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Product name	Fenoxaprop-P-ethyl 120 g/l EC	Revision: September 2020
Safety data sheet according to EU Reg. 1907/2006 as amended		Supersedes March 2020

SAFETY DATA SHEET

Fenoxaprop-P-ethyl 120 g/l EC

Revision: Sections containing a revision or new information are marked with a ♣.

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

- 1.1. **Product identifier** **Fenoxaprop-P-ethyl 120 g/l EC**
Contains hydrocarbons, C10-C13, aromatics,
< 1% naphthalene
- 1.2. **Relevant identified uses of the substance or mixture and uses advised against** Can be used as herbicide only.
- 1.3. **Details of the supplier of the safety data sheet** **FCM Agricultural Solutions A/S**
 Thyborønvej 78
 DK-7673 Harbøre
 Denmark
SDS.Ronland@fmc.com
- 1.4. **Emergency telephone number**
Medical emergencies:
- | | |
|-------------------------------------|---|
| Austria: +43 1 406 43 43 | Malta: 112 |
| Belgium: +32 70 245 245 | Netherlands: +31 30 274 88 88 |
| Bulgaria: +359 2 9154 409 | Norway: +47 22 591300 |
| Cyprus: 1401 | Poland: +48 22 619 66 54 |
| Czech Republic: +420 224 919 293 | +48 22 619 08 97 |
| +420 224 915 402 | Portugal: 800 250 250 (in Portugal only) |
| Denmark: +45 82 12 12 12 | +351 21 330 3284 |
| England and Wales: 111 | Romania: +40 21318 3606 |
| Estonia: +372 7943500 | Scotland: +8454 24 24 24 |
| Finland: +358 9 471 977 | Slovakia: +421 2 54 77 4 166 |
| France: +33 (0) 1 45 42 59 59 | Slovenia: +386 41 650 500 |
| Greece: 30 210 77 93 777 | South Africa: +27 83 123 3911 (Bateleur Emergency Response Co.) |
| Hungary: +36 80 20 11 99 | Spain: +34 91 562 04 20 |
| Ireland (Republic): +353 1 837 9964 | Sweden: +46 08-331231 |
| Italy: +39 02 6610 1029 | 112 |
| Latvia: +371 670 42 473 | Switzerland: 145 |
| 112 | Turkey: 114 |
| Lithuania: +370 523 62052 | U.S.A. & Canada: +1 800 / 331 3148 |
| +370 687 53378 | All other countries: +1 651 / 632 6793 (Collect) |
| Luxembourg: +352 8002 5500 | |

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For fire, leak, spill or other accident emergencies:

U.S.A.: +1 800 / 424 9300 (CHEMTREC)
 All other countries: +1 703 / 741 5970 (CHEMTREC - Collect)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Eye irritation: Category 2 (H319)
 Specific target organ toxicity – repeated exposure: Category 2 (H373)
 Aspiration toxicity: Category 1 (H304)
 Hazards to the aquatic environment, acute: Category 1 (H400)
 chronic: Category 2 (H411)

WHO classification Class III, slightly hazardous

Health hazards The product may cause harmful effects after repeated or prolonged exposure. It has irritating properties.

Environmental hazards The product is very toxic to aquatic organisms.

2.2. Label elements

According to EU Reg. 1272/2008 as amended

Product identifier Fenoxaprop-P-ethyl 120 g/l EC
 Contains hydrocarbons, C10-C13, aromatics, < 1% naphthalene

Hazard pictograms (GHS07, GHS08, GHS09)



Signal word Danger

Hazard statements

H304 May be fatal if swallowed and enters airways.
 H319 Causes serious eye irritation.
 H373 May cause damage to kidneys through prolonged or repeated exposure.
 H410 Very toxic to aquatic life with long lasting effects.

Supplementary hazard statements

EUH066 Repeated exposure may cause skin dryness and cracking.
 EUH208 Contains fenoxaprop-P-ethyl and cloquintocet-mexyl. May produce an allergic reaction.
 EUH401 To avoid risks to human health and the environment, comply with the instructions of use.

