-00006	Date of first issue: 2022/09/12

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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