



MATERIAL SAFETY DATA SHEET

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N° AGR 1812

1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND THE COMPANY

Trade name : DELTACIDE
Product code : AE000982203UL17A1
Supplier : BAYER CropScience SA
55,avenue René Cassin - - - 69009 LYON - FRANCE
Phone number : 04.72.85.25.25
Emergency numbers 24H/24H **Tel:** 04.72.85.25.25 **Fax:** 04.72.85.27.99

2. COMPOSITION/INFORMATION ON INGREDIENTS

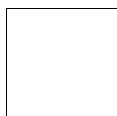
Composition/Information on ingredients
Synonyms : 4419.
Chemical family : Pyrethroids.
Kind of use : Insecticide, ultra low volume.

Hazardous constituents

CAS	EINECS	Wording	Concentration	Symbol	Risks Phrases
000051-03-6	200-076-7	Piperonyl butoxide	150g/l	N	51/53
064742-94-5	265-198-5	Heavy aromatic solvent	>500g/l	Xn, N	51/53-65
84030-86-4	249-013-5	Esbiothrin	5g/l	Xn, N	20/22-50/53
052918-63-5	258-256-6	Deltamethrin	15g/l	T, N	20-25-50/53

3. HAZARDS IDENTIFICATION

Symbols and labelling



EC: Not classified

Specific risks : Dangerous to aquatic organisms.



Main acute symptoms : The following symptoms may occur :
Local : skin and eyes paraesthesiae which may be severe. Usually transient with resolution within 24 hours.
Systemic : dizziness, headache, listlessness, nausea and vomiting, epigastric pain, muscular fasciculation of limbs, unconsciousness, convulsions and coma (very high doses)

4. FIRST-AID MEASURES IN CASE OF EXPOSURE

Instructions for physician : Symptomatic treatment after decontamination.
Local contamination:
Skin : apply vitamin E cream or simple toilet milks.
Eye : instillation of local anaesthetic drops e.g. 1% amethocaine hydrochloride eye drops.
Give analgesics as necessary.
Can cause severe pain.
Systemic poisoning :
Following ingestion of very large amounts or exposure to very high concentrations, the following measures should be considered :
Monitor function : respiratory, cardiac.
Observe specific parameters : électrocardiograph, check for pulmonary oedema in event inhalation.
Gastric lavage. Charcoal administration.
Endotracheal intubation. Artificial respiration as necessary.
Elimination by : dialysis, haemo-perfusion.
Anticonvulsions therapy : diazepam i.v..
Contraindications : 1. Adrenergic compounds. 2. Atropine.
Recovery : spontaneous.
Must not be confused with organophosphorus compounds.

Inhalation : Remove to fresh air.
Keep patient at rest.
Obtain medical advice immediately.

Skin contact : Carefully remove contaminated clothing.
Wash affected area with soap and water.
Seek medical advice immediately.

Eyes Contact : Rinse immediately with clean water for at least 15 minutes and obtain medical aid.

Ingestion : Wash out mouth with water.
Do not induce vomiting.
Give water to drink.
Keep patient at rest.
Seek medical advice immediately.



5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Water spray, CO2, foam, dry chemical.
- Unsuitable extinguishing media** : Water jet from a fire hose.
- Fire and explosion hazards** : In case of fire, the product emits toxic and irritating fumes.
- Special protective equipment** : Wear protective clothing.
Wear a self-contained breathing apparatus.
- Other recommendations** : Move containers from area.
Cool with water the containers against excessive heat.
Avoid rejection of extinguishing water in the environment.
Do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

- Personal protection** : Before intervention wear protective equipment (cf § 8-2).
Avoid contact with chemical or contaminated surfaces.
- Environment precautions** : Prevent entry into drains, sewers and watercourses.
Absorb with liquid binding material (sand, cement, lime).
Sweep into a suitable container and store the material collected.
Keep safe for disposal according to regulations.
- Clean-up procedures** : Rinse the contaminated area with a large quantity of water and cleaning agent.
*Store the washing waters into a suitable container.

7. HANDLING AND STORAGE

HANDLING

- Technical measures** : Use local exhaust ventilation at the source of formation of vapour.
Provide an ocular shower and sanitary installations near the place of work.
- Special protection measures** : Do not spray facing the wind.
- Specific precautions** : Wash hands and exposed part of the body with soap after work.

STORAGE

- Sensitivity to light** : Keep protected from direct sunlight.
- Storage temperature** : Ambient temperature.
- Low temperature to be avoided** : Protect from frost (crystal formation reversible).
- Special storage requirement** : Keep away from food, drink and animal feedingstuffs.
- Storage facilities** : Keep container tightly closed in cool and well-ventilated place.
- Recommended packaging material** : Aluminium, coex PE/PA, PET.
- Other recommendations** : Keep only in the original container.
Do not re-use empty containers.



Respect the height of advice piling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL OF EXPOSURE

TWA : 100 ppm (solvent)

PERSONAL PROTECTION

Respiratory protection : Wear a vapour mask (A).

Hands protection : Wear solvent-proof gloves.

Eyes protection : Wear chemical goggles.

Skin and body protection : Wear suitable protective clothing.

