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FIRE TECHNOLOGY

产品资料与销售咨询

PRODUCT DOCUMENTATION & SALES CONTACT

FLAMMADUR ® E 292-E 292 T-Ireland - Safety Data Sheet-en

澳迪斯防火科技（廊坊）有限公司

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以上为销售联系信息，不替代安全数据表中的应急联系电话。
原始技术内容及制造商、检测机构和证书签发信息见后续资料页。

Sales contact only; emergency contacts in safety data sheets remain applicable.
Original technical, manufacturer and certification details follow.

FLAMMADUR® E 292

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 16/04/2026 Revision date: 16/04/2026 Version: 1.00

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

1.1. Product identifier

Product form : Mixture
Trade name : FLAMMADUR® E 292
Other means of identification : FLAMMADUR® E 292 T

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

1.2.1. Relevant identified uses

Main use category : Industrial use
Use of the substance/mixture : Measures against fire
two-component casting resin
polyol Component
A Component
production of polyurethanes
Sealing

1.2.2. Uses advised against

Restrictions on use : For professional use only

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier
KuhnOdice Germany GmbH
Glüsinger Straße 86
DE 21217 Seevetal
Germany
T +49 2753 5945-0

Email competent person
sds@kft.de

1.4. Emergency telephone number

Emergency number : +353 1 443 4289 (+61 3 9573 3188) (24 h/365 d)

Country/Area	Organisation	Emergency number
Ireland	National Poisons Information Centre. Beaumont Hospital. PO Box 1297. Beaumont Road 9 Dublin.	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Endocrine disruptor for the environment, Category 1 EUH430
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause endocrine disruption in the environment.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word (CLP) : Danger
Contains : Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate

Hazard statements (CLP) : EUH430 - May cause endocrine disruption in the environment.

Precautionary statements (CLP) : P201 - Obtain special instructions before use.
P273 - Avoid release to the environment.
P391 - Collect spillage.
P405 - Store locked up.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	xylene (1330-20-7), ethylbenzene (100-41-4), Quartz (SiO2) (14808-60-7), benzyldimethylamine (103-83-3), cyclohexanone (108-94-1), Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	xylene (1330-20-7), ethylbenzene (100-41-4), Quartz (SiO2) (14808-60-7), benzyldimethylamine (103-83-3), cyclohexanone (108-94-1), Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate

The mixture contains substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Component	
Substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605	Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate
Substance(s) not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605	cyclohexanone (108-94-1), Quartz (SiO2) (14808-60-7), xylene (1330-20-7), ethylbenzene (100-41-4), benzyldimethylamine (103-83-3)

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate substance identified as having endocrine disrupting properties	EC-No.: 945-730-9 REACH-no: 01-2119511174-52-xxxx	≥ 1 - < 5	ED ENV 1, EUH430 Aquatic Acute 1, H400 Aquatic Chronic 3, H412

cyclohexanone substance with national workplace exposure limit(s) (IE); substance with a Community workplace exposure limit	CAS-No.: 108-94-1 EC-No.: 203-631-1 EC Index-No.: 606-010-00-7 REACH-no: 01-2119453616-35-xxxx	≥ 0.25 – < 1	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Inhalation:vapour), H332 (ATE=11 mg/l/4h) Eye Dam. 1, H318
Quartz (SiO2) substance with national workplace exposure limit(s) (IE); substance with a Community workplace exposure limit	CAS-No.: 14808-60-7 EC-No.: 238-878-4	< 3	Not classified
xylene substance with national workplace exposure limit(s) (IE); substance with a Community workplace exposure limit (Note C)	CAS-No.: 1330-20-7 EC-No.: 215-535-7 EC Index-No.: 601-022-00-9 REACH-no: 01-2119488216-32-xxxx	≥ 0.25 – < 1	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Inhalation:vapour), H332 (ATE=11 mg/l/4h) Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304
ethylbenzene substance with national workplace exposure limit(s) (IE); substance with a Community workplace exposure limit	CAS-No.: 100-41-4 EC-No.: 202-849-4 EC Index-No.: 601-023-00-4	≥ 0.1 – < 0.25	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:vapour), H332 (ATE=17.8 mg/l/4h) STOT RE 2, H373 Asp. Tox. 1, H304
benzyldimethylamine	CAS-No.: 103-83-3 EC-No.: 203-149-1 EC Index-No.: 612-074-00-7 REACH-no: 01-2119529232-48-xxxx	≥ 0.1 – < 0.25	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 (ATE=579 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1477 mg/kg bodyweight) Acute Tox. 3 (Inhalation:vapour), H331 (ATE=2.052 mg/l/4h) Skin Corr. 1B, H314 Aquatic Chronic 3, H412

Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

Self protection of the first-aider : First-aiders should pay attention to their own protection and use the recommended personal protective equipment (see section 8).

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon monoxide. Carbon dioxide. Metal oxides. Phosphorus oxides.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Other information : Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not handle until all safety precautions have been read and understood.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Avoid sub-soil penetration. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.

Other information : Disposal must be done according to official regulations.

6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Store locked up.