Precautionary statements

P260 Do not breathe vapours.
 P264 Wash hands thoroughly after handling.
 P280 Wear eye protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

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- P310 contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a POISON CENTER or physician.
 P501 Dispose of contents and container as hazardous waste.
- 2.3. **Other hazards** None of the ingredients in the product meets the criteria for being PBT or vPvB.

♣ SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1. **Substances** The product is a mixture, not a substance.
- 3.2. **Mixtures** See section 16 for full text of hazard statements.

Active ingredient

Fenoxaprop-P-ethyl Content: 12% by weight
 CAS name Propanoic acid, 2-[4-[(6-chloro-2-benzoxazolyl)oxy]phenoxy]-, ethyl ester, (R)-
 CAS no. 71283-80-2
 IUPAC name (R)-Ethyl 2-[4-[(6-chloro-2-benzoxazolyl)oxy]phenoxy]propanoate
 ISO name Fenoxaprop-P-ethyl
 EC no. (EINECS no.) None
 EU index no. None
 Molecular weight 361.78
 Classification of the ingredient Sensitisation – skin: Category 1B (H317)
 Specific target organ toxicity – repeated exposure: Category 2 (H373)
 Hazards to the aquatic environment,
 acute: Category 1 (H400), M-factor 1
 chronic: Category 1 (H410), M-factor 1

Reportable ingredients

	Content (% w/w)	CAS no.	EC no.	Classification
Hydrocarbons, C10-C13, aromatics, < 1% naphthalene Reg. no. 01-2119451097-39	48		922-153-0	Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) EUH066
γ-Butyrolactone Reg. no. 01-2119471839-21	15	96-48-0	EINECS no.: 202-509-5	Acute Tox. 4 (H302) Eye Irrit. 2 (H319)
Alcohols, C9-11, ethoxylated	15	68439-46-3	None	Acute Tox. 4 (H302) Eye Dam. 1 (H318)
Calcium dodecylbenzenesulphonate	max. 3	26264-06-2	EINECS no.: 247-557-8	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)

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Cloquintocet-mexyl Reg. no. 01-0000012013-89-0000	3	99607-70-2	None	Acute Tox. 4 (H302) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) M-factor 1 Aquatic Chronic 1 (H410) M-factor 1 EUH401
2-Ethylhexan-1-ol	2	104-76-7	EINECS no.: 203-234-3	Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation	If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.
Skin contact	Immediately remove contaminated clothing and footwear. Flush skin with water. Wash with water and soap. See physician if irritation develops.
Eye contact	Immediately rinse eyes with much water or eyewash solution, occasionally opening eyelids, until no evidence of chemical remains. Remove contact lenses after a few minutes and rinse again. Get medical attention.
Ingestion	Inducing vomiting is not recommended. Rinse mouth and drink water or milk. If vomiting does occur, rinse mouth and drink fluids again. Get medical attention immediately.

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

Primarily irritation.

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

Immediate medical attention is required in case of ingestion.

It may be helpful to show this safety data sheet to physician.

Notes to physician

A specific antidote for exposure to this material is not known. Treatment of exposure is as for a general chemical. Gastric lavage and/or administration of activated charcoal can be considered.

The product contains petroleum distillates which may pose an inhalation pneumonia hazard.

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SECTION 5: FIRE-FIGHTING MEASURES

