

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version  
9.0

Revision Date:  
2025/04/14

SDS Number:  
1559915-00018

Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25

---

### 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical product name : Deltamethrin Liquid Formulation

#### Supplier's company name, address and phone number

Company name of supplier : MSD

Address : 1-13-12, Kudan-kita, Chiyoda-ku, Tokyo, Japan

Telephone : 03-6272-1099

E-mail address : EHSDATASTEWARD@msd.com

Emergency telephone number : +1-908-423-6000

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

Recommended use : Veterinary product

Restrictions on use : Not applicable

---

### 2. HAZARDS IDENTIFICATION

#### GHS classification of chemical product

Acute toxicity (Oral) : Category 4

Serious eye damage/eye irritation : Category 1

Skin sensitisation : Category 1

Reproductive toxicity : Category 2

Specific target organ toxicity - repeated exposure (Oral) : Category 2 (Central nervous system, Immune system)

Specific target organ toxicity - repeated exposure (Inhalation) : Category 2 (Central nervous system)

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

#### GHS label elements

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version 9.0	Revision Date: 2025/04/14	SDS Number: 1559915-00018	Date of last issue: 2024/09/28 Date of first issue: 2017/04/25
----------------	------------------------------	------------------------------	---

Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	<p>H302 Harmful if swallowed. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H361fd Suspected of damaging fertility. Suspected of damaging the unborn child. H373 May cause damage to organs (Central nervous system, Immune system) through prolonged or repeated exposure if swallowed. H373 May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled. H410 Very toxic to aquatic life with long lasting effects.</p>
Precautionary statements	:	<p><b>Prevention:</b> P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe mist or vapours. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. 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.</p> <p><b>Response:</b> P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth. P302 + P352 IF ON SKIN: Wash with plenty of water. P305 + P351 + P338 + P310 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 CENTER/ doctor. 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.</p> <p><b>Storage:</b> P405 Store locked up.</p> <p><b>Disposal:</b> P501 Dispose of contents/ container to an approved waste</p>

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version 9.0	Revision Date: 2025/04/14	SDS Number: 1559915-00018	Date of last issue: 2024/09/28 Date of first issue: 2017/04/25
----------------	------------------------------	------------------------------	---

disposal plant.

### Other hazards which do not result in classification

Important symptoms and outlines of the emergency assumed : 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).

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (% w/w)	ENCS No.
Alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl)	9002-93-1	68	7-172
deltamethrin (ISO)	52918-63-5	>= 3 - < 10	

## 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
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 : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.  
If easy to do, remove contact lens, if worn.  
Get medical attention immediately.

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 : This product contains a pyrethroid.  
Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.  
Harmful if swallowed.  
May cause an allergic skin reaction.  
Causes serious eye damage.  
Suspected of damaging fertility. Suspected of damaging the unborn child.  
May cause damage to organs through prolonged or repeated exposure if swallowed.

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

---

Version 9.0	Revision Date: 2025/04/14	SDS Number: 1559915-00018	Date of last issue: 2024/09/28 Date of first issue: 2017/04/25
----------------	------------------------------	------------------------------	---

---

Protection of first-aiders	May cause damage to organs through prolonged or repeated exposure if inhaled. 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> ) Bromine compounds
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).
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

**Deltamethrin Liquid Formulation**

Version 9.0	Revision Date: 2025/04/14	SDS Number: 1559915-00018	Date of last issue: 2024/09/28 Date of first issue: 2017/04/25
----------------	------------------------------	------------------------------	---

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****Handling**

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.  
Do not get in 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.

Avoidance of contact : Oxidizing agents

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.

**Storage**

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

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version 9.0	Revision Date: 2025/04/14	SDS Number: 1559915-00018	Date of last issue: 2024/09/28 Date of first issue: 2017/04/25
----------------	------------------------------	------------------------------	---

Packaging material : Unsuitable material: None known.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Threshold limit value and permissible exposure limits for each component in the work environment**

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Concentra- tion standard / Permissible con- centration	Basis
deltamethrin (ISO)	52918-63-5	TWA	15 µg/m <sup>3</sup> (OEB 3)	Internal
		Further information: DSEN, Skin		
		Wipe limit	100 µg/100 cm <sup>2</sup>	Internal

**Engineering measures** : Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., dripless 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. Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices). Minimize open handling.

#### 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 : Particulates type

Hand protection

Material : Chemical-resistant gloves

Remarks : Consider double gloving.

