

Rudolf Hensel GmbH
21039 Börnsen

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

1.1 Product identifier

HENSOGRUND 2K EP Härter

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

1.2.1 Relevant uses

Basic coating

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company Rudolf Hensel GmbH
Lauenburger Landstr. 11
21039 Börnsen / GERMANY
Phone +49 (0)40-72 10 62 10
Fax +49 (0)40-72 10 62 52
Homepage www.rudolf-hensel.de
E-mail info@rudolf-hensel.de

Address enquiries to

Technical information info@rudolf-hensel.de

Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

Company +49 (0)40-72 10 62 10 (7:00 - 17:00) 0172 4115390 (17:00 - 07:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

Flam. Liq. 3: H226 Flammable liquid and vapour.
Acute Tox. 4: H312+H332 Harmful in contact with skin or if inhaled.
Skin Irrit. 2: H315 Causes skin irritation.
Eye Dam. 1: H318 Causes serious eye damage.
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure.
STOT SE 3: H335 May cause respiratory irritation.
Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

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2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

Hazard pictograms	   
Signal word	DANGER
Contains:	Butan-1-ol Xylene, mixture of isomers Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine
Hazard statements	H226 Flammable liquid and vapour. H312+H332 Harmful in contact with skin or if inhaled. H315 Causes skin irritation. H318 Causes serious eye damage. H373 May cause damage to organs through prolonged or repeated exposure. H335 May cause respiratory irritation. H412 Harmful to aquatic life with long lasting effects.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 Do not breathe vapours / spray. P271 Use only outdoors or in a well-ventilated area. 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. 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. 33,4 % of the mixture consists of ingredient(s) of unknown toxicity. Contains 33,4 % of components with unknown hazards to the aquatic environment.
Special labelling	Contains: Amines, polyethylenepoly-, triethylenetetramine fraction. EUH208 May produce an allergic reaction.
2004/42/CE	< 500g/l II A j SB Two-pack reactive performance coatings (max. 500 g/l)

2.3 Other hazards

Human health dangers	If swallowed or in the event of vomiting, risk of product entering the lungs.
Environmental hazards	Does not contain any PBT or vPvB substances.
Other hazards	Contains no ingredients with endocrine-disrupting properties. Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

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3.2 Mixtures

The product is a mixture.

Range [%]	Substance
35 - <50	Xylene, mixture of isomers CAS: 1330-20-7, EINECS/ELINCS: 215-535-7, EU-INDEX: 601-022-00-9, Reg-No.: 01-2119488216-32-XXXX GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H312 H332 - Skin Irrit. 2: H315 - STOT RE 2: H373 - Asp. Tox. 1: H304 - Eye Irrit. 2: H319 - STOT SE 3: H335 - Aquatic Chronic 3: H412
20 - <30	Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine CAS: 68082-29-1, EINECS/ELINCS: 500-191-5 GHS/CLP: Eye Dam. 1: H318
1 - <10	2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2, EINECS/ELINCS: 202-013-9, EU-INDEX: 603-069-00-0, Reg-No.: 01-2119560597-27-XXXX GHS/CLP: Acute Tox. 4: H302 - Skin Corr. 1C: H314 - Eye Dam. 1: H318
1 - <10	Butan-1-ol CAS: 71-36-3, EINECS/ELINCS: 200-751-6, EU-INDEX: 603-004-00-6, Reg-No.: 01-2119484630-38-XXXX GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H302 - Eye Dam. 1: H318 - STOT SE 3: H336 - Skin Irrit. 2: H315 - STOT SE 3: H335
0.1 - <1	Amines, polyethylenepoly-, triethylenetetramine fraction CAS: 90640-67-8, EINECS/ELINCS: 292-588-2, Reg-No.: 01-2119487919-13-XXXX GHS/CLP: Acute Tox. 4: H302 H312 - Skin Corr. 1B: H314 - Skin Sens. 1: H317 - Eye Dam. 1: H318 - Aquatic Chronic 3: H412

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
 For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Take off contaminated clothing and wash before reuse.