- 5.1. **Extinguishing media** Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Avoid heavy hose streams.
- 5.2. **Special hazards arising from the substance or mixture** The essential breakdown products are carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride and various organic chlorinated compounds.
- 5.3. **Advice for firefighters** Use water spray to keep fire-exposed containers cool. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water runoff. Firemen should wear self-contained breathing apparatus and protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1. **Personal precautions, protective equipment and emergency procedures** It is recommended to have a predetermined plan for the handling of spills. Empty, closable vessels for the collection of spills should be available.
- In case of large spill (involving 10 tonnes of the product or more):
1. use personal protection equipment; see section 8
 2. call emergency telephone no.; see section 1
 3. alert authorities.
- Observe all safety precautions when cleaning up spills. Use personal protection equipment. Depending on the magnitude of the spill this may mean wearing respirator, face mask or eye protection, chemical resistant clothing, gloves and boots.
- Stop the source of the spill immediately if safe to do so. Keep unprotected persons away from the spill area. Remove sources of ignition. Avoid and reduce mist formation as much as possible.
- 6.2. **Environmental precautions** Contain the spill to prevent any further contamination of surface, soil or water. Wash waters must be prevented from entering surface water drains. Uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.
- 6.3. **Methods and materials for containment and cleaning up** It is recommended to consider possibilities to prevent damaging effects of spills, such as bunding or capping. See GHS (Annex 4, Section 6).
- If appropriate, surface water drains should be covered. Minor spills on the floor or other impervious surface should be absorbed onto an absorptive material such as universal binder, hydrated lime, Fuller's earth or other absorbent clays. Collect the contaminated absorbent in suitable containers. Clean area with soda lye and much water. Absorb

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wash liquid with absorbent and transfer to suitable containers. The used containers should be properly closed and labelled.

Large spills which soak into the ground should be dug up and transferred to suitable containers.

Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal.

- 6.4. **Reference to other sections** See subsection 8.2. for personal protection.
 See section 13 for disposal.

♣ SECTION 7: HANDLING AND STORAGE

- 7.1. **Precautions for safe handling** In an industrial environment, it is recommended to avoid all personal contact with the product, if possible by using closed systems with remote system control. The material should be handled by mechanical means as much as possible. Adequate ventilation or local exhaust ventilation is required. The exhaust gases should be filtered or treated otherwise. For personal protection in this situation, see section 8.

For its use as a pesticide, first look for precautions and personal protection measures on the officially approved label on the packaging or for other official guidance or policy in force. If these are lacking, see section 8.

Remove contaminated clothing immediately. Wash thoroughly after handling. Before removing gloves, wash them with water and soap. After work, take off all work clothes and footwear. Take a shower, using water and soap. Wear only clean clothes when leaving job. Wash protective clothing and protective equipment with water and soap after each use.

Inhalation of vapours of the product can cause lowered consciousness, which increases the risks of operating machinery and driving.

Do not discharge to the environment. Do not contaminate water when disposing of equipment wash waters. Collect all waste material and remains from cleaning equipment, etc., and dispose of as hazardous waste. See section 13 for disposal.

- 7.2. **Conditions for safe storage, including any incompatibilities** The product should be stored at temperatures between 0 and 35°C. Protect against strong heat from sunshine or other source, e.g. fire.

Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. A warning sign reading "POISON" is recommended. The room should only be used for storage of chemicals. Food, drink, feed

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and seed should not be present. A hand wash station should be available.

- 7.3. **Specific end use(s)** The product is a registered pesticide which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Personal exposure limits To our knowledge, not established for fenoxaprop-P-ethyl.

Aromatic hydrocarbons 100 ppm total hydrocarbon is recommended.

However, other personal exposure limits defined by local regulations may exist and must be observed.

Fenoxaprop-P-ethyl

DNEL Not established
 The EFSA has established an AOEL of 0.014 mg/kg bw/day
 PNEC, aquatic environment 0.01 mg/l

Aromatic hydrocarbons

DNEL, dermal 12.5 mg/kg bw/day
 DNEL, inhalation 151 mg/m³
 PNEC, aquatic environment Not applicable

γ-Butyrolactone

DNEL, dermal 19 mg/kg bw/day
 DNEL, inhalation 130 mg/m³
 PNEC, aquatic environment 0.056 mg/l

8.2. Exposure controls

When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping systems non-hazardous before opening.

The precautions mentioned below are primarily meant for handling of the undiluted product and for preparing the spray solution, but can be recommended for spraying as well.

In cases of incidental high exposure, maximal personal protection may be necessary, such as respirator, face mask, chemical resistant coveralls.