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. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces. Use appropriate degowning techniques to remove potentially contaminated clothing.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version 9.0      Revision Date: 2025/04/14      SDS Number: 1559915-00018      Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25

---

Physical state : liquid

Colour : colourless

Odour : odourless

Odour Threshold : No data available

Melting point/freezing point : No data available

Boiling point, initial boiling point and boiling range : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Lower explosion limit and upper explosion limit / flammability limit  
Upper explosion limit / Up- : No data available  
per flammability limit

Lower explosion limit / Lower flammability limit : No data available

Flash point : No data available

Decomposition temperature : No data available

pH : 3.4 - 4 (20 °C)

Evaporation rate : No data available

Auto-ignition temperature : No data available

Viscosity  
Viscosity, kinematic : No data available

Solubility(ies)  
Water solubility : No data available

Partition coefficient: n-octanol/water : No data available

Vapour pressure : No data available

Density and / or relative density  
Relative density : No data available

Density : No data available

Relative vapour density : No data available

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version 9.0      Revision Date: 2025/04/14      SDS Number: 1559915-00018      Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25

---

Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: Not applicable
Particle characteristics	
Particle size	: Not applicable

---

## 10. STABILITY AND REACTIVITY

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

---

## 11. TOXICOLOGICAL INFORMATION

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

### Acute toxicity

Harmful if swallowed.

#### Product:

Acute oral toxicity	: Acute toxicity estimate: 956.51 mg/kg Method: Calculation method
Acute inhalation toxicity	: Acute toxicity estimate: > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method

#### Components:

##### **Alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):**

Acute oral toxicity	: LD50 (Rat): 1,900 - 5,000 mg/kg Remarks: Based on data from similar materials
Acute dermal toxicity	: LD50 (Rabbit): > 2,000 mg/kg Remarks: Based on data from similar materials

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version  
9.0

Revision Date:  
2025/04/14

SDS Number:  
1559915-00018

Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25

### **deltamethrin (ISO):**

Acute oral toxicity	:	LD50 (Rat): 66.7 mg/kg
		LD50 (Rat): 9 - 139 mg/kg
		LD50 (Mouse): 19 - 34 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 0.8 mg/l Exposure time: 2 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 (Rabbit): 2,000 mg/kg LD50 (Rat): > 800 mg/kg
Acute toxicity (other routes of administration)	:	LD50 (Rat): 2.5 mg/kg Application Route: Intravenous LD50 (Mouse): 10 mg/kg Application Route: Intraperitoneal

### **Skin corrosion/irritation**

Not classified based on available information.

### **Components:**

#### **Alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):**

Species	:	Rabbit
Result	:	No skin irritation
Remarks	:	Based on data from similar materials

### **deltamethrin (ISO):**

Species	:	Rabbit
Result	:	No skin irritation

### **Serious eye damage/eye irritation**

Causes serious eye damage.

### **Components:**

#### **Alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):**

Result	:	Irreversible effects on the eye
Remarks	:	Based on data from similar materials

### **deltamethrin (ISO):**

Species	:	Rabbit
Result	:	Moderate eye irritation

**Deltamethrin Liquid Formulation**Version  
9.0Revision Date:  
2025/04/14SDS Number:  
1559915-00018Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25**Respiratory or skin sensitisation****Skin sensitisation**

May cause an allergic skin reaction.

**Respiratory sensitisation**

Not classified based on available information.

**Components:****Alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):**

Exposure routes	:	Skin contact
Species	:	Guinea pig
Result	:	negative
Remarks	:	Based on data from similar materials

**deltamethrin (ISO):**

Test Type	:	Maximisation Test
Exposure routes	:	Dermal
Species	:	Guinea pig
Result	:	negative
Test Type	:	Human repeat insult patch test (HRIPT)
Exposure routes	:	Dermal
Species	:	Humans
Result	:	positive

**Germ cell mutagenicity**

Not classified based on available information.