Specific hygiene measures : Use only in well-ventilated area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Clear yellow liquide.

Characteristic temperatures : Freezing point : < -10 °C.

Flash point : 59 °C (closed cup).

Inflammability limits : Lower 0.6 % v/v .
Upper 7 % v/v .

Inflammability : Flammable.

Density : 0.91 to 0.94 at 20 °C.

Partition coefficient : Deltamethrin : Log Pow = 5.43

Octanol/Water Esbiothrin : Log Pow = 4.70

10. STABILITY AND REACTIVITY

Products of decomposition : No decomposition under normal conditions.

Avoided conditions : Keep away from heat and source of ignition.

11. TOXICOLOGICAL INFORMATION

Acute toxicity : Toxicological assessment available for the active ingredients.

Deltamethrin :

LD 50 oral route/rat (male+female) : 128,5 mg/kg.

LD 50 cutaneous/rat : > 2000 mg/kg.

LC 50 inhalation/rat (4h) : 2.2 mg/l.

Esbiothrin :

LD 50 oral route/rat female : 378 mg/kg.

LD 50 cutaneous/rat : > 2000 mg/kg.

LC 50 inhalation/rat (4h) : 2.63 mg/l.



<i>Irritant potential</i>	: Toxicological assessment available for the active ingredients. Deltamethrin : Ocular irritation (rabbit) : slightly irritating. Cutaneous irritation (rabbit) : non irritating. It has been observed frequently to humans irritating skin effects. Esbiothrin : Ocular irritation (rabbit) : non irritating. Cutaneous irritation (rabbit) : non irritating.
<i>Sensitization</i>	: Deltamethrin : not sensitizing (guinea pig) (Buehler) Due to the presence of solvents in the formulation dermatosis may occur by repeated and prolonged contact with skin.
<i>Chronic toxicity</i>	: Toxicological assessment available for the active ingredients. Not mutagenic. Not teratogenic. Not carcinogenic.
<i>Comments/symptoms</i>	: Some cutaneous sensations occur, such as burning, stinging sensations on the face and mucosa, without lesions and transient some hours, maximum 24 h. Due to the presence of solvents in the preparation, may cause lung damage if swallowed.

12. ECOLOGICAL INFORMATION

<i>Environment protection</i>	: Do not throw out into drains, sewers, watercourses or environment.
<i>Persistence and degradability</i>	: Deltamethrin : DT 50 in most soil from 4 to 9 days. Esbiothrin : degradable to light.
<i>Mobility</i>	: Deltamethrin : fixed in most soil.
<i>Ecotoxicity</i>	: Ecotoxicological assessment available for the actives ingredients. Deltamethrin : LC 50 (96h) fish : 0.001 - 0.01 mg/l. EC 50 (48h) daphnia : 0.0035 mg/l. IC 50 (72h) algae : >1000 mg/l. Esbiothrin : LC 50 trout (96h) : 0.01 mg/l. *EC 50 daphnia (48h) : 0.009 mg/l

13. DISPOSAL CONSIDERATIONS

<i>Waste and residue</i>	: Incineration in accordance with the local waste regulation authority. Do not discharge washing waters in public sewers and water sources (ponds, streams...)
<i>Destruction soiled packaging</i>	: Empty and triple rinse. Make the container unusable. Disposal must be treated according to official local regulation.



14. TRANSPORT INFORMATION

<i>N° UN</i>	: 1993
<i>BY ROAD</i>	
<i>Transport assimilation</i>	: Flammable liquid, n.o.s.
<i>Class</i>	: 3
<i>Item number</i>	: 31°C)
<i>Label</i>	: 3
<i>Hazard Code</i>	: 30
<i>O.A.C.I. (By Air)</i>	
<i>Transport assimilation</i>	: Flammable liquid, n.o.s. (Petroleum distillates)
<i>Class</i>	: 3
<i>Group</i>	: III
<i>Label</i>	: 3
<i>Passengers</i>	: 309 (60 L)
<i>Cargo</i>	: 310 (220 L)
<i>I.M.D.G. (By Sea)</i>	
<i>Transport assimilation</i>	: Flammable liquid, n.o.s. (Petroleum distillates)
<i>Class</i>	: 3.3
<i>Group</i>	: III, page 3345
<i>Label</i>	: 3
<i>Mark</i>	: Marine pollutant (Deltamethrin-Esbiothrin)

15. REGULATORY INFORMATION

COMMUNITY REGULATIONS

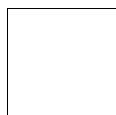
Labelling EC : According to EC regulations.

LOCAL REGULATIONS OF COUNTRY

Listed facilities : 1155 (France).

Professional diseases : Concerned : table 84 (France)

Symbols and labelling



EC: Not classified

SAFETY ADVICE (S)

- 13 : Keep away from food, drink and animal feedingstuffs.
2 : Keep out of the reach of children.



20/21 : When using do not eat, drink or smoke.

16. OTHER INFORMATION

Further indications : Refer also to technical instructions for use.

Document on reference : In-house data.

NOTA: (*) up-dated data.

The information given in this data sheet has been introduced in accordance with the guidelines established by article 10 of EEC directive, dated March 5, 1991. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to apply any additional national requirements.