Inhalation

Remove the victim into fresh air and keep him calm.
 In the event of symptoms seek medical treatment.

Skin contact

In case of contact with skin wash off immediately with soap and water.
 Consult a doctor if skin irritation persists.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Seek medical advice immediately.

Ingestion

Consult a doctor immediately.
 Do not induce vomiting.
 Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects
 Vertigo
 Dizziness
 Allergic reactions

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Foam.
 Dry powder.
 Water spray jet.
 Carbon dioxide.

Extinguishing media that must not be used

Full water jet.

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5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NO_x).

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.
Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.
Ensure adequate ventilation.
Use breathing apparatus if exposed to vapours/dust/aerosol.
Use personal protective equipment (protective gloves, safety glasses, protective clothing).

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide good room ventilation even at ground level (vapours are heavier than air).
Provide suitable vacuuming at the processing area.
Use solvent-resistant equipment.
Vapours can form an explosive mixture with air.
Take precautionary measures against static discharges.
Keep away from all sources of ignition - Refrain from smoking.
Use explosion-proofed equipment/fittings and non-sparking tools.
Do not eat, drink, smoke or take drugs at work.
Take off contaminated clothing and wash before reuse.
Use barrier skin cream.
After worktime and before work breaks the affected skin areas must be thoroughly cleaned.

7.2 Conditions for safe storage, including any incompatibilities

Provide solvent-resistant and impermeable floor.
Keep only in original container.
Prevent penetration into the ground.
Do not store together with oxidizing agents.
Keep container tightly closed.
Keep container in a well-ventilated place.
Protect from heat/overheating and from sun.
Keep in a cool place.

7.3 Specific end use(s)

See product use, SECTION 1.2

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SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
Xylene, mixture of isomers
CAS: 1330-20-7, EINECS/ELINCS: 215-535-7, EU-INDEX: 601-022-00-9
Long-term exposure: 50 ppm, 220 mg/m ³ , Sk, BMGV
Short-term exposure (15-minute): 100 ppm, 441 mg/m ³
Butan-1-ol
CAS: 71-36-3, EINECS/ELINCS: 200-751-6, EU-INDEX: 603-004-00-6, Reg-No.: 01-2119484630-38-XXXX
Long-term exposure: 50 ppm, Sk
Short-term exposure (15-minute): 50 ppm, 154 mg/m ³

Ingredients with occupational exposure limits to be monitored (EU)

Substance / EC LIMIT VALUES
Xylene, mixture of isomers
CAS: 1330-20-7, EINECS/ELINCS: 215-535-7, EU-INDEX: 601-022-00-9
Eight hours: 50 ppm, 221 mg/m ³ , H
Short-term (15-minute): 100 ppm, 442 mg/m ³

DNEL

Substance
2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2
Industrial, inhalative, Long-term - systemic effects, 0.53 mg/m ³
Industrial, inhalative, Acute - systemic effects, 2.1 mg/m ³
Industrial, dermal, Long-term - systemic effects, 0.15 mg/kg bw/day
Industrial, dermal, Acute - systemic effects, 0.6 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 0.13 mg/m ³
general population, oral, Long-term - systemic effects, 0.075 mg/kg bw/day
general population, dermal, Acute - systemic effects, 0.075 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 0.075 mg/kg bw/day
general population, inhalative, Acute - systemic effects, 0.13 mg/m ³
Xylene, mixture of isomers, CAS: 1330-20-7
Industrial, inhalative, Acute - systemic effects, 442 mg/m ³
Industrial, dermal, Long-term - systemic effects, 212 mg/kg bw/day
Industrial, inhalative, Long-term - local effects, 221 mg/m ³
Industrial, inhalative, Long-term - systemic effects, 221 mg/m ³
general population, oral, Long-term - systemic effects, 12.5 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 65.3 mg/m ³
general population, inhalative, Acute - systemic effects, 260 mg/m ³
general population, inhalative, Long-term - local effects, 65.3 mg/m ³
general population, inhalative, Acute - local effects, 260 mg/m ³
general population, dermal, Long-term - systemic effects, 125 mg/kg bw/day
Butan-1-ol, CAS: 71-36-3
Industrial, inhalative (vapor), Long-term - local effects, 310 mg/m ³
general population, inhalative (vapor), Long-term - local effects, 155 mg/m ³