**Components:****Alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):**

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative Remarks: Based on data from similar materials
-----------------------	---	---

**deltamethrin (ISO):**

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative
		Test Type: DNA Repair Test system: Escherichia coli Result: negative
		Test Type: Chromosomal aberration Test system: Chinese hamster ovary cells Result: negative
		Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster lung cells

**Deltamethrin Liquid Formulation**Version  
9.0Revision Date:  
2025/04/14SDS Number:  
1559915-00018Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25

Concentration: LOAEL: 20 mg/kg  
Result: positive

**Genotoxicity in vivo**

: Test Type: Micronucleus test  
Species: Mouse  
Application Route: Oral  
Result: negative

Test Type: dominant lethal test  
Species: Mouse  
Application Route: Oral  
Result: negative

Test Type: sister chromatid exchange assay  
Species: Mouse  
Cell type: Bone marrow  
Application Route: Oral  
Result: negative

**Carcinogenicity**

Not classified based on available information.

**Components:****deltamethrin (ISO):**

Species	:	Mouse, male and female
Application Route	:	oral (feed)
Exposure time	:	104 weeks
NOAEL	:	8 mg/kg body weight
LOAEL	:	4 mg/kg body weight
Result	:	positive
Target Organs	:	Lymph nodes

Species	:	Rat, male and female
Application Route	:	oral (feed)
Exposure time	:	2 Years
Result	:	negative

Species	:	Dog, male and female
Application Route	:	oral (feed)
Exposure time	:	2 Years
NOAEL	:	1 mg/kg body weight
Result	:	negative

**Reproductive toxicity**

Suspected of damaging fertility. Suspected of damaging the unborn child.

**Components:****deltamethrin (ISO):**

Effects on fertility	:	Test Type: Three-generation reproduction toxicity study Species: Rat
----------------------	---	---

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version 9.0	Revision Date: 2025/04/14	SDS Number: 1559915-00018	Date of last issue: 2024/09/28 Date of first issue: 2017/04/25
----------------	------------------------------	------------------------------	---

Application Route: oral (feed)  
Early Embryonic Development: NOAEL: 50 mg/kg body weight  
Symptoms: No effects on fertility, Embryo-foetal toxicity  
Remarks: Significant toxicity observed in testing

Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: Oral  
Early Embryonic Development: LOAEL: 84 - 149 mg/kg body weight  
Symptoms: No effects on fertility, Embryo-foetal toxicity

Test Type: Fertility  
Species: Rat, male  
Application Route: Oral  
Fertility: LOAEL: 1 mg/kg body weight  
Symptoms: Effects on fertility  
Target Organs: Testes

Effects on foetal development : Test Type: Development  
Species: Mouse  
Application Route: oral (gavage)  
Developmental Toxicity: LOAEL: 1 mg/kg body weight  
Result: Skeletal malformations  
Remarks: Maternal toxicity observed.

Test Type: Development  
Species: Rat, female  
Developmental Toxicity: NOAEL: 10 mg/kg body weight  
Symptoms: No effects on foetal development

Test Type: Development  
Species: Rabbit, female  
Application Route: oral (gavage)  
Developmental Toxicity: NOAEL: 16 mg/kg body weight  
Symptoms: No effects on foetal development

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

### STOT - single exposure

Not classified based on available information.

### Components:

#### **deltamethrin (ISO):**

Assessment : May cause respiratory irritation.

**Deltamethrin Liquid Formulation**

Version 9.0	Revision Date: 2025/04/14	SDS Number: 1559915-00018	Date of last issue: 2024/09/28 Date of first issue: 2017/04/25
----------------	------------------------------	------------------------------	---

**STOT - repeated exposure**

May cause damage to organs (Central nervous system, Immune system) through prolonged or repeated exposure if swallowed.

May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.

**Components:****deltamethrin (ISO):**

Exposure routes	:	Ingestion
Target Organs	:	Central nervous system, Immune system
Assessment	:	Causes damage to organs through prolonged or repeated exposure.

Exposure routes	:	inhalation (dust/mist/fume)
Target Organs	:	Central nervous system
Assessment	:	Causes damage to organs through prolonged or repeated exposure.

**Repeated dose toxicity****Components:****deltamethrin (ISO):**

Species	:	Rat, male and female
NOAEL	:	1 mg/kg
LOAEL	:	2.5 mg/kg
Application Route	:	Oral
Exposure time	:	13 Weeks
Target Organs	:	Nervous system
Symptoms	:	hyperexcitability

Species	:	Rat
LOAEL	:	3 mg/m3
Application Route	:	inhalation (dust/mist/fume)
Exposure time	:	2 wk / 5 d/wk / 6 h/d
Symptoms	:	Local irritation, respiratory tract irritation