Respiratory protection

The product does not automatically present an airborne exposure concern when handled carefully, but in the event of an accidental discharge of the material which produces a heavy vapour or mist, workers must put on officially approved respiratory protection

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equipment with a universal filter type including particle filter.



Protective gloves

Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. The breakthrough times of these materials for the product are unknown, but it is expected that they will give adequate protection.



Eye protection

Wear safety glasses. It is recommended to have an eye wash fountain immediately available in the workplace when there is a potential for eye contact.



Other skin protection

Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be discarded after use if contaminated. In cases of excessive or prolonged exposure, coveralls of barrier laminate may be required.

♣ SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Colour	Yellow
Odour	Of aromatic hydrocarbons
Melting point/freezing point	Below 0°C
Boiling point or initial boiling point and boiling range	Not determined
Flammability	Ignitable
Lower and upper explosive limit ..	Aromatic hydrocarbons : 0.6 - 7.0 vol% (≈ 0.6 - 0.7 kPa)
	γ-Butyrolactone : 2.7 - 17.5 vol% (≈ 2.7 - 17.5 kPa)
Flash point	98°C (Abel's closed cup)
Auto-ignition temperature	Not determined
Decomposition temperature	Not determined
pH	1% solution in water: 4.76 at 24°C
Kinematic viscosity	15.1 mm ² /s at 20°C, 11.1 mm ² /s at 40°C
Solubility	The product is dispersible in water. Solubility of fenoxaprop-P-ethyl at 20°C in: ethyl acetate > 380 g/l n-hexane 7.0 g/l water 0.7 mg/l
Partition coefficient n-octanol/water (log value)	Fenoxaprop-P-ethyl : log K _{ow} = 4.28 Aromatic hydrocarbons : some of the main components have log K _{ow} = 4.0 - 4.4 at 25°C by model calculation γ-Butyrolactone : log K _{ow} = -0.57 at 25°C

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Vapour pressure	Fenoxaprop-P-ethyl : 5.3×10^{-7} Pa at 20°C
	Aromatic hydrocarbons : < 0.1 kPa at 25°C
	γ-Butyrolactone : 40 Pa at 20°C
Density and/or relative density	Relative density: 1.043 at 20°C
Relative vapour density	(Air = 1)
	Aromatic hydrocarbons : > 1
Particle characteristics	Not applicable (liquid)

9.2. Other information

Evaporation rate	(Butyl acetate = 1)
	Aromatic hydrocarbons : < 0.01

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity	To our knowledge, the product has no special reactivities.
10.2. Chemical stability	The product is stable during normal handling and storage at ambient temperatures.
10.3. Possibility of hazardous reactions	None known.
10.4. Conditions to avoid	Heating of the product will produce harmful and irritant vapours.
10.5. Incompatible materials	Strong acids and alkalis.
10.6. Hazardous decomposition products	See subsection 5.2.

♣ SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008	* = Based on available data, the classification criteria are not met.
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Product

Acute toxicity	The product is not harmful by ingestion, inhalation or dermal contact. * However, it should always be treated with the usual care of handling chemicals. The acute toxicity of the product is measured as:
Route(s) of entry	
- ingestion	LD ₅₀ , oral, rat: 3129 mg/kg (method OPPTS 870.1100)
- skin	LD ₅₀ , dermal, rat: > 2000 mg/kg (method OPPTS 870.1200)
- inhalation	LC ₅₀ , inhalation, rat: > 1.08 mg/l/4 h (method OPPTS 870.1300)
Skin corrosion/irritation	Mildly irritating to skin (method OPPTS 870.2500). *
Serious eye damage/irritation	Moderately irritating to eyes (method OPPTS 870.2400).
Respiratory or skin sensitisation ...	Not sensitising to skin (method OPPTS 870.2600).
Germ cell mutagenicity	The product contains no ingredient known to be mutagenic. *

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Carcinogenicity	The product contains no ingredient known to be carcinogenic. *
Reproductive toxicity	The product contains no ingredient found to have adverse effects on reproduction. *
STOT – single exposure	To our knowledge, no specific effects have been observed after single exposure. *
STOT – repeated exposure	The following is valid for the active ingredient fenoxaprop-P-ethyl. Target organs: liver and kidneys, increased organ weight NOAEL: 20 ppm (2 mg/kg bw/day) in a 90-day rat study.
Aspiration hazard	The product presents an aspiration hazard.