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general population, oral, Long-term - systemic effects, 1.562 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 3.125 mg/kg bw/day
general population, inhalative (vapor), Long-term - systemic effects, 55.357 mg/m ³
Amines, polyethylenepoly-, triethylenetetramine fraction, CAS: 90640-67-8
Industrial, inhalative, Long-term - systemic effects, 0.54 mg/m ³
general population, oral, Long-term - systemic effects, 0.14 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 0.096 mg/m ³

PNEC

Substance
2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2
soil, 0.025 mg/kg soil dw
sediment (seawater), 0.026 mg/kg sediment dw
sediment (freshwater), 0.262 mg/kg sediment dw
sewage treatment plants (STP), 0.2 mg/L
seawater, 0.005 mg/L
freshwater, 0.046 mg/L
Xylene, mixture of isomers, CAS: 1330-20-7
freshwater, 0.327 mg/l
seawater, 0.327 mg/l
soil, 2.31 mg/kg dw
sediment (freshwater), 12.46 mg/kg
sediment (seawater), 12.46 mg/kg
sewage treatment plants (STP), 6.58 mg/l
Butan-1-ol, CAS: 71-36-3
seawater, 0.008 mg/l
soil, 0.017 mg/kg
freshwater, 0.082 mg/l
sediment (seawater), 0.032 mg/kg
sediment (freshwater), 0.324 mg/kg
sewage treatment plants (STP), 2476 mg/l
Amines, polyethylenepoly-, triethylenetetramine fraction, CAS: 90640-67-8
seawater, 0.003 mg/L
soil, 1.25 mg/kg soil dw
sewage treatment plants (STP), 0.13 mg/L
sediment (freshwater), 8.572 mg/kg sediment dw
sediment (seawater), 0.857 mg/kg sediment dw
freshwater, 0.027 mg/L

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8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	Safety glasses. (EN 166:2001)
Hand protection	0.7 mm Viton, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Solvent-resistant protective clothing (EN 340)
Other	Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	Respiratory protection mask in the event of high concentrations. Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)
Thermal hazards	none
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Color	yellowish
Odor	characteristic
Odour threshold	not determined
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not determined
Flash point [°C]	25
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	1 Vol.%
Upper explosion limit	11.3 Vol.%
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	ca. 0.8 (20°C)
Density [g/cm³]	0.92 - 0.98 (20 °C / 68,0 °F)
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	insoluble
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	not determined
Kinematic viscosity	600 - 2400 mPas (20 °C) 55 - 65 sec. 6mm
Relative vapour density	not determined
Evaporation speed	not determined
Melting point [°C]	not determined
Auto-ignition temperature	> 300
Decomposition temperature [°C]	not determined
Particle characteristics	not applicable

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9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

The product is stable under standard conditions.

10.3 Possibility of hazardous reactions

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.
Reactions with strong oxidizing agents, strong acids and alkalis.

10.4 Conditions to avoid

See SECTION 7

10.5 Incompatible materials

Oxidizing agent
Acids
Alkalies

10.6 Hazardous decomposition products

No hazardous decomposition products known.

