



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Estet EC

Version 7 (Russia)

Issuing date: 2016/04/08

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

1.1. Product identifier

Trade name : **Estet EC**

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

Use : Herbicide

1.3. Details of the supplier of the safety data sheet

Nufarm GmbH & Co KG
St.-Peter-Str. 25
A-4021 Linz
Austria
Telephone: +43/732/6918-3187
Telefax: +43/732/6918-63187
E-mail address: Katharina.Krueger@at.nufarm.com

1.4. Emergency telephone number

+43/732/6914-2466 (Linz/Austria production site)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

EG_1272/08 :	SkinIrrit.2	H315 - Causes skin irritation.
	SkinSens.1	H317 - May cause an allergic skin reaction.
	AquaticAcute1	H400 - Very toxic to aquatic life.
	AquaticChronic1	H410 - Very toxic to aquatic life with long lasting effects.

2.2. Label elements

REGULATION (EC) No 1272/2008

Pictogram:



GHS07



GHS09

Signal word: Warning

- H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H410 - Very toxic to aquatic life with long lasting effects.
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.
- P261 - Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 - Wash hands thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.
P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention.

2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture of active ingredient and additives
2,4-D 600 g/l

3.2. Mixtures

Components:

2,4-D 2EHE

CAS-No.: 1928-43-4
EINECS-No. / ELINCS No.: 217-673-3
REACH No.:
Concentration: 82,3 % (w/w)

Classification:
EG_1272/08 : AcuteTox.4 H302 - Harmful if swallowed.



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SkinSens.1	H317 - May cause an allergic skin reaction.
AquaticAcute1	H400 - Very toxic to aquatic life.
AquaticChronic1	H410 - Very toxic to aquatic life with long lasting effects.

Distillates (petroleum), hydrotreated light, Kerosine - unspecified

CAS-No.:	64742-47-8
EINECS-No. / ELINCS No.:	265-149-8
REACH No.:	01-2119485032-45
Concentration:	5,0% - 10,0% (w/w)

Classification:

EG_1272/08 :	Asp.Tox.1	H304 - May be fatal if swallowed and enters airways.
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Ca-dodecyl benzene sulfonat

CAS-No.:	26264-06-2
EINECS-No. / ELINCS No.:	247-557-8
REACH No.:	01-2119560592-37
Concentration:	1,0% - 5,0% (w/w)

Classification:

EG_1272/08 :	SkinIrrit.2	H315 - Causes skin irritation.
	EyeDam.1	H318 - Causes serious eye damage.

2-Ethylhexanol

CAS-No.:	104-76-7
EINECS-No. / ELINCS No.:	203-234-3
REACH No.:	01-2119487289-20
Concentration:	0,5% - 3,0% (w/w)

Classification:

EG_1272/08 :	AcuteTox.4	H332 - Harmful if inhaled.
	SkinIrrit.2	H315 - Causes skin irritation.
	EyeIrrit.2	H319 - Causes serious eye irritation.
	STOT_SE3	H335 - May cause respiratory irritation.

2,4-Dichlorophenol

CAS-No.:	120-83-2
EINECS-No. / ELINCS No.:	204-429-6
REACH No.:	01-2119513326-47
Concentration:	0,0% - 0,2% (w/w)

Classification:

EG_1272/08 :	AcuteTox.3	H311 - Toxic in contact with skin.
	AcuteTox.4	H302 - Harmful if swallowed.
	SkinCorr.1B	H314 - Causes severe skin burns and eye damage.
	AquaticChronic2	H411 - Toxic to aquatic life with long lasting effects.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice : When symptoms persist or in all cases of doubt seek medical advice.



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- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.
- Skin contact : Wash off immediately with soap and plenty of water.
- Inhalation : Move to fresh air.
- Ingestion : If ingested, irrigate the stomach. Rinse mouth. Do NOT induce vomiting. If swallowed, seek medical advice immediately and show this container or label.

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

- Symptoms : From experiments with animals: , sweating, headache, weakness, Diarrhoea, anorexia, Nausea, Salivation, stomach pains, Blurred vision, muscle twitching, Convulsions, loss of reflex, heart and circulatory collaps, Coma

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

- Treatment : No specific antidote, symptomatic treatment. As the elimination occurs via the kidneys a dialyse is appropriate. Control of water and electrolytes balance.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

- Suitable extinguishing media : Water spray, Dry powder, Sand, Foam, Carbon dioxide (CO₂)
- Extinguishing media which shall not be used for safety reasons : High volume water jet

5.2. Special hazards arising from the substance or mixture

- Specific hazards during firefighting : In the event of fire (HCl, Cl₂, NO_x, CO) may be formed.

5.3. Advice for firefighters

- Special protective equipment for firefighters : Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.
- Further Information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.



SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. (see Chapter 8)

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

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). Use mechanical handling equipment.

Additional advice : Never return spills in original containers for re-use.

6.4. Reference to other sections

see Chapter 13

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling advice : Wear personal protective equipment. Keep out of the reach of children.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container.

Advice on common storage : Keep away from food, drink and animal feeding stuffs.

