

SAFETY DATA SHEET
(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : FENOX EC
UFI : HHAX-C136-900T-0EPF

1.2. Relevant identified uses of the substance or mixture and uses advised against

Professional use
Insecticide - biocidal use

Use descriptor system (REACH) :

Not available.

1.3. Details of the supplier of the safety data sheet

Registered company name : LODI S.A.S.
Address : PA des Quatre Routes.35390.Grand-Fougeray.FRANCE.
Telephone : 02.99.08.48.59. Fax : 02 99 08 38 68.
fds@lodi.fr
<https://www.lodi-group.fr/>

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net..>

Other emergency numbers

European poison Control Center: 112

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Reproductive toxicity, Effects on or via lactation (Lact., H362).
Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400).
Hazardous to the aquatic environment - Chronic hazard, Category 1 (Aquatic Chronic 1, H410).
This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

2.2. Label elements

Biocidal mixture (see section 15).

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS09

Signal Word :
WARNING

Product identifiers :
EC 407-980-2 ETOFENPROX (ISO)

Hazard statements :

H362 May cause harm to breast-fed children.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements - Prevention :

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P263 Avoid contact during pregnancy and while nursing.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.

Precautionary statements - Response :

P308 + P313 IF exposed or concerned: Get medical advice/attention.

Precautionary statements - Disposal :

P501 Dispose of contents/container according to the regulation.

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2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances $\geq 0.1\%$ with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
INDEX: 604_091_00_3 CAS: 80844-07-1 EC: 407-980-2 ETOFENPROX (ISO)	GHS09 Wng Lact., H362 Aquatic Acute 1, H400 M Acute = 100 Aquatic Chronic 1, H410 M Chronic = 1000		25 \leq x % < 50
INDEX: 89997637_CO2 CAS: 89997-63-7 EC: 289-699-3 CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM OBTAINED WITH SUPERCRITICAL CO2	GHS07, GHS09 Wng Acute Tox. 4, H302 Skin Sens. 1B, H317 Acute Tox. 4, H332 Aquatic Acute 1, H400 M Acute = 100 Aquatic Chronic 1, H410 M Chronic = 100		0 \leq x % < 2.5

Specific concentration limits:

Identification	Specific concentration limits	ATE
INDEX: 89997637_CO2 CAS: 89997-63-7 EC: 289-699-3 CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM OBTAINED WITH SUPERCRITICAL CO2		inhalation: ATE = 2.3 mg/l 4h (dust/mist) oral: ATE = 1030 mg/kg BW

Nanoform

Not available.

Information on ingredients :

(Full text of H-phrases: see section 16)

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures

In the event of exposure by inhalation :

Remove casualty to fresh air and keep warm and at rest. Seek medical attention if difficulties appear and persist.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

Remove contact lenses

In the event of splashes or contact with skin :

In case of skin exposure, clean skin with water then with soap. Seek medical attention if irritation or discomfort develops

Remove contaminated clothing, wash skin with soap and rinse thoroughly with water. Do not use solvents or thinners

In the event of swallowing :

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

In case of acute distress, contact 15 (or 112).

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Information for the doctor :

Treat symptomatically.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- carbon dioxide (CO₂)

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

5.3. Advice for firefighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

Remove persons to safety.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

Retain contaminated washing water and dispose it. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

Rapidly collect the product. To do so, wear a mask and protective clothing wash with plenty of water

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Avoid exposure to pregnant women and warn women of child-bearing age of the possible risks

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

. Don't use empty container before they have been cleaned

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Fire prevention :

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.
Observe precautions stated on label and also industrial safety regulations.
Avoid exposure - obtain special instructions before use.
Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep the container tightly closed in a dry, well-ventilated place.
The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.
Keep away from sources of ignition, heat and direct sunlight.
Keep away from food and drink and animal feeding stuffs.

Packaging

Always keep in packaging made of an identical material to the original.
Recommended types of packaging :
original packaging
Suitable packaging materials :
original packaging
Unsuitable packaging materials :
different than the original packaging

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.
Store personal protective equipment in a clean place, away from the work area.
Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.
Use eye protectors designed to protect against liquid splashes
Before handling, wear safety goggles in accordance with standard EN166.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.
Gloves must be selected according to the application and duration of use at the workstation.
Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.
Type of gloves recommended :
- PVA (Polyvinyl alcohol)
- Butyl Rubber (Isobutylene-isoprene copolymer)
Wash hands thoroughly after handling.

- Body protection

Suitable type of protective clothing :
In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.
Suitable type of protective boots :
In the event of spraying, wear waterproof boots or half-boots made of nitrile rubber in accordance with standard EN13832-3.
Work clothing worn by personnel shall be laundered regularly.
After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Type of mask with combined filters :
Wear a half mask in accordance with standard EN140.
with certified cartridge EN141 type EN A2P3.

- Thermal risks

Keep away from heat sources and direct sunlight.

Exposure controls linked to environmental protection

Do not discharge into drains or watercourses.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

Physical state : Fluid liquid.

Colour

Yellow translucent.

Odour

Odour threshold : Not stated.
slight

Melting point

Melting point/melting range : Not relevant.

Freezing point

Freezing point / Freezing range : Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range : Not relevant.

Flammability

Flammability (solid, gas) : Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) : Not stated.

Explosive properties, upper explosivity limit (%) : Not stated.

Flash point

Flash Point Interval : FP > 100°C.