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SECTION 11: Toxicological information

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

Acute oral toxicity

Product
ATE-mix, oral, > 2000 mg/kg
Substance
2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2
LD50, oral, Rat, 2169 mg/kg OECD TG 401
Xylene, mixture of isomers, CAS: 1330-20-7
LD50, oral, Rat, 4300 mg/kg
Butan-1-ol, CAS: 71-36-3
LD50, oral, Rat (female), 2292 mg/kg bw, OECD 401
Amines, polyethylenepoly-, triethylenetetramine fraction, CAS: 90640-67-8
LD50, oral, Rat, 1716 mg/kg bw

Acute dermal toxicity

Product
ATE-mix, dermal, 1500 - <2000 mg/kg
Substance
Xylene, mixture of isomers, CAS: 1330-20-7
LD50, dermal, Rabbit, > 5000 mg/kg
Butan-1-ol, CAS: 71-36-3
LD50, dermal, Rabbit, 3400 mg/kg
Amines, polyethylenepoly-, triethylenetetramine fraction, CAS: 90640-67-8
LD50, dermal, Rabbit, 1465 mg/kg bw

Acute inhalational toxicity

Product
ATE-mix, inhalation (vapour), 15 - <20 mg/l 4h
Substance
Xylene, mixture of isomers, CAS: 1330-20-7
LC50, inhalative, Rat, 27 - 47 mg/l (4 h)
Butan-1-ol, CAS: 71-36-3
LC50, inhalative, Rat, > 17.76 mg/l (4 h)

Serious eye damage/irritation

Risk of serious damage to eyes.
 Based on the available information, the classification criteria are fulfilled.
 Toxicological data of complete product are not available.
 Calculation method

Substance
2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2
Eye, corrosive
Xylene, mixture of isomers, CAS: 1330-20-7
Eye, Rabbit, In vivo study, irritant
Butan-1-ol, CAS: 71-36-3

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Eye, Rabbit, OECD 405, corrosive
Amines, polyethylenepoly-, triethylenetetramine fraction, CAS: 90640-67-8
Eye, Rabbit, OECD 405, corrosive

Skin corrosion/irritation

Irritant
 Based on the available information, the classification criteria are fulfilled.
 Toxicological data of complete product are not available.
 Calculation method

Substance
2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2
dermal, corrosive
Xylene, mixture of isomers, CAS: 1330-20-7
dermal, Rabbit, In vivo study, irritant
Butan-1-ol, CAS: 71-36-3
dermal, Rabbit, irritant
Amines, polyethylenepoly-, triethylenetetramine fraction, CAS: 90640-67-8
dermal, Rabbit, OECD 404, corrosive

Respiratory or skin sensitisation

Based on the available information, the classification criteria are not fulfilled.
 Toxicological data of complete product are not available.
 May produce an allergic reaction.

Substance
2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2
dermal, non-sensitizing
Xylene, mixture of isomers, CAS: 1330-20-7
mouse, OECD 429, non-sensitizing
Butan-1-ol, CAS: 71-36-3
dermal, Mouse (female), OECD 429, non-sensitizing
Amines, polyethylenepoly-, triethylenetetramine fraction, CAS: 90640-67-8
dermal, Guinea pig, OECD 406, sensitising

Specific target organ toxicity — single exposure

May cause respiratory irritation.
 Based on the available information, the classification criteria are fulfilled.
 Toxicological data of complete product are not available.
 Calculation method

Specific target organ toxicity — repeated exposure

May cause damage to organs through prolonged or repeated exposure.
 Based on the available information, the classification criteria are fulfilled.
 Toxicological data of complete product are not available.
 Calculation method

Substance
2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2
NOAEL, oral, Rat, 15 mg/kg bw/day (subchronic), The effects observed are not sufficient for classification.
Xylene, mixture of isomers, CAS: 1330-20-7
NOAEL, oral, Rat, 250 mg/kg bw/day
NOAEC, inhalative, Rat, 3515 mg/m ³
Butan-1-ol, CAS: 71-36-3
NOAEL, oral, Rat, 125 mg/kg bw/day, no adverse effect observed
NOAEC, inhalative, Rat, 1500 mg/m ³ , no adverse effect observed
Amines, polyethylenepoly-, triethylenetetramine fraction, CAS: 90640-67-8
LOAEL, oral, Rat, 33 mg/kg bw/day (subchronic), The effects observed are not sufficient for classification.

