



ETHREL SL480 4X5L BOT PH

Version 3 / RP
10200001940

1/11
Revision Date: 26.02.2020
Print Date: 24.01.2022

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

1.1 Product identifier

Trade name ETHREL SL480 4X5L BOT PH
Product code (UVP) 05927277

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

Use Growth regulator

1.3 Details of the supplier of the safety data sheet

Company Bayer CropScience, Inc.
3/F Bayer House
Canlubang Industrial Estate
Calamba, Laguna
Philippines

Telephone +63 2 226-4888

Telefax +63 2 450-5474

1.4 Emergency telephone no.

Emergency telephone no. Bayer CropScience, Inc.
+63 2 226-4915 (24-Hour Emergency Assistance)
National Poison Management and Control Center
Tel. No. +63 2 524-1078, +63 2 567-2057
Mobile No. +63922-8961541 Fax No. +63 2 526-0062
Southern Philippines Medical Center (SPMC)
+63 2 227-2731

Global Incident Response Hotline (24h) +1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Corrosive to metals: Category 1
H290 May be corrosive to metals.

Serious eye damage: Category 1
H318 Causes serious eye damage.

Chronic aquatic toxicity: Category 2
H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and



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packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Ethephon



Signal word: Danger

Hazard statements

- H290 May be corrosive to metals.
- H318 Causes serious eye damage.
- H411 Toxic to aquatic life with long lasting effects.
- EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

- P234 Keep only in original container.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor/ physician.
- P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

Soluble concentrate (SL)
Ethephon 480 g/l SL

Hazardous components

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Ethephon	16672-87-0	Aquatic Chronic 2, H411 Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 4, H332 Skin Corr. 1C, H314	39.70

Further information



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For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
Inhalation	Move to fresh air. Keep patient warm and at rest.
Skin contact	Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Do NOT induce vomiting. Keep at rest. Rinse mouth. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	Local:, Burns on skin and mucosal tissues Systemic:, Gastro-intestinal irritation, This product causes reversible cholinesterase inhibition without long term effects.
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4.3 Indication of any immediate medical attention and special treatment needed

Risks	Must NOT be confused with organophosphorus compounds!
Treatment	Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. There is no specific antidote. Contraindication: atropine.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable	High volume water jet

5.2 Special hazards arising from the substance or mixture	Dangerous gases are evolved in the event of a fire., In the event of fire the following may be released:, Carbon monoxide (CO), Nitrogen oxides (NOx), Oxides of phosphorus, Hydrogen chloride (HCl)
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5.3 Advice for firefighters

Special protective equipment for firefighters	In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit.
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Further information Whenever possible, contain fire-fighting water by diking area with sand or earth. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions Keep people away from and upwind of spill/leak. Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke. Use personal protective equipment.

6.2 Environmental precautions Do not allow to get into surface water, drains and ground water.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up Recover the product by pumping, suction or absorption using a dry and inert absorbent clay. Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice Check also for any local site procedures.

6.4 Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion Keep away from heat and sources of ignition.

Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Remove contaminated clothing immediately and dispose of safely. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in original container. Store in a place accessible by authorized persons only. Keep containers tightly closed in a cool, well-ventilated place. Protect from freezing. Keep away from direct sunlight.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

Suitable materials HDPE (high density polyethylene)



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7.3 Specific end use(s) Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Ethephon	16672-87-0	1.4 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

8.2 Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

Respiratory protection is not required under anticipated circumstances of exposure.
Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.
Material Nitrile rubber
Rate of permeability > 480 min
Glove thickness > 0.4 mm
Protective index Class 6
Directive Protective gloves complying with EN 374.

Eye protection

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent) and faceshield (conforming to EN166, Field of Use = 3 or equivalent).

Skin and body protection

Wear standard coveralls and Category 3 Type 6 suit.
If there is a risk of significant exposure, consider a higher protective type suit.
Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

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Form	Liquid
Colour	colourless to brown
Odour	characteristic
Odour Threshold	No data available
pH	< 1 (100 %) (23 °C)
Melting point/range	No data available
Boiling Point	100 °C
Flash point	No data available
Flammability	No data available
Auto-ignition temperature	600 °C
Self-accelarating decomposition temperature (SADT)	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Vapour pressure	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Density	ca. 1.21 g/cm ³ (20 °C)
Water solubility	completely miscible
Partition coefficient: n-octanol/water	Ethephon: log Pow: -1.89
Viscosity, dynamic	No data available
Viscosity, kinematic	No data available
Surface tension	55.4 mN/m
Oxidizing properties	No data available
Explosivity	No data available
9.2 Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity****Thermal decomposition** 170 °C**10.2 Chemical stability** Stable under recommended storage conditions.



