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

1.1 Product identifier

HENSOTHERM® 370 KS

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

1.2.1 Relevant uses

Fire retardant 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

Flam. Liq. 3: H226 Flammable liquid and vapour.

Skin Irrit. 2: H315 Causes skin irritation. Eye Irrit. 2: H319 Causes serious eye irritation.

STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure.

STOT SE 3: H335 May cause respiratory irritation.

2.2 Label elements

Hazard pictograms





Signal word WARNING

Contains: Xylene, mixture of isomers

Hazard statements H226 Flammable liquid and vapour.

H315 Causes skin irritation. H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H335 May cause respiratory irritation.

Precautionary statements P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P280 Wear protective gloves / protective clothing / eye protection / face protection.

P260 Do not breathe vapours / spray.

P271 Use only outdoors or in a well-ventilated area. P312 Call a POISON CENTER / doctor if you feel unwell.

P501 Dispose of contents/container in accordance with local/national regulation.

Special labelling Contains: Fatty acids, C14-18 and C16-18-unsatd., maleated. EUH208 May produce an

allergic reaction.

2004/42/CE < 500 g/l II A i SB One-pack performance coatings (max. 500 g/l)

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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 Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

Range [%]	Substance
15 - 25	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
5 - <10	Ethylbenzene
	CAS: 100-41-4, EINECS/ELINCS: 202-849-4, EU-INDEX: 601-023-00-4
	GHS/CLP: Flam. Liq. 2: H225 - Acute Tox. 4: H332 - Asp. Tox. 1: H304 - STOT RE 2: H373
<1	Fatty acids, C14-18 and C16-18-unsatd., maleated
	CAS: 85711-46-2, EINECS/ELINCS: 288-306-2, Reg-No.: 01-2119976378-XXXX
	GHS/CLP: Skin Irrit. 2: H315 - Eye Irrit. 2: H319 - Skin Sens. 1B: H317

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 When in contact with the skin, clean 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.

If eye irritation persists: Get medical advice/attention.

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

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 Water spray jet.

Carbon dioxide. Foam. Dry powder.

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 (NOx). Phosphorus oxides (POx).

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.

Collect contaminated firefighting water separately, must not be discharged into the drains.

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.

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 mechanically.

Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder,

diatomaceous earth).

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 suitable vacuuming at the processing machines and in the processing area. Provide good room ventilation even at ground level (vapours are heavier than air).

Vapours can form an explosive mixture with air.

Take precautionary measures against static discharges.

Keep away from all sources of ignition - Refrain from smoking.

Ignitable mixtures can be formed in the empty container.

Use explosion-proofed equipment/fittings and non-sparkling tools.

Do not eat, drink, smoke or take drugs at work.

Take off contaminated clothing and wash before reuse.

After worktime and before work breaks the affected skin areas must be thoroughly cleaned.

Use barrier skin cream.

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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.

Provide floor with bunding.

Do not store together with oxidizing agents.

Do not store together with food and animal food/diet.

Keep container tightly closed.

Keep container in a well-ventilated place.

Protect from heat/overheating.

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

Ethylbenzene

CAS: 100-41-4, EINECS/ELINCS: 202-849-4, EU-INDEX: 601-023-00-4

Long-term exposure: 100 ppm, 441 mg/m³, Sk

Short-term exposure (15-minute): 125 ppm, 552 mg/m³

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

Long-term exposure: 50 ppm, 220 mg/m³, Sk, BMGV

Short-term exposure (15-minute): 100 ppm, 441 mg/m³

Titanium dioxide

CAS: 13463-67-7, EINECS/ELINCS: 236-675-5, Reg-No.: 01-2119489379-17-XXXX

Long-term exposure: 4 mg/m³, respirable; total inhalable: TWA=10 mg/m³

Pentaerythritol

CAS: 115-77-5, EINECS/ELINCS: 204-104-9, Reg-No.: 01-2119473985-20-XXXX

Long-term exposure: 10 mg/m³, inhalable dust, respirable dust: TWA=4 mg/m³

Short-term exposure (15-minute): 20 mg/m³

Ingredients with occupational exposure limits to be monitored (EU)