Mutagenicity

Does not contain a relevant substance that meets the classification criteria.

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Based on the available information, the classification criteria are not fulfilled.
 Toxicological data of complete product are not available.

Substance
2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2
in vitro, no adverse effect observed
Xylene, mixture of isomers, CAS: 1330-20-7
subkutane, mouse, OECD 478, negativ
Butan-1-ol, CAS: 71-36-3
in vivo, OECD 474, negativ
in vitro, OECD 476, negativ
Amines, polyethylenepoly-, triethylenetetramine fraction, CAS: 90640-67-8
intraperitoneal, mouse, OECD 474, negativ
in vitro, OECD 471, positive

Reproduction toxicity

Does not contain a relevant substance that meets the classification criteria.
 Based on the available information, the classification criteria are not fulfilled.
 Toxicological data of complete product are not available.

Substance
2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2
NOAEL, Rat, 150 mg/kg bw/day (subchronic), no adverse effect observed
Xylene, mixture of isomers, CAS: 1330-20-7
NOAEC, inhalative, Rat, 2171 mg/m ³ , In vivo study, negativ
Butan-1-ol, CAS: 71-36-3
NOAEL, oral, Rat, 1454 mg/kg bw/day, OECD 414, adverse effect observed
NOAEL, oral, Rat, 500 mg/kg bw/day, no adverse effect observed
NOAEC, inhalative, Rat, 6189 mg/m ³ , no adverse effect observed
Amines, polyethylenepoly-, triethylenetetramine fraction, CAS: 90640-67-8
NOAEL, dermal, Rabbit, 125 mg/kg bw/day (subacute), no adverse effect observed, Effect on developmental toxicity,
NOAEL, oral, Rat, 750 mg/kg bw/day (subacute), no adverse effect observed, Effect on developmental toxicity,

Carcinogenicity

Does not contain a relevant substance that meets the classification criteria.
 Based on the available information, the classification criteria are not fulfilled.
 Toxicological data of complete product are not available.

Substance
Xylene, mixture of isomers, CAS: 1330-20-7
NOAEL, oral, Rat, 500 mg/kg bw/day
Amines, polyethylenepoly-, triethylenetetramine fraction, CAS: 90640-67-8
LOAEL, dermal, mouse, 50 mg/kg bw/day (chronic), no adverse effect observed

Aspiration hazard

Based on the available information, the classification criteria are not fulfilled.

General remarks

none

11.2 Information on other hazards

Endocrine disrupting properties

Does not contain a relevant substance that meets the classification criteria.

Other information

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SECTION 12: Ecological information

12.1 Toxicity

Substance
2,4,6-tris(dimethylaminomethyl)phenol, CAS: 90-72-2
LC50, (96h), Cyprinus carpio, 175 mg/l
EC50, (72h), Desmodesmus subspicatus, 84 mg/l OECD TG 201
NOEC, (72h), Desmodesmus subspicatus, 6.25 mg/l OECD TG 201
Xylene, mixture of isomers, CAS: 1330-20-7
LC50, (96h), Pimephales promelas, 13.4 mg/l
LC50, (48h), Leuciscus idus, 86 mg/l
LC50, (96h), Oncorhynchus mykiss, 14 mg/l
EC50, (24h), Daphnia magna, 165 mg/l (OECD 202)
EC50, (72h), Selenastrum capricornutum, 2.6 - 7.6 mg/l
EC50, (48h), Daphnia magna, 1.0 - 4.7 mg/l
EC50, Bacteria, 1 - 10 mg/l
Butan-1-ol, CAS: 71-36-3
LC50, (96h), Scenedesmus subspicatus, > 500 mg/l
LC50, (96h), Pimephales promelas, 1376 mg/l
LC50, (96h), Leuciscus idus, 1200 mg/l
EC50, (72h), Desmodesmus subspicatus, > 500 mg/l
EC50, (48h), Daphnia magna, 1328 mg/l
EC50, Pseudomonas putida, 4400 mg/l (17 h)
Amines, polyethylenepoly-, triethylenetetramine fraction, CAS: 90640-67-8
LC50, (96h), fish, 330 mg/L
EC50, (48h), Invertebrates, 31.1 mg/L
EC50, (72h), Algae, 20 mg/L

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	not determined

12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Does not contain a relevant substance that meets the classification criteria.