Species	:	Dog
NOAEL	:	0.1 mg/kg
LOAEL	:	1 mg/kg
Application Route	:	Oral
Exposure time	:	13 Weeks
Target Organs	:	Nervous system
Symptoms	:	Dilatation of the pupil, Vomiting, Tremors, Diarrhoea, Salivation

Species	:	Rat
NOAEL	:	14 mg/kg
LOAEL	:	54 mg/kg
Application Route	:	Oral
Exposure time	:	91 d

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version  
9.0

Revision Date:  
2025/04/14

SDS Number:  
1559915-00018

Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25

---

Target Organs	: Nervous system
Species	: Mouse
LOAEL	: 6 mg/kg
Application Route	: Oral
Exposure time	: 12 Weeks
Target Organs	: Immune system
Symptoms	: immune system effects

### Aspiration toxicity

Not classified based on available information.

### Experience with human exposure

#### Components:

##### **deltamethrin (ISO):**

Inhalation	: Symptoms: respiratory tract irritation, Dizziness, Sweating, Headache, Nausea, Vomiting, anorexia, Fatigue, tingling, Palpitation, Blurred vision, muscle twitching
Skin contact	: Symptoms: Skin irritation, Erythema, pruritis, Headache, Nausea, Vomiting, Dizziness, tingling, Sweating, muscle twitching, Blurred vision, Fatigue, anorexia, Allergic reactions
Ingestion	: Symptoms: muscle pain, Small pupils

---

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **Alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):**

Toxicity to fish	: LC50 (Pimephales promelas (fathead minnow)): > 1 - 10 mg/l Exposure time: 96 h Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 10 - 100 mg/l Exposure time: 48 h Remarks: Based on data from similar materials

##### **deltamethrin (ISO):**

Toxicity to fish	: LC50 (Cyprinodon variegatus (sheepshead minnow)): 0.00048 mg/l Exposure time: 96 h
	: LC50 (Oncorhynchus mykiss (rainbow trout)): 0.00039 mg/l Exposure time: 96 h

**Deltamethrin Liquid Formulation**

Version 9.0      Revision Date: 2025/04/14      SDS Number: 1559915-00018      Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25

---

Toxicity to daphnia and other aquatic invertebrates	: EC50 (Mysidopsis bahia (opossum shrimp)): 0.0037 µg/l Exposure time: 48 h
	EC50 (Daphnia magna (Water flea)): 0.0035 mg/l Exposure time: 48 h
	LC50 (Gammarus fasciatus (freshwater shrimp)): 0.0003 µg/l Exposure time: 96 h
Toxicity to algae/aquatic plants	: EC50 (Pseudokirchneriella subcapitata (green algae)): > 9.1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: No toxicity at the limit of solubility
M-Factor (Acute aquatic toxicity)	: 1,000,000
Toxicity to fish (Chronic toxicity)	: NOEC (Pimephales promelas (fathead minnow)): 0.000022 mg/l Exposure time: 36 d
	NOEC (Pimephales promelas (fathead minnow)): 0.000017 mg/l Exposure time: 260 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 0.0041 µg/l Exposure time: 21 d
M-Factor (Chronic aquatic toxicity)	: 1,000,000

**Persistence and degradability****Components:****deltamethrin (ISO):**

Stability in water	: Hydrolysis: 0 %(30 d)
--------------------	-------------------------

**Bioaccumulative potential****Components:****Alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl):**

Partition coefficient: n-octanol/water	: log Pow: < 4 Remarks: Expert judgement
--	---

**deltamethrin (ISO):**

Bioaccumulation	: Species: Lepomis macrochirus (Bluegill sunfish) Bioconcentration factor (BCF): 1,800
-----------------	---

Partition coefficient: n-octanol/water	: log Pow: 4.6
--	----------------

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version 9.0      Revision Date: 2025/04/14      SDS Number: 1559915-00018      Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25

---

### Mobility in soil

#### Components:

##### **deltamethrin (ISO):**

Distribution among environmental compartments : log Koc: 7.2

#### **Hazardous to the ozone layer**

Not applicable

#### **Other adverse effects**

No data available

---

## 13. DISPOSAL CONSIDERATIONS

#### **Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.  
Do not dispose of waste into sewer.

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.

---

## 14. TRANSPORT INFORMATION

#### **International Regulations**

##### **UNRTDG**

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(deltamethrin (ISO), Alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl))

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.  
(deltamethrin (ISO), Alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl))

Class : 9

Packing group : III

Labels : Miscellaneous

Packing instruction (cargo aircraft) : 964

Packing instruction (passenger aircraft) : 964

Environmentally hazardous : yes

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version 9.0      Revision Date: 2025/04/14      SDS Number: 1559915-00018      Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25

---

### IMDG-Code

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(deltamethrin (ISO), Alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl))  
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.