Fenoxaprop-P-ethyl

Toxicokinetics, metabolism and distribution	Fenoxaprop-P-ethyl is rapidly absorbed after oral intake, but only to a limited extent (approx. 40%). It is widely distributed in the body, with the highest concentrations found in the liver, kidneys, blood and fatty tissues. It is extensively metabolised and rapidly excreted. There is no indication of accumulation.
Acute toxicity	The substance is not harmful by ingestion, inhalation or dermal contact. * The acute toxicity is measured as:
Route(s) of entry	- ingestion LD ₅₀ , oral, rat: 3150 - 4000 mg/kg (method OECD 401)
	- skin LD ₅₀ , dermal, rat: > 2000 mg/kg (method US-EPA 81-2)
	- inhalation LC ₅₀ , inhalation, rat: > 1.224 mg/l/4 h (method OECD 403)
Skin corrosion/irritation	Slightly irritating to skin (method US-EPA 81-5). *
Serious eye damage/irritation	Slightly irritating to eyes (method US-EPA 81-4). *
Respiratory or skin sensitisation ...	Sensitising (method US-EPA 81-6).

Hydrocarbons, C10-C13, aromatics, < 1% naphthalene

Acute toxicity	The substance is not considered as harmful. * The acute toxicity as measured on a similar product is:
Route(s) of entry	- ingestion LD ₅₀ , oral, rat: > 5000 mg/kg (method OECD 401)
	- skin LD ₅₀ , dermal, rat: > 2000 mg/kg (method OECD 402)
	- inhalation LC ₅₀ , inhalation, rat: > 4.7 mg/l (method OECD 403)
Skin corrosion/irritation	Can cause skin dryness (measured on similar products; method OECD 404).
Serious eye damage/irritation	May cause mild, short-lasting discomfort to eyes (measured on similar products; method OECD 405). *

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Respiratory or skin sensitisation ...	Not expected to cause respiratory or skin sensitisation (measured on similar products; method OECD 406). *
Aspiration hazard	Aromatic hydrocarbons present an aspiration hazard.
<u><i>γ-Butyrolactone</i></u>	
Toxicokinetics, metabolism and distribution	γ-Butyrolactone is rapidly and completely absorbed and distributed primarily to plasma and liver. It is rapidly metabolised and eliminated primarily as respiratory carbon dioxide and urinary metabolites.
Acute toxicity	The substance is harmful by ingestion. It is not considered as harmful by inhalation or skin contact. The acute toxicity is measured as:
Route(s) of entry	
- ingestion	LD ₅₀ , oral, rat: 1582 mg/kg
- skin	LD ₅₀ , dermal, guinea pig: > 5000 mg/kg *
- inhalation	LC ₅₀ , inhalation, rat: > 5.1 mg/l/4 h *
Skin corrosion/irritation	Not irritating to skin. *
Serious eye damage/irritation	Seriously irritating to eyes (method OECD 405).
Respiratory or skin sensitisation ...	Not sensitising to skin in animal tests. To our knowledge, allergenic effects have not been reported. *
STOT – single exposure	May have narcotic effects by inhalation.
<u><i>Alcohols, C9-11, ethoxylated</i></u>	
Acute toxicity	The product is harmful if swallowed.
Route(s) of entry	
- ingestion	LD ₅₀ , oral, rat: 1000 - 1400 mg/kg
- skin	LD ₅₀ , dermal, rabbit: > 2000 mg/kg (method OECD 402) *
- inhalation	LC ₅₀ , inhalation, rat: not available
Skin corrosion/irritation	May cause skin irritation. *
Serious eye damage/irritation	Severely irritating to eyes.
STOT – single exposure	Inhalation can be expected to cause irritation of airways.
<u><i>Calcium dodecylbenzenesulphonate</i></u>	
Acute toxicity	The substance is not considered as harmful by skin contact, ingestion and inhalation. *
Skin corrosion/irritation	Irritating to skin.
Serious eye damage/irritation	Irritating to eyes with the potential to cause permanent eye damage.

