



FINISH® 6 PRO HARVEST AID FOR COTTON

Version 3 / EU
102000004875

1/12
Revision Date: 07.04.2023
Print Date: 28.02.2024

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

1.1 Product identifier

Trade name FINISH® 6 PRO HARVEST AID FOR COTTON
Product code (UVP) 05952697

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

Use Plant growth regulator

1.3 Details of the supplier of the safety data sheet

Supplier Bayer AG
Kaiser-Wilhelm-Allee 1
51373 Leverkusen
Germany

Telefax +49(0)2173-38-7394

Responsible Department Chemical Regulatory Affairs
+49(0)2173-38-3409 (during business hours only)
Email: BCS-SDS@bayer.com

1.4 Emergency telephone no.

Emergency telephone no. 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.

Skin irritation: Category 2
H315 Causes skin irritation.

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 packaging of substances and mixtures, as amended.

Hazard label for supply/use required.



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Hazardous components which must be listed on the label:

- Ethephon
- Cyclanilide



Signal word: Danger

Hazard statements

H290	May be corrosive to metals.
H315	Causes skin irritation.
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.
P308 + P311	IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No additional hazards known beside those mentioned.

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). Cyclanilide: 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).

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

**FINISH® 6 PRO HARVEST AID FOR COTTON**Version 3 / EU
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Ethephon/Cyclanilide 720:45 g/l SC**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	16672-87-0 240-718-3	Acute Tox. 4, H302 Acute Tox. 4, H332 Aquatic Chronic 2, H411 Acute Tox. 3, H311 Skin Corr. 1C, H314	51,8
Cyclanilide	113136-77-9 419-150-7	Acute Tox. 4, H302 Aquatic Chronic 2, H411	3,24
Polyoxyethylene- nonylphenyl-ether- phosphate	68412-53-3 614-460-0	Eye Dam. 1, H318 Skin Irrit. 2, H315 Aquatic Chronic 3, H412	$\geq 3,0 - < 10,0$
Citric acid	77-92-9 201-069-1 01-2119457026-42-XXXX	Eye Irrit. 2, H319 STOT SE 3, H335	$\geq 1,0 - < 10,0$

Further information

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

Particle characteristics

This substance/ mixture does not contain nanoforms

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. Call a physician or poison control center immediately.

Skin contact

Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. Call a physician or poison control center immediately.

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

Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed



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Symptoms	Symptoms and hazards refer to effects observed after intake of significant amounts of the active ingredient(s)., Local:., Burns on skin and mucosal tissues Systemic:., Gastro-intestinal irritation, This product causes reversible cholinesterase inhibition without long term effects.
4.3 Indication of any immediate medical attention and special treatment needed	
Risks	Must NOT be confused with organophosphorus compounds!
Treatment	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. 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.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable	Foam, Water, Carbon dioxide (CO ₂), Dry chemical
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 (NO _x), Oxides of phosphorus, Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid)
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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.
Further information	Contain the spread of the fire-fighting media. 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	Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.
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6.2 Environmental precautions	Do not allow to get into surface water, drains and ground water.
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6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.
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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	Use only in area provided with appropriate exhaust ventilation.
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. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Protect from frost. Keep away from direct sunlight.
Advice on common storage	Keep away from food, drink and animal feedingstuffs.
Suitable materials	HDPE (high density polyethylene)
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*
Cyclanilide	113136-77-9	0,21 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
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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.