### National Regulations

Refer to section 15 for specific national regulation.

### 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.

ERG Code : 171

---

## 15. REGULATORY INFORMATION

### Related Regulations

#### Fire Service Law

Not applicable to dangerous materials / designated flammables.

#### Chemical Substance Control Law

Not applicable for Specified Chemical Substance, Monitoring Chemical Substance and Priority Assessment Chemical Substance.

#### Industrial Safety and Health Law

##### Harmful Substances Prohibited from Manufacture

Not applicable

##### Harmful Substances Required Permission for Manufacture

Not applicable

##### Substances Prevented From Impairment of Health

Not applicable

##### Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity

Not applicable

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version  
9.0

Revision Date:  
2025/04/14

SDS Number:  
1559915-00018

Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25

### **Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity**

Not applicable

#### **Substances Subject to be Notified Names**

Law Article 57-2 (Ministerial Order Article 34-2 Appended Table 2)

Chemical name	Concentration (%)	Remarks
alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl)	>=60 - <70	From April 1st, 2026

#### **Substances Subject to be Indicated Names**

Law Article 57 (Ministerial Order Article 30 Appended Table 2)

Chemical name	Remarks
alpha-(4-(1,1,3,3-Tetramethylbutyl)phenyl)-omega-hydroxypoly(oxy-1,2-ethanediyl)	From April 1st, 2026

#### **Skin and Eye Damage Substances (ISHL MO Art. 594-2)**

Not applicable

#### **Carcinogenic Substances (Article 577-2 of the Occupational Health and Safety Regulations)**

Not applicable

#### **Ordinance on Prevention of Hazards Due to Specified Chemical Substances**

Not applicable

#### **Ordinance on Prevention of Lead Poisoning**

Not applicable

#### **Ordinance on Prevention of Tetraalkyl Lead Poisoning**

Not applicable

#### **Ordinance on Prevention of Organic Solvent Poisoning**

Not applicable

#### **Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances)**

Not applicable

#### **Poisonous and Deleterious Substances Control Law**

Not applicable

#### **Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof**

#### **Class I Designated Chemical Substances**

Chemical name	Administration number	Concentration (%)
Poly(oxyethylene) alkylphenyl ether (limited to those the alkyl group is C=8)	408	68

#### **High Pressure Gas Safety Act**

Not applicable

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version  
9.0

Revision Date:  
2025/04/14

SDS Number:  
1559915-00018

Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25

---

### Explosive Control Law

Not applicable

### Vessel Safety Law

Miscellaneous dangerous substances and articles (Article 2 and 3 of rules on shipping and storage of dangerous goods and its Attached Table 1)

### Aviation Law

Miscellaneous dangerous substances and articles (Article 194 of The Enforcement Rules of Aviation Law and its Attached Table 1)

### Marine Pollution and Sea Disaster Prevention etc Law

Bulk transportation : Noxious liquid substance(Category Y)

Pack transportation : Classified as marine pollutant

### Narcotics and Psychotropics Control Act

Narcotic or Psychotropic Raw Material (Export / Import Permission)

Not applicable

Specific Narcotic or Psychotropic Raw Material (Export / Import permission)

Not applicable

### Waste Disposal and Public Cleansing Law

Industrial waste

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

AICS : not determined

DSL : not determined

IECSC : not determined

---

## 16. OTHER INFORMATION

In this SDS, if the concentration of substances subject to notification under the Industrial Safety and Health Law is indicated as a range, it includes cases where it is a trade secret.

### 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/>

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format : yyyy/mm/dd

### Full text of other abbreviations

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 -

# SAFETY DATA SHEET



## Deltamethrin Liquid Formulation

Version  
9.0

Revision Date:  
2025/04/14

SDS Number:  
1559915-00018

Date of last issue: 2024/09/28  
Date of first issue: 2017/04/25

---

Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); EC<sub>x</sub> - Concentration associated with x% response; EL<sub>x</sub> - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErC<sub>x</sub> - 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; IC<sub>50</sub> - 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; LC<sub>50</sub> - Lethal Concentration to 50 % of a test population; LD<sub>50</sub> - 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

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.

JP / EN