

AUDAX-Keck GmbH
75365 Calw

Date printed 23.05.2019, Revision 30.01.2018

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

1.1 Product identifier

RENITHERM® PMS 1200 H

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 AUDAX-Keck GmbH
Weiherstr. 10
75365 Calw / GERMANY
Phone +49 (0)7051 1625-0
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Address enquiries to

Technical information

Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

Company +49 (0)7051 1625-0 Mo-Fr 8:00 - 16:00

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

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:

3.2 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 (NO_x).
Phosphorus oxides (PO_x).

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance with 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 with 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-sparking 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/m ³ , Sk
Short-term exposure (15-minute): 125 ppm, 552 mg/m ³
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/m ³ , Sk, BMGV
Short-term exposure (15-minute): 100 ppm, 441 mg/m ³
Titanium dioxide
CAS: 13463-67-7, EINECS/ELINCS: 236-675-5, Reg-No.: 01-2119489379-17-XXXX
Long-term exposure: 4 mg/m ³ , respirable; total inhalable: TWA=10 mg/m ³
Pentaerythritol
CAS: 115-77-5, EINECS/ELINCS: 204-104-9, Reg-No.: 01-2119473985-20-XXXX
Long-term exposure: 10 mg/m ³ , inhalable dust, respirable dust: TWA=4 mg/m ³
Short-term exposure (15-minute): 20 mg/m ³

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/m ³ , H
Short-term (15-minute): 200 ppm, 884 mg/m ³
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/m ³ , H
Short-term (15-minute): 100 ppm, 442 mg/m ³

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/m ³ .
Industrial, inhalative (vapor), Acute - local effects: 442 mg/m ³ .
Industrial, inhalative (vapor), Long-term - systemic effects: 221 mg/m ³ .
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/m ³ .
general population, inhalative (vapor), Acute - local effects: 260 mg/m ³ .
general population, inhalative (vapor), Long-term - systemic effects: 65,3 mg/m ³ .
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 (seawater), 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.

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	0,7mm 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 (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.

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SECTION 9: Physical and chemical properties

9.1 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]	26
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	ca. 1 Vol.%
Upper explosion limit	ca. 8 Vol.%
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	ca. 0,8
Density [g/ml]	1,25 - 1,35
Bulk density [kg/m ³]	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
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, inhalation (vapour), > 20 mg/l 4h.
ATE-mix, dermal, > 2000 mg/kg.
ATE-mix, oral, > 2000 mg/kg.
Substance
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	Irritant Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Calculation method
Respiratory or skin sensitisation	Based 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 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.
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 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 Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material c 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)

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

- Label



Marine transport in accordance with IMDG

Paint (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

- Label



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

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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 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 (2016/2037/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2019)

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 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
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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