Substance / EC LIMIT VALUES

Ethylbenzene

CAS: 100-41-4, EINECS/ELINCS: 202-849-4, EU-INDEX: 601-023-00-4

Eight hours: 100 ppm, 442 mg/m3, H

Short-term (15-minute): 200 ppm, 884 mg/m³

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

Eight hours: 50 ppm, 221 mg/m³, H

Short-term (15-minute): 100 ppm, 442 mg/m³

DNEL

Substance

Xylene, mixture of isomers, CAS: 1330-20-7

Industrial, dermal, Long-term - systemic effects: 212 mg/kg bw/day.

Industrial, inhalative (vapor), Long-term - local effects: 221 mg/m³.

Industrial, inhalative (vapor), Acute - local effects: 442 mg/m³.

Industrial, inhalative (vapor), Long-term - systemic effects: 221 mg/m³.

general population, oral, Long-term - systemic effects: 12,5 mg/kg bw/day.

general population, dermal, Long-term - systemic effects: 125 mg/kg bw/day.

general population, inhalative (vapor), Long-term - local effects: 65,3 mg/m³.

general population, inhalative (vapor), Acute - local effects: 260 mg/m³.

general population, inhalative (vapor), Long-term - systemic effects: 65,3 mg/m³.

Fatty acids, C14-18 and C16-18-unsatd., maleated, CAS: 85711-46-2

Industrial, dermal, Long-term - systemic effects: 3,33 mg/kg bw/day.

general population, oral, Long-term - systemic effects: 1,67 mg/kg bw/day.

general population, dermal, Long-term - systemic effects: 1,67 mg/kg bw/day.

PNEC



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Substance

Xylene, mixture of isomers, CAS: 1330-20-7

sediment (seaater), 12,46 mg/kg.

soil, 2,31 mg/kg dw.

sewage treatment plants (STP), 6,58 mg/l.

sediment (freshwater), 12,46 mg/kg.

freshwater, 0,327 mg/l seawater, 0,327 mg/l.

Fatty acids, C14-18 and C16-18-unsatd., maleated, CAS: 85711-46-2

sewage treatment plants (STP), 100 mg/L

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 0,7mm 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. 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

Delimitation and monitoring of the

environmental exposition

Protect the environment by applying appropriate control measures to prevent or limit

emissions.



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SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Form pasty Color white Odor characteristic **Odour threshold** not applicable pH-value not applicable pH-value [1%] not applicable Boiling point [°C] > 100

Flash point [°C] Flammability (solid, gas) [°C] not applicable Lower explosion limit ~ 1 Vol.% **Upper explosion limit** ~ 8 Vol.% **Oxidising properties** no

Vapour pressure/gas pressure [kPa] Density [g/ml] 1,25 - 1,35 Bulk density [kg/m³] not applicable Solubility in water virtually insoluble Partition coefficient [n-octanol/water] not determined

Viscosity 7000 - 13000 mPa.s (20 °C)

Relative vapour density determined

in air

not determined

26

Evaporation speed not determined Melting point [°C] not determined Autoignition temperature [°C] not self-igniting Decomposition temperature [°C] not determined

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. Uncleaned empty vessels may contain product gases which can form explosive mixtures with air. Reactions with oxidizing agents.

10.4 Conditions to avoid

Strong heating. See SECTION 7

10.5 Incompatible materials

Oxidizing agent



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10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product

ATE-mix, inhalativ (vapour), > 20 mg/l 4h.

ATE-mix, dermal, > 2000 mg/kg.

ATE-mix, oral, > 2000 mg/kg.

Ethylbenzene, CAS: 100-41-4

LD50, oral, Rat: 3500 mg/kg (IUCLID).

LD50, dermal, Rabbit: 15354 mg/kg (IUCLID).

LC50, inhalative, Rat: 17,2 mg/l/4h (IUCLID).

Xylene, mixture of isomers, CAS: 1330-20-7

LD50, dermal, Rabbit: 4300 mg/kg.

LD50, oral, Rat: 4300 mg/kg.

