

Deltamethrin (1.05%) Formulation

Version 4.0 Revision Date: 2023/11/03 SDS Number: 10215166-00007 Date of last issue: 2023/09/30
Date of first issue: 2021/11/10

1. PRODUCT AND COMPANY IDENTIFICATION

Chemical product name : Deltamethrin (1.05%) Formulation

Supplier's company name, address and phone number

Company name of supplier : MSD

Address : Kumagaya, Saitama Prefecture , Xicheng 810 MSD Co., Ltd.
Menuma factory

Telephone : 048-588-8411

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**

Skin sensitisation : Category 1

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

Hazard pictograms :



Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

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.

Precautionary statements :

Prevention:

P260 Do not breathe 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.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.

P314 Get medical advice/ attention if you feel unwell.

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.

Disposal:

P501 Dispose of contents/ container to an approved waste 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).

Dust contact with the eyes can lead to mechanical irritation.

Contact with dust can cause mechanical irritation or drying of the skin.

May form explosive dust-air mixture during processing, handling or other means.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)	ENCS No.
deltamethrin (ISO)	52918-63-5	>= 1 - < 2.5	

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

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

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 : If in eyes, rinse well with water.
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention.
Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.
May cause damage to organs through prolonged or repeated exposure if swallowed.
May cause damage to organs through prolonged or repeated exposure if inhaled.
Contact with dust can cause mechanical irritation or drying of the skin.
Dust contact with the eyes can lead to mechanical irritation.
This product contains a pyrethroid.
Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.

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 (CO₂)
Dry chemical

Unsuitable extinguishing media : None known.

Specific hazards during fire-fighting : Vapours may form explosive mixtures with air.
Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides
Nitrogen oxides (NO_x)
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 : In the event of fire, wear self-contained breathing apparatus.

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

for firefighters

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. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. 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

Handling

- Technical measures : Static electricity may accumulate and ignite suspended dust causing an explosion. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
- 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

Deltamethrin (1.05%) Formulation

Version 4.0 Revision Date: 2023/11/03 SDS Number: 10215166-00007 Date of last issue: 2023/09/30
 Date of first issue: 2021/11/10

Avoidance of contact : Minimize dust generation and accumulation.
 Hygiene measures : Keep container closed when not in use.
 : Keep away from heat and sources of ignition.
 : Take precautionary measures against static discharges.
 : Do not eat, drink or smoke when using this product.
 : Take care to prevent spills, waste and minimize release to the environment.

: Oxidizing agents

: 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 in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:
 Oxidizing solids
 Oxidizing liquids

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 parameters / Reference concentration / Permissible concentration	Basis
deltamethrin (ISO)	52918-63-5	TWA	15 µg/m3 (OEB 3)	Internal
	Further information: DSEN, Skin			
		Wipe limit	100 µg/100 cm ²	Internal

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.
 Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

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	:	Combined particulates and organic vapour 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

Physical state	:	liquid
Colour	:	Colorless to pale yellow
Odour	:	No data available
Odour Threshold	:	No data available
Melting point/freezing point	:	No data available
Boiling point, initial boiling point and boiling range	:	> 150 °C
Flammability (solid, gas)	:	May form explosive dust-air mixture during processing, handling or other means.
Flammability (liquids)	:	Ignitable (see flash point)
Lower explosion limit and upper explosion limit / flammability limit	:	
Upper explosion limit / Upper explosion limit / Lower explosion limit per flammability limit	:	No data available
Lower explosion limit /	:	No data available

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

Lower flammability limit

Flash point : > 93 °C

Decomposition temperature : No data available

pH : No data available

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 : Not applicable

Vapour pressure : No data available

Density and / or relative density

 Relative density : 0.945 - 0.955 (20 °C)

 Density : No data available

Relative vapour density : No data available

Explosive properties : Not explosive

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

Molecular weight : No data available

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 : Vapours may form explosive mixture with air.
May form explosive dust-air mixture during processing, handling or other means.
Can react with strong oxidizing agents.

Conditions to avoid : Heat, flames and sparks.

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

Incompatible materials	:	Avoid dust formation.
Hazardous decomposition products	:	Oxidizing agents
	:	No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure :

- Inhalation
- 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: > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Components:

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

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Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

Components:

deltamethrin (ISO):

Species	: Rabbit
Result	: No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:

deltamethrin (ISO):

Species	: Rabbit
Result	: Moderate eye irritation

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Components:

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:

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

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

Genotoxicity in vivo	:	<p>Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster lung cells Concentration: LOAEL: 20 mg/kg Result: positive</p> <p>Test Type: Micronucleus test Species: Mouse Application Route: Oral Result: negative</p> <p>Test Type: dominant lethal test Species: Mouse Application Route: Oral Result: negative</p> <p>Test Type: sister chromatid exchange assay Species: Mouse Cell type: Bone marrow Application Route: Oral Result: negative</p>
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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

Not classified based on available information.

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

Components:**deltamethrin (ISO):**

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

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

Components:

deltamethrin (ISO):

Assessment : May cause respiratory irritation.

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

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

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

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

	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)
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Bioaccumulative potential**Components:****deltamethrin (ISO):**

Bioaccumulation	: Species: Lepomis macrochirus (Bluegill sunfish) Bioconcentration factor (BCF): 1,800
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Partition coefficient: n-octanol/water	: log Pow: 4.6
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Mobility in soil**Components:****deltamethrin (ISO):**

Distribution among environmental compartments	: log Koc: 7.2
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Hazardous to the ozone layer

Not applicable

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

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))

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))

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.
(deltamethrin (ISO))

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.

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

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**

Group 4, Type 3 petroleum, Water insoluble liquid, (2000 litre), Hazardous rank III

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

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

Not applicable

Substances Subject to be Notified Names

Not applicable

Substances Subject to be Indicated Names

Not applicable

Substances Subject to be Indicated Names

Not applicable

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

|| Not applicable

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

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

Not applicable

High Pressure Gas Safety Act

Not applicable

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 : Not classified as noxious liquid substance

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

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

IECSC : not determined

16. OTHER INFORMATION**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 - 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

Deltamethrin (1.05%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2023/09/30
4.0	2023/11/03	10215166-00007	Date of first issue: 2021/11/10

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