If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Form	Liquid
Colour	brown
Odour	none
Odour Threshold	No data available
Melting point/range	No data available
Boiling Point	No data available
Flammability	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Flash point	> 86 °C
Auto-ignition temperature	No data available

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Self-accelarating decomposition temperature (SADT)	No data available
pH	ca. 1,7 (1 %) (23 °C) (deionized water) (as aqueous solution)
Viscosity, dynamic	450 - 900 mPa.s (25 °C)
Viscosity, kinematic	No data available
Water solubility	dispersible
Partition coefficient: n-octanol/water	Ethephon: log Pow: -1,89 Cyclanilide: Pow: 1.779 (21 °C) (pH 5) Cyclanilide: Pow: 1.779 (21 °C) (pH 9)
Vapour pressure	No data available
Density	1,39 g/cm ³ (20 °C)
Relative density	No data available
Relative vapour density	No data available
Assessment nano particles	This substance/ mixture does not contain nanoforms
Particle size	No data available
9.2 Other information	
Explosivity	No data available
Oxidizing properties	No data available
Evaporation rate	No data available
Other physico-chemical properties	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions. Risk of ethylene emission in case of increasing pH. Corrodes metals in the presence of water or moisture. Corrodes aluminium.

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10.4 Conditions to avoid	Extremes of temperature and direct sunlight.
10.5 Incompatible materials	Store only in the original container., Tin, Zinc, Iron, Copper, Bases, Aluminium
10.6 Hazardous decomposition products	Thermal decomposition can lead to release of: Hydrogen chloride (HCl) Carbon oxides

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on hazard classes as defined in regulation (EC) No 1272/2008**

Acute oral toxicity	LD50 (Rat) > 2.000 - < 5.000 mg/kg
Acute inhalation toxicity	LC50 (Rat) > 2,5 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. No deaths
Acute dermal toxicity	LD50 (Rabbit) > 2.000 mg/kg
Skin corrosion/irritation	Moderate skin irritation. (Rabbit)
Serious eye damage/eye irritation	Corrosive - causes irreversible eye damage. (Rabbit)
Respiratory or skin sensitisation	Non-sensitizing. (Guinea pig)

Assessment STOT Specific target organ toxicity – single exposure

Ethephon: Based on available data, the classification criteria are not met.
Cyclanilide: 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.
Cyclanilide 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.
Cyclanilide was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Ethephon was not carcinogenic in lifetime feeding studies in rats and mice.
Cyclanilide 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.
Cyclanilide caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Cyclanilide is related to parental toxicity.

Assessment developmental toxicity

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Ethephon did not cause developmental toxicity in rats and rabbits.
Cyclanilide caused developmental toxicity only at dose levels toxic to the dams.
No indication of developmental toxicity in animal tests.

Aspiration hazard

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

11.2 Information on other hazards**Endocrine disrupting properties**

Assessment The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxicity to fish LC50 (*Lepomis macrochirus* (Bluegill sunfish)) 311 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient ethephon.
LC50 (*Oncorhynchus mykiss* (rainbow trout)) > 11 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient cyclanilide.

Toxicity to aquatic invertebrates EC50 (*Daphnia magna* (Water flea)) 31,7 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient ethephon.
EC50 (*Daphnia* (water flea)) 5 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient cyclanilide.

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 (*Raphidocelis subcapitata* (freshwater green alga)) 1,7 mg/l
Exposure time: 120 h
The value mentioned relates to the active ingredient cyclanilide.
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
Cyclanilide:
Not rapidly biodegradable

Koc Ethephon: Koc: 2540
Cyclanilide: Koc: 358



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12.3 Bioaccumulative potential

Bioaccumulation Ethephon:
Does not bioaccumulate.
Cyclanilide: Bioconcentration factor (BCF) 0,36
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil Ethephon: Slightly mobile in soils
Cyclanilide: Moderately 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).
Cyclanilide: 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 Endocrine disrupting properties

Assessment The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 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.

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

Waste key for the unused product **02 01 08*** agrochemical waste containing hazardous substances

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**



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14.5 Environm. Hazardous Mark NO
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 NO

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 NO

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to IMO instruments

No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION

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

Further information

WHO-classification: III (Slightly hazardous)

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.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.

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H412 Harmful 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

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2020/878 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: Safety Data Sheet according to Regulation (EU) No. 2020/878. Checked and revised for editorial purposes due to adjustments according to the current Annex II of the REACH regulation.

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