Storage stability

Storage temperature : > -20 °C
: < 30 °C

7.3. Specific end use(s)

none

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters

Components	CAS-No.	National occupational exposure limits	Note
2,4-D 2EHE	1928-43-4		no classification available
Distillates (petroleum), hydrotreated light, Kerosine - unspecified	64742-47-8		no classification available
Ca-dodecyl benzene sulfonat	26264-06-2		no classification available
2-Ethylhexanol	104-76-7		no classification available
2,4-Dichlorophenol	120-83-2		no classification available

8.2. Exposure controls

Personal protective equipment

- Respiratory protection : Suitable respiratory protection for higher concentrations or long-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic and alkaline compounds (e.g. EN 14387 Type ABEK).
- Hand protection : Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other
- Eye protection : Safety glasses with side-shields (frame goggles) (e.g. EN 166)
- Skin and body protection : Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).
- Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.
- Protective measures : The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

Physical state : liquid at 20 °C ,
Form : Emulsifiable concentrate (EC)
Colour : amber
Odour : characteristic

Melting point/range : no data available

Boiling point/boiling range : 298,2 °C
at 999 hPa

Flash point : 126 °C

Ignition temperature : 275 °C

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : 4,8E-04 Pa
at 25 °C
(2,4-D 2EHE)

Density : 1,099 g/cm³
at 20 °C

Water solubility : < 0,0001 g/l
(2,4-D 2EHE)

pH : no data available

Partition coefficient: n-
octanol/water : log POW = 5,78
at 25 °C
(2,4-D 2EHE)

Dissociation constant : no data available



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Viscosity, dynamic : 21,9 mPa.s
at 40 °C
Method: OECD 114

60,6 mPa.s
at 20 °C
Method: OECD 114

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Explosive properties : Not explosive

9.2. Other information

none

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

no data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

no data available

10.4. Conditions to avoid

no data available

10.5. Incompatible materials to avoid

no data available

10.6. Hazardous decomposition products

no data available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects



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Acute oral toxicity	: LD50 rat Dose: 3.129 mg/kg
Acute dermal toxicity	: LD50 rat Dose: > 2.000 mg/kg
Acute inhalation toxicity	: LC50 rat Exposure time: 4 h Dose: > 5,63 mg/l
Skin irritation	: rabbit Classification: Irritating to skin.
Eye irritation	: rabbit Classification: No eye irritation
Sensitisation	: Local Lymph Node Assay mouse Classification: May cause sensitization by skin contact.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to earthworms	: LC50 Eisenia fetida (earthworms) Dose: 803 mg/kg Testing period: 14 d
Toxicity to bees	: LD50 (oral) Apis mellifera (bees) Dose (μ g/Species): 200
	: LD50 (contact) Apis mellifera (bees) Dose (μ g/Species): > 200
Toxicity to fish	: LC50 Oncorhynchus mykiss (rainbow trout) Dose: > 47,1 mg/l Testing period: 96 h Test substance: (2,4-D 2EHE)
	NOEC Pimephales promelas (fathead minnow)



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Dose: 0,12 mg/l
Test substance: (2,4-D 2EHE)

Toxicity to aquatic invertebrates : EC50 Daphnia magna (Water flea)
Dose: > 55,3 mg/l
Testing period: 48 h
Test substance: (2,4-D 2EHE)

NOEC Daphnia magna (Water flea)
Dose: 1,35 mg/l
Test substance: (2,4-D 2EHE)

Toxicity to algae : ErC50 Myriophyllum spicatum (spiked watermilfoil)
Dose: 0,247 mg/l
Exposure time: 14 d

NOEC Myriophyllum spicatum (spiked watermilfoil)
Dose: 0,03 mg/l
Exposure time: 14 d

12.2. Persistence and degradability

Biodegradability : Partially biodegradable.

12.3. Potential bioaccumulation

Bioaccumulation : no data available

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6. Other adverse effects

none

SECTION 13: DISPOSAL CONSIDERATIONS

According to European Directive 2000/532/EC as amended :

Waste Code : 02 01 08 (agrochemical waste containing dangerous substances)



13.1. Waste treatment methods

Product : In accordance with local and national regulations.

Contaminated packaging : Do not re-use empty containers.

Dispose empty and triple rinsed container within a local disposing system according to EC directive 94/62/EC

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN3082

14.2. Proper shipping name

UN3082 Environmentally hazardous substance, liquid, n.o.s.(2,4-D 2EHE)

14.3. Transport hazard class(es)

ADR/RID :
Class : 9

IMDG :
Class : 9

IATA-DGR :
Class : 9

14.4. Packaging group

ADR/RID : III

IMDG : III

IATA-DGR : III

14.5. Environmental hazards

IMDG
Marine Pollutant : MP



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14.6. Special precautions for user

none

SECTION 15: REGULATORY INFORMATION

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

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.

15.2. Chemical Safety Assessment

none

SECTION 16: OTHER INFORMATION

Print Date : 2016/04/08

The date format YYYY/MM/DD is used according to ISO 8601.
(Alterations are indicated in the left hand margin by: ||)

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Contact person

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The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.