Auto-ignition temperature

Self-ignition temperature : Not relevant.

Decomposition temperature

Decomposition point/decomposition range : Not relevant.

pH

pH (aqueous solution) : 6.40 (1%)

pH : Not stated.

Neutral.

Kinematic viscosity

Viscosity : Not stated.

Solubility

Water solubility : Dilutable.

Fat solubility : Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water : Not stated.

Vapour pressure

Vapour pressure (50°C) : Below 110 kPa (1.10 bar).

Density and/or relative density

Density : 1.033

Relative vapour density

Vapour density : Not stated.

9.2. Other information

No data available.

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Splashes in the eyes may cause irritation and reversible damage

Presents a risk on or via lactation.

11.1.1. Substances

Acute toxicity :

CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM
OBTAINED WITH SUPERCRITICAL CO₂ (CAS: 89997-63-7)

Oral route :	LD50 = 1030 mg/kg Species : Rat
Dermal route :	LD50 > 2000 mg/kg Species : Rabbit
Inhalation route (Dusts/mist) :	LC50 = 2.3 mg/l Species : Rat Duration of exposure : 4 h

ETOFENPROX (ISO) (CAS: 80844-07-1)

Oral route :	LD50 > 2000 mg/kg Species : Rat
Dermal route :	LD50 > 2000 mg/kg Species : Rat
Inhalation route (Dusts/mist) :	LC50 > 5.88 mg/l Species : Rat

11.1.2. Mixture

No toxicological data available for the mixture.

11.2. Information on other hazards

Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 128-37-0 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

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SECTION 12 : ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.1. Substances

CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM OBTAINED WITH SUPERCRITICAL CO2 (CAS: 89997-63-7)

Fish toxicity : LC50 = 0.0052 mg/l
Factor M = 100
Species : Oncorhynchus mykiss
Duration of exposure : 96 h

Crustacean toxicity : EC50 = 0.012 mg/l
Species : Daphnia magna
Duration of exposure : 48 h

Aquatic plant toxicity : ECr50 = 0.0014 mg/l
Duration of exposure : 96 h

ETOFENPROX (ISO) (CAS: 80844-07-1)

Fish toxicity : LC50 = 0.0027 mg/l
Species : Others
Duration of exposure : 96 h

NOEC = 0.0032 mg/l
Factor M = 10
Duration of exposure : 21 days

Crustacean toxicity : EC50 = 0.0012 mg/l
Species : Daphnia magna
Duration of exposure : 48 h

NOEC = 0.000054 mg/l
Factor M = 1000
Species : Daphnia magna
Duration of exposure : 21 days

Algae toxicity : ECr50 > 0.056 mg/l
Duration of exposure : 72 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM OBTAINED WITH SUPERCRITICAL CO2 (CAS: 89997-63-7)

Biodegradability : Non-rapidly degradable.

ETOFENPROX (ISO) (CAS: 80844-07-1)

Biodegradability : Non-rapidly degradable.

12.3. Bioaccumulative potential

12.3.1. Substances

ETOFENPROX (ISO) (CAS: 80844-07-1)

Bioaccumulation : BCF = 2565

CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM OBTAINED WITH SUPERCRITICAL CO2 (CAS: 89997-63-7)

Octanol/water partition coefficient : log K_{ow} > 4

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2021 - IMDG 2020 [40-20] - ICAO/IATA 2022 [63]).

14.1. UN number or ID number

3082

14.2. UN proper shipping name

UN3082=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(etofenprox (iso), chrysanthemum cinerariaefolium, extract from open and mature flowers of tanacetum cinerariifolium obtained with supercritical co2)

14.3. Transport hazard class(es)

- Classification :



9

14.4. Packing group

III

14.5. Environmental hazards

- Environmentally hazardous material :



14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	9	M6	III	9	90	5 L	274 335 375 601	E1	3	-

Not subject to this regulation if Q <= 5 l / 5 kg (ADR 3.3.1 - DS 375)

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	9	-	III	5 L	F-A. S-F	274 335 969	E1	Category A	-

Not subject to this regulation if Q <= 5 l / 5 kg (IMDG 3.3.1 - 2.10.2.7)

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	9	-	III	964	450 L	964	450 L	A97 A158 A197 A215	E1
	9	-	III	Y964	30 kg G	-	-	A97 A158 A197 A215	E1

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Not subject to this regulation if Q <= 5 l / 5 kg (IATA 4.4.4 - DS A197)

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

Marine pollutant (IMDG 3.1.2.9):(etofenprox (iso))

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

- Container information:

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH):
<https://echa.europa.eu/substances-restricted-under-reach>.

- Particular provisions :

No data available.

- Labelling for biocidal products (Regulation (UE) n° 528/2012) :

Name	CAS	%	Product-type
CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM OBTAINED WITH SUPERCRITICAL CO2	89997-63-7	0.97 g/kg	18
ETOFENPROX (ISO)	80844-07-1	292.84 g/kg	18

Product-type 18 : Insecticides, acaricides and products to control other arthropods.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H362	May cause harm to breast-fed children.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Abbreviations :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

NOEC : The concentration with no observed effect.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE : Acute Toxicity Estimate

BW : Body Weight

UFI : Unique formulation identifier.

STEL : Short-term exposure limit

TWA : Time Weighted Averages

TMP : French Occupational Illness table

TLV : Threshold Limit Value (exposure)

AEV : Average Exposure Value.

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

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WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS09 : Environment

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.