12.7 Other adverse effects

None known.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.
Disposal in an incineration plant in accordance with the regulations of the local authorities.

Waste no. (recommended) 080111*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended) 150110* packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID 1263

Inland navigation (ADN) 1263

Marine transport in accordance with IMDG 1263

Air transport in accordance with IATA 1263

14.2 UN proper shipping name

Transport by land according to ADR/RID Paint related material (No dangerous goods, according ADR 2.2.3.1.5 to max. 450 l)

- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 3 (D/E)

Inland navigation (ADN) Paint related material (No dangerous goods, according ADR 2.2.3.1.5 to max. 450 l)

Marine transport in accordance with IMDG Paint related material, No dangerous goods, according IMDG 2.3.2.5 to max. 30 l (see 5.4.1.5.10) - "transport in compliance with 2.3.2.5 of the IMDG Code"

- EMS F-E, S-E

- Label



Air transport in accordance with IATA Paint related material

- Label



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14.3 Transport hazard class(es)

Transport by land according to ADR/RID 3

Inland navigation (ADN) 3

Marine transport in accordance with IMDG 3

Air transport in accordance with IATA 3

14.4 Packing group

Transport by land according to ADR/RID III

Inland navigation (ADN) III

Marine transport in accordance with IMDG III

Air transport in accordance with IATA III

14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

not determined

SECTION 15: Regulatory information

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

EEC-REGULATIONS 2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS ADR (2021); IMDG-Code (2021, 40. Amdt.); IATA-DGR (2022)

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.

- **Observe employment restrictions for people** Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.

- **VOC (2010/75/CE)** < 500g/l

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15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H317 May cause an allergic skin reaction.
H302+H312 Harmful if swallowed or in contact with skin.

H412 Harmful to aquatic life with long lasting effects.
H319 Causes serious eye irritation.
H304 May be fatal if swallowed and enters airways.
H373 May cause damage to organs through prolonged or repeated exposure.
H312+H332 Harmful in contact with skin or if inhaled.
H335 May cause respiratory irritation.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H226 Flammable liquid and vapour.
H318 Causes serious eye damage.
H314 Causes severe skin burns and eye damage.
H302 Harmful if swallowed.

16.2 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
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform Chemical Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV@TWA = Threshold limit value – time-weighted average
TLV@STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

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16.3 Other information

Classification procedure

Flam. Liq. 3: H226 Flammable liquid and vapour. (On basis of test data)
Acute Tox. 4: H312+H332 Harmful in contact with skin or if inhaled. (Calculation method)
Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
Eye Dam. 1: H318 Causes serious eye damage. (Calculation method)
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (Calculation method)
STOT SE 3: H335 May cause respiratory irritation. (Calculation method)
Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Modified position

SECTION 3 been added: Amines, polyethylenepoly-, triethylenetetramine fraction
SECTION 3 deleted: Triethylenetetramine
SECTION 2 been added: Amines, polyethylenepoly-, triethylenetetramine fraction
SECTION 2 been added: P273 Avoid release to the environment.
SECTION 2 been added: H412 Harmful to aquatic life with long lasting effects.
SECTION 2 been added: Aquatic Chronic 3
SECTION 2 been added: The product is required to be labelled in accordance with regulation CLP.
SECTION 2 been added: Contains no ingredients with endocrine-disrupting properties.
SECTION 9 been added: not applicable
SECTION 11 been added: May produce an allergic reaction.
SECTION 11 been added: Does not contain a relevant substance that meets the classification criteria.
SECTION 12 been added: Does not contain a relevant substance that meets the classification criteria.
SECTION 16 been added: Calculation method

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