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Cloquintocet-mexyl

Acute toxicity	The substance is harmful by ingestion. The acute toxicity is measured as:
Route(s) of entry	- ingestion LD ₅₀ , oral, rat: 1098 mg/kg (method OECD 425)
	- skin LD ₅₀ , dermal, rat: > 2000 mg/kg (method OECD 402) *
	- inhalation LC ₅₀ , inhalation, rat: > 5.05 mg/l (method OECD 403) *
Skin corrosion/irritation	Mildly irritating to skin (method OECD 404). *
Serious eye damage/irritation	Mildly irritating to eyes (method OECD 405). *
Respiratory or skin sensitisation ...	Skin sensitizer (method OECD 429).

2-Ethylhexan-1-ol

Toxicokinetics, metabolism and distribution	After oral administration, the substance is rapidly absorbed. It was rapidly excreted within the first 24 hr predominantly in the urine. Glucuronides of oxidized metabolites prevailed with almost no parent compound left. There is no indication of bioaccumulation.
Acute toxicity	The substance is not considered as harmful. * The acute toxicity is measured as:
Route(s) of entry	- ingestion LD ₅₀ , oral, rat: 3290 mg/kg (method OECD 401)
	- skin LD ₅₀ , dermal, rat: > 3000 mg/kg (method OECD 402)
	- inhalation LC ₅₀ , inhalation, rat: 0.89 - 5.3 mg/l/4 h (method OECD 403)
	Not harmful at saturated vapour pressure (approx. 0.89 mg/l). Harmful at 5.3 mg/l, a mixture of vapour and droplets.
Skin corrosion/irritation	Mildly irritating to skin.
Serious eye damage/irritation	Moderately to severely irritating to eyes.
Respiratory or skin sensitisation ...	Not a skin sensitizer. *
11.2. Information on other hazards	No more relevant information is available.

♣ SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity	The product is very toxic to aquatic plants. It may be toxic or harmful to fish and aquatic invertebrates. It is not considered as harmful to birds, soil micro- and macroorganisms and insects.
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The following has been measured on the product:

- Algae	Green algae (<i>Pseudokirchneriella subcapitata</i>)	72-h ErC ₅₀ : 0.826 mg/l
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12.2. Persistence and degradability

Fenoxaprop-P-ethyl is biodegradable, but does not meet the criteria for being readily biodegradable. Primary degradation half-lives are found to be less than 1 day in aerobic soil.

Aromatic hydrocarbons are readily biodegradable as measured according to OECD guidelines. However, they are not always rapidly degraded in the environment, but are expected to be degraded at a moderate rate, depending on circumstances.

The product contains minor amounts of not readily biodegradable components, which may not be degradable in waste water treatment plants.

12.3. Bioaccumulative potential

See section 9 for octanol-water partition coefficients.

Due to rapid degradation, **fenoxaprop-P-ethyl** does not bioaccumulate.

Aromatic hydrocarbons have a potential to bioaccumulate if continuous exposure is maintained. Most components can be metabolised by many organisms. Bioaccumulation factors (BCFs) of some of the main components are 1200 - 3200 by model calculation.

12.4. Mobility in soil

The active ingredient **fenoxaprop-P-ethyl** has low mobility in soil.

Aromatic hydrocarbons are not mobile in the environment, but are volatile and will evaporate to the air if released onto water or on the surface of soil. They float and can migrate to sediment.

12.5. Results of PBT and vPvB assessment

None of the ingredients meets the criteria for being PBT or vPvB.

12.6. Endocrine disrupting properties

None of the ingredients is known to have endocrine disrupting properties.

