

ESKANOL FU HARDENER

Revision date: 13.10.2023

Product code: 00359-1359

Page 1 of 10

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

ESKANOL FU HARDENER

Art.-No.

10763, 10764

REACH Registration Number: 01-2119958967-12-0000

CAS No: 88-95-9

EC No: 201-869-0

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

Use of the substance/mixture

Hardener

1.3. Details of the supplier of the safety data sheet

Company name: TIP TOP Oberflächenschutz Elbe GmbH

Street: Heuweg 4

Place: D-06886 Wittenberg

Telephone: +49(0)3491/635-50

Telefax: +49(0)3491/635-552

Responsible Department: Responsible for the safety data sheet: sds@gbk-ingelheim.de

1.4. Emergency telephone number:

INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)
Public Poisons Information Line: +353 (0) 1 809 2166 (8am-10pm 7 days a week)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute Tox. 4; H312

Skin Corr. 1B; H314

Resp. Sens. 1; H334

Skin Sens. 1; H317

STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

Phthaloyl dichloride

Signal word: Danger

Pictograms:



Hazard statements

| | |
|------|--|
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |

ESKANOL FU HARDENER

Revision date: 13.10.2023

Product code: 00359-1359

Page 2 of 10

Precautionary statements

| | |
|----------------|--|
| P260 | Do not breathe gas/vapour/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| 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. |

2.3. Other hazards

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.
This substance does not have endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients**3.1. Substances**

| | |
|-------------------|--------------|
| Sum formula: | C8 H4 Cl2 O2 |
| Molecular weight: | 203,01 |

Hazardous components

| CAS No | Chemical name | Quantity | | |
|---------|---|----------|-----------------------|--------|
| | EC No | Index No | REACH No | |
| | GHS Classification | | | |
| 88-95-9 | Phthaloyl dichloride | | | > 99 % |
| | 201-869-0 | | 01-2119958967-12-0000 | |
| | Acute Tox. 4, Skin Corr. 1B, Resp. Sens. 1, Skin Sens. 1, STOT SE 3; H312 H314 H334 H317 H335 | | | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|---------|--|----------------------|----------|
| | Specific Conc. Limits, M-factors and ATE | | |
| 88-95-9 | 201-869-0 | Phthaloyl dichloride | > 99 % |
| | dermal: ATE = 1100 mg/kg | | |

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove contaminated soaked clothing immediately.
Call a physician immediately.

After inhalation

Move to fresh air in case of accidental inhalation of vapours.
If patient is not breathing, apply artificial respiration.
Call a physician immediately.

After contact with skin

In case of contact with skin wash off immediately with plenty of water.
Seek medical treatment immediately.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

ESKANOL FU HARDENER

Revision date: 13.10.2023

Product code: 00359-1359

Page 3 of 10

Seek medical treatment by eye specialist.

After ingestion

- Do not induce vomiting.
- Rinse out mouth and give plenty of water to drink.
- Never give anything by mouth to an unconscious person.
- Summon a doctor immediately.
- Induce vomiting only upon the advice of a physician.

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

- Harmful in contact with skin.
- Causes severe skin burns and eye damage.
- May cause respiratory irritation.
- May cause an allergic skin reaction.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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

Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce:
carbon monoxide and carbon dioxide
Hydrochloric acid
Chlorine compounds

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

Additional information

- Cool containers at risk with water spray jet.
- Collect contaminated firefighting water separately, must not be discharged into the drains.
- Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

- Ensure adequate ventilation.
- Keep away noninvolved persons.

For non-emergency personnel

- Do not breathe vapours.
- Avoid contact with skin, eyes and clothing.

For emergency responders

- In case of vapour formation use respirator.
- Use personal protective clothing.

6.2. Environmental precautions

- Do not discharge into the drains/surface waters/groundwater.
- Clean contaminated surface thoroughly.

6.3. Methods and material for containment and cleaning up

ESKANOL FU HARDENER

Revision date: 13.10.2023

Product code: 00359-1359

Page 4 of 10

For containment

Prevent spread over a wide area (e.g. by containment or oil barriers).

For cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Shovel into suitable container for disposal.
Do not use metal containers.

Other information

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Shovel into suitable container for disposal.
Do not use metal containers.

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Informations for disposal look up chapter 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Care for thoroughly room ventilation, if necessary suck off at workplace.
Keep container tightly closed.
Handle and open container with care.

Advice on protection against fire and explosion

No special protective measures against fire required.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry, cool and well-ventilated place.
Protect from atmospheric moisture and water.
Protect against direct sun radiation.
Do not use metal containers.
Recommended storage temperature: > 10°C

Hints on joint storage

Incompatible with:
Bases
Oxidizing agents
Alcohols

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Hardener

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

This product does not contain any substances for which a Workplace Exposure Limit has been set in concentrations above the limits.

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

ESKANOL FU HARDENER

Revision date: 13.10.2023

Product code: 00359-1359

Page 5 of 10

Protective and hygiene measures

- Do not inhale gases/vapours/aerosols.
- Wash hands before breaks and immediately after handling the product.
- When using do not eat, drink or smoke.
- Avoid contact with skin, eyes and clothing.
- Remove and wash contaminated clothes before re-use.

Eye/face protection

- Tightly fitting goggles (EN 166).
- Eye wash bottle with pure water (EN 15154).