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10.3 Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions. Corrodes metals in the presence of water or moisture. Risk of ethylene emission in case of increasing pH.
10.4 Conditions to avoid	Extremes of temperature and direct sunlight.
10.5 Incompatible materials	Metals
10.6 Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity	LD50 (Rat) > 2,000 mg/kg
Acute dermal toxicity	LD50 (Rat) 2,000 mg/kg ATE (Mix) (Rabbit) 2,000 mg/kg Calculation method
Skin corrosion/irritation	Slight irritant effect - does not require labelling. (Rabbit)
Serious eye damage/eye irritation	Severe eye irritation. (Rabbit)
Respiratory or skin sensitisation	Skin: Non-sensitizing.

Assessment STOT Specific target organ toxicity – single exposure

Ethephon: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

Ethephon did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Ethephon was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Ethephon was not carcinogenic in lifetime feeding studies in rats and mice.

Assessment toxicity to reproduction

Ethephon did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Ethephon did not cause developmental toxicity in rats and rabbits.

Aspiration hazard

Based on available data, the classification criteria are not met.



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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)) 720 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient ethephon.

Toxicity to aquatic invertebrates EC50 (Daphnia magna (Water flea)) > 1,000 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient ethephon.

Toxicity to aquatic plants EC50 (Raphidocelis subcapitata (freshwater green alga)) 13 mg/l
Exposure time: 72 h
The value mentioned relates to the active ingredient ethephon.
EC50 (Lemna gibba (gibbous duckweed)) > 1.6 mg/l
Exposure time: 14 d
The value mentioned relates to the active ingredient ethephon.
EC10 (Lemna gibba (gibbous duckweed)) 0.21 mg/l
The value mentioned relates to the active ingredient ethephon.

12.2 Persistence and degradability

Biodegradability Ethephon:
Not rapidly biodegradable

Koc Ethephon: Koc: 2540

12.3 Bioaccumulative potential

Bioaccumulation Ethephon:
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil Ethephon: Slightly mobile in soils

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment Ethephon: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Additional ecological information No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.



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Contaminated packaging Triple rinse containers.
Do not re-use empty containers.
Not completely emptied packagings should be disposed of as hazardous waste.

Waste Key In accordance with Section 2.0 - Classification of Hazardous Waste (DENR administrative order 2013-22 as amended):

J201 - Containers previously containing toxic chemical substances
M504 - Pesticides

SECTION 14: TRANSPORT INFORMATION

ADR/RID/ADN

14.1 UN number	3265
14.2 Proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (ETHEPHON SOLUTION)
14.3 Transport hazard class(es)	8
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES
Hazard no.	80
Tunnel Code	E

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

IMDG

14.1 UN number	3265
14.2 Proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (ETHEPHON SOLUTION)
14.3 Transport hazard class(es)	8
14.4 Packaging Group	III
14.5 Marine pollutant	YES
Segregation group according to 5.4.1.5.11.1	IMDG SEGREGATION GROUP 1 - ACIDS

IATA

14.1 UN number	3265
14.2 Proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (ETHEPHON SOLUTION)
14.3 Transport hazard class(es)	8
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No transport in bulk according to the IBC Code.

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WHO-classification: III (Slightly hazardous)

Labelling According to Fertilizer and Pesticide Authority
Pesticide Regulatory Policies and Implementing Guidelines 2nd Edition
Classification of Pesticides Based on Toxicity and Hazard**SECTION 16: OTHER INFORMATION****Text of the hazard statements mentioned in Section 3**

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
EC-No.	European community number
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World health organisation



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The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. 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 observe any additional national requirements.

Reason for Revision: The following sections have been revised: Section 4: First Aid Measures. Section 7: Handling and Storage.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.