12.7. Other adverse effects

Other relevant hazardous effects in the environment are not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste.

Disposal of waste and packagings must always be in accordance with all applicable local regulations.

Disposal of product

According to the Waste Framework Directive (2008/98/EC), possibilities for reuse or reprocessing should first be considered. If this is not possible, the material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.

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Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Disposal of packaging

It is recommended to consider possible ways of disposal in the following order:

1. Reuse or recycling should first be considered. Reuse is prohibited except by the authorisation holder. If offered for recycling, containers must be emptied and triply rinsed (or equivalent). Do not discharge rinsing water to sewer systems.
2. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.
3. Delivery of the packaging to a licensed service for disposal of hazardous waste.
4. Disposal in a landfill or burning in open air should only occur as a last resort. For disposal in a landfill, containers should be emptied completely, rinsed and punctured to make them unusable for other purposes. If burned, stay out of smoke.

♣ SECTION 14: TRANSPORT INFORMATION

ADR/RID/IMDG/IATA/ICAO classification

- | | |
|--|---|
| 14.1. UN number | 3082 |
| 14.2. UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s. (fenoxaprop-P-ethyl and alkyl(C3-C6)benzenes) |
| 14.3. Transport hazard class(es) | 9 |
| 14.4. Packing group | III |
| 14.5. Environmental hazards | Marine pollutant |
| 14.6. Special precautions for user | Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not discharge to the environment. |
| 14.7. Maritime transport in bulk according to IMO instruments .. | The product is not transported in bulk by ship. |

SECTION 15: REGULATORY INFORMATION

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| 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture | Seveso category (Dir. 2012/18/EU): dangerous for the environment

Young people under the age of 18 are not allowed to work with the substance.

All ingredients are covered by EU chemical legislation. |
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- 15.2. **Chemical safety assessment** A chemical safety assessment is not required to be included for this product.

♣ SECTION 16: OTHER INFORMATION

Relevant changes in the safety data sheet

Minor corrections only.

List of abbreviations

AOEL	Acceptable Operator Exposure Level
CAS	Chemical Abstracts Service
Dir.	Directive
DNEL	Derived No Effect Level
EC	Emulsifiable Concentrate, or European Community
E _r C ₅₀	50% Effect Concentration based on growth
EFSA	European Food Safety Authority
EINECS	European INventory of Existing Commercial Chemical Substances
GHS	Globally Harmonized classification and labelling System Of chemicals, seventh revised edition 2017
IMO	International Maritime Organisation
ISO	International Organisation for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC ₅₀	50% Lethal Concentration
LD ₅₀	50% Lethal Dose
NOAEL	No Observed Adverse Effect Level
n.o.s.	Not otherwise specified
OECD	Organisation for Economic Cooperation and Development
OPPTS	Office of Prevention, Pesticides and Toxic Substances
PBT	Persistent, Bioaccumulative, Toxic
PNEC	Predicted No Effect Concentration
Reg.	Registration, or Regulation
STOT	Specific Target Organ Toxicity
US-EPA	Environmental Protection Agency USA
vPvB	very Persistent, very Bioaccumulative
WHO	World Health Organisation

References

Data measured on the product are unpublished company data. Data on ingredients are available from published literature and can be found several places.

Method for classification

Eye irritation: test data
 Specific target organ toxicity – repeated exposure: calculation method
 Aspiration toxicity: test data
 Hazards to the aquatic environment, acute: test data
 chronic: calculation method

Used hazard statements

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.

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- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 May cause serious eye damage.
- H319 May cause serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H373 May cause damage to kidneys through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- EUH066 Repeated exposure may cause skin dryness and cracking.
- EUH401 To avoid risks to human health and the environment, comply with the instructions of use.

Advice on training This material should only be used by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions.

The information provided in this safety data sheet is believed to be accurate and reliable, but uses of the product vary and situations unforeseen by FMC Corporation may exist. The user has to check the validity of the information under local circumstances.

Prepared by: FMC Agricultural Solutions A/S / GHB