Hand protection

- Protective gloves resistant to chemicals made off butyl, Minimum coat thickness 0,7 mm, Permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Butoject 898> made by www.kcl.de.
- Protective gloves resistant to chemicals made off viton, Minimum coat thickness 0,7 mm, Permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Vitoject 890> made by www.kcl.de.
- This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.
- Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.
- Pls. find examples in the protective gloves database under: <http://bestglove.com/site/chemrest/>

Skin protection

- Acid-resistant protective clothing, rubber boots

Respiratory protection

- In case of insufficient ventilation wear suitable respiratory equipment (gas filter type E) (EN 14387).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------|------------|
| Physical state: | Liquid |
| Colour: | Colourless |
| Odour: | Pungent |

pH-Value: n. d.

Changes in the physical state

Melting point/freezing point: approx. 16 °C

Boiling point or initial boiling point and boiling range: approx. 281 °C

Sublimation point: n.a.

Softening point: n. d.

Flash point: 113 °C Closed cup

Sustaining combustion: Sustaining combustion

Flammability

Solid/liquid: n.a.

Explosive properties

The product is not explosive.

Lower explosion limits: n. d.

Upper explosion limits: n. d.

Auto-ignition temperature: n. d.

Self-ignition temperature

Solid: n.a.

Test method

ESKANOL FU HARDENER

Revision date: 13.10.2023

Product code: 00359-1359

Page 6 of 10

| | |
|--|------------------------|
| Gas: | n.a. |
| Decomposition temperature: | n. d. |
| Oxidizing properties | |
| Not oxidising. | |
| Vapour pressure: (at 47 °C) | 39,997 hPa |
| Density (at 20 °C): | 1,41 g/cm ³ |
| Bulk density: | n.a. |
| Water solubility: | Reacts with water |
| Solubility in other solvents | |
| n. d. | |
| Partition coefficient n-octanol/water: | Log Pow: 0,88 |
| Viscosity / dynamic: (at 20 °C) | n. d. |
| Viscosity / kinematic: | n. d. |
| Flow time: (at 23 °C) | n. d. |
| Relative vapour density: | n. d. |
| Evaporation rate: | n. d. |
| Solvent separation test: | 0 % |
| Solvent content: | 0 % |

9.2. Other information

Refraction index: 1,5684 (20°C)

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactions with oxidising agents.
Reactions with alcohols.
Reactions with alkalies.
Reacts violently with water.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Oxidizing agents
Bases.
Alcohols

10.6. Hazardous decomposition products

No hazardous decomposition products known.
Fire may produce:
Carbon monoxide and carbon dioxide
Hydrochloric acid
Phosgene

ESKANOL FU HARDENER

Revision date: 13.10.2023

Product code: 00359-1359

Page 7 of 10

SECTION 11: Toxicological information

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

Acute toxicity

Harmful in contact with skin.
No toxicological data available.

Irritation and corrosivity

Causes severe skin burns and eye damage.

Sensitising effects

May cause an allergic skin reaction. (Phthaloyl dichloride)
May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Phthaloyl dichloride)

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause respiratory irritation. (Phthaloyl dichloride)

STOT-repeated exposure

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

Aspiration hazard

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

Additional information on tests

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information

Ingestion can cause gastrointestinal irritation, headache, nausea, vomiting, vertigo, intoxication, unconsciousness and death.
Inhalation of high vapour concentration may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecological data are not available.

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

Severe hazard to waters.

Further information

Do not flush into surface water or sanitary sewer system.

ESKANOL FU HARDENER

Revision date: 13.10.2023

Product code: 00359-1359

Page 8 of 10

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Where possible recycling is preferred to disposal.
Can be incinerated, when in compliance with local regulations.

List of Wastes Code - residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3265
14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Phthaloyl dichloride)
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8



Classification code: C3
Limited quantity: 1 L / 30 kg
Excepted quantity: E2
Transport category: 2
Hazard No: 80
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: UN 3265
14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Phthaloyl dichloride)
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8



Classification code: C3
Limited quantity: 1 L / 30 kg
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 3265

ESKANOL FU HARDENER

Revision date: 13.10.2023

Product code: 00359-1359

Page 9 of 10

14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Phthaloyl dichloride)

14.3. Transport hazard class(es): 8

14.4. Packing group: II

Hazard label: 8



Marine pollutant: No

Limited quantity: 1 L / 30 kg

Excepted quantity: E2

EmS: F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3265

14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Phthaloyl dichloride)

14.3. Transport hazard class(es): 8

14.4. Packing group: II

Hazard label: 8



Limited quantity Passenger: 0.5 L

Passenger LQ: Y840

Excepted quantity: E2

IATA-packing instructions - Passenger: 851

IATA-max. quantity - Passenger: 1 L

IATA-packing instructions - Cargo: 855

IATA-max. quantity - Cargo: 30 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

14.7. Maritime transport in bulk according to IMO instruments

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

2004/42/EC (VOC): 0 %

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

ESKANOL FU HARDENER

Revision date: 13.10.2023

Product code: 00359-1359

Page 10 of 10

Water hazard class (D): 2 - obviously hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
IMDG = International Maritime Code for Dangerous Goods
IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
MARPOL = International Convention for the Prevention of Pollution from Ships
IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals
REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
CAS = Chemical Abstract Service
EN = European norm
ISO = International Organization for Standardization
DIN = Deutsche Industrie Norm
PBT = Persistent Bioaccumulative and Toxic
vPvB = Very Persistent and very Bio-accumulative
LD = Lethal dose
LC = Lethal concentration
EC = Effect concentration
IC = Median immobilisation concentration or median inhibitory concentration

Relevant H and EUH statements (number and full text)

| | |
|------|--|
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.