LC50, inhalative, Rat: 27 - 47 mg/l (4 h).

Serious eye damage/irritation Irritant

Based on the available information, the classification criteria are fulfilled.

Toxicological data of complete product are not available.

Calculation method

Skin corrosion/irritation Irritan

Based on the available information, the classification criteria are fulfilled.

Toxicological data of complete product are not available.

Calculation method

Respiratory or skin sensitisationBased on the available information, the classification criteria are not fulfilled.

Toxicological data of complete product are not available.

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

Mutagenicity 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.

Reproduction toxicityDoes 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.

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.

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

General remarks

none



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SECTION 12: Ecological information

12.1 Toxicity

Substance	
Ethylbenzene, CAS: 100-41-4	
LC50, (96h), Oncorhynchus mykiss: 4,2 mg/l (OECD 203).	
EC50, Bacteria: 9,68 mg/l/30 min. (Microtox Test).	
EC50, (48h), Daphnia magna: 2,9 mg/l (ECOTOX Database).	
IC50, (72h), Algae: 4,6 mg/l (IUCLID).	
Xylene, mixture of isomers, CAS: 1330-20-7	
LC50, (96h), Pimephales promelas: 13,4 mg/l.	
LC50, (96h), Oncorhynchus mykiss: 14 mg/l.	
LC50, (48h), Leuciscus idus: 86 mg/l.	
EC50, (72h), Selenastrum capricornutum: 2,6 - 7,6 mg/l.	
EC50, (48h), Daphnia magna: 1,0 - 4,7 mg/l.	
EC50, (24h), Daphnia magna: 165 mg/l (OECD 202).	
EC50, Bacteria: 1 - 10 mg/l.	

12.2 Persistence and degradability

Behaviour in environment

not determined

compartments

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 Other adverse effects

None known.

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*

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SECTION 14: Transport information

14.1 UN 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 (No dangerous goods, according ADR 2.2.3.1.5 to max. 450 l)



- Label

- ADR 1.1.3.6 (8.6)

Transport category (tunnel restriction code) 3 (D/E)

Inland navigation (ADN)

- Label

Paint (No dangerous goods, according ADR 2.2.3.1.5 to max. 450 l)



Marine transport in accordance with

IMDG

Paint (No dangerous goods, according IMDG 2.3.2.5 to max. 30 I (see 5.4.1.5.10) - "transport in compliance with 2.3.2.5 of the IDMG Code")

- EMS - Label F-E, S-E

Air transport in accordance with IATA Paint

- Label



14.3 Transport hazard class(es)

Transport by land according to

ADR/RID

3

Inland navigation (ADN)

3

Marine transport in accordance with 3

IMDG

Air transport in accordance with IATA $\,3\,$



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14.4 Packing group

Transport by land according to

ADR/RID

Inland navigation (ADN)

Marine transport in accordance with

IMDG

Air transport in accordance with IATA III

14.5 Environmental hazards

Transport by land according to

ADR/RID

no

Ш

Inland navigation (ADN) no

Marine transport in accordance with no

IMDG

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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

not applicable

SECTION 15: Regulatory information

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

EEC-REGULATIONS 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008;

75/324/EEC (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONSDOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2018). **NATIONAL REGULATIONS (GB):**EH40/2005 Workplace exposure limits (Second edition, published December 2011).

- 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) < 500 g/l

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 03)

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H225 Highly flammable liquid and vapour. H335 May cause respiratory irritation. 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.

H315 Causes skin irritation.

H312+H332 Harmful in contact with skin or if inhaled.

H226 Flammable liquid and vapour.

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16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par

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

ELINCS = European List of Notified Chemical Substances

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

LC50 = Lethal concentration, 50% LD50 = Median lethal dose LC0 = lethal concentration, 0%

LOAEL = lowest-observed-adverse-effect level

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

16.3 Other information

Classification procedure

Flam. Liq. 3: H226 Flammable liquid and vapour. (On basis of test data)

Skin Irrit. 2: H315 Causes skin irritation. (Calculation method) Eye Irrit. 2: H319 Causes serious eye irritation. (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)

Modified position

none

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