Storage temperature : 10 – 40 °C

Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

xylene (1330-20-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Xylene, mixed isomers, pure
IOEL TWA	221 mg/m³
	50 ppm
IOEL STEL	442 mg/m³
	100 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Xylene, mixed isomers
OEL TWA	221 mg/m³
	50 ppm
OEL STEL	442 mg/m³
	100 ppm
Remark	IOELV (Indicative Occupational Exposure Limit Values), Skin (Substances which have the capacity to penetrate intact skin when they come in contact with it and be absorbed into the body. A substantial contribution to the total body burden via dermal exposure is possible)
Regulatory reference	Chemical Agents Code of Practice 2024
Ireland - Biological limit values	
Local name	Xylene
BMGV	1.5 g/g creatinine Parameter: methylhippuric acids - Medium: urine - Sampling time: End of Shift
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)

ethylbenzene (100-41-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethylbenzene

IOEL TWA	442 mg/m³
	100 ppm
IOEL STEL	884 mg/m³
	200 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Ethylbenzene
OEL TWA	442 mg/m³
	100 ppm
OEL STEL	884 mg/m³
	200 ppm
Remark	IOELV (Indicative Occupational Exposure Limit Values), Skin (Substances which have the capacity to penetrate intact skin when they come in contact with it and be absorbed into the body. A substantial contribution to the total body burden via dermal exposure is possible)
Regulatory reference	Chemical Agents Code of Practice 2024
Ireland - Biological limit values	
Local name	Ethyl benzene
BMGV	0.7 g/g creatinine Parameter: mandelic acid and phenylglyoxylic acid - Medium: urine - Sampling time: End of shift at end of workweek - Notations: Ns (Non-specific), Sq (Semi-quantitative) Parameter: ethylbenzene - Medium: end-exhaled air - Sampling time: Not critical - Notations: Sq (Semi-quantitative)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)

Quartz (SiO2) (14808-60-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Silica crystaline (Quartz)
IOEL TWA	0.05 mg/m³ (respirable dust)
Remark	(Year of adoption 2003)
Regulatory reference	SCOEL Recommendations
Ireland - Occupational Exposure Limits	
Local name	Quartz, respirable dust
OEL TWA	0.1 mg/m³
Remark	BOELV (Binding Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2024

cyclohexanone (108-94-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Cyclohexanone
IOEL TWA	40.8 mg/m³
	10 ppm

IOEL STEL	81.6 mg/m³
	20 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Cyclohexanone
OEL TWA	40.8 mg/m³
	10 ppm
OEL STEL	81.6 mg/m³
	20 ppm
Remark	IOELV (Indicative Occupational Exposure Limit Values), Skin (Substances which have the capacity to penetrate intact skin when they come in contact with it and be absorbed into the body. A substantial contribution to the total body burden via dermal exposure is possible)
Regulatory reference	Chemical Agents Code of Practice 2024
Ireland - Biological limit values	
Local name	Cyclohexanone
BMGV	8 mg/l Parameter: cyclohexanol - Medium: urine - Sampling time: End of shift - Notations: Cyclohexanol= metabolite; Ns (Non-specific) 80 mg/l Parameter: 1,2-Cyclohexanediol - Medium: urine - Sampling time: End of shift - Notations: Ns (Non-specific)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

xylene (1330-20-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	442 mg/m³
Acute - local effects, inhalation	442 mg/m³
Long-term - systemic effects, dermal	212 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	221 mg/m³
Long-term - local effects, inhalation	221 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	260 mg/m³
Acute - local effects, inhalation	260 mg/m³
Long-term - systemic effects,oral	5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	65.3 mg/m³
Long-term - systemic effects, dermal	125 mg/kg bodyweight/day
Long-term - local effects, inhalation	65.3 mg/m³

PNEC (Water)	
PNEC aqua (freshwater)	0.044 mg/l
PNEC aqua (marine water)	0.004 mg/l
PNEC aqua (intermittent, freshwater)	0.01 mg/l
PNEC aqua (intermittent, marine water)	0.001 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	2.52 mg/kg dwt
PNEC sediment (marine water)	0.252 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.852 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	1.6 mg/l

ethylbenzene (100-41-4)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	293 mg/m³
Long-term - systemic effects, dermal	180 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	77 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	1.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	15 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.1 mg/l
PNEC aqua (marine water)	0.01 mg/l
PNEC aqua (intermittent, freshwater)	0.1 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	13.7 mg/kg dwt
PNEC sediment (marine water)	1.37 mg/kg dwt
PNEC (Soil)	
PNEC soil	2.68 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	20 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	9.6 mg/l

benzyldimethylamine (103-83-3)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	2.1 mg/kg bodyweight/day
Acute - systemic effects, inhalation	14.8 mg/m³
Long-term - systemic effects, dermal	1.05 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	7.4 mg/m³

DNEL/DMEL (General population)	
Acute - systemic effects, dermal	0.8 mg/kg bodyweight/day
Acute - systemic effects, inhalation	2.6 mg/m³
Acute - systemic effects, oral	0.8 mg/kg bodyweight
Long-term - systemic effects,oral	0.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.3 mg/m³
Long-term - systemic effects, dermal	0.4 mg/kg bodyweight/day

cyclohexanone (108-94-1)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	10 mg/m³
Acute - local effects, dermal	4 mg/kg bodyweight/day
Acute - local effects, inhalation	20 mg/m³
Long-term - systemic effects, dermal	4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	10 mg/m³
Long-term - local effects, inhalation	40 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, oral	1.5 mg/kg bodyweight/day
Acute - local effects, dermal	1 mg/kg bodyweight/day
Acute - local effects, inhalation	5 mg/m³
Long-term - systemic effects,oral	1.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.55 mg/m³
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.356 mg/l
PNEC aqua (marine water)	0.036 mg/l
PNEC aqua (intermittent, freshwater)	3.29 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	2.69 mg/kg dwt
PNEC sediment (marine water)	0.269 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.328 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	4 mg/kg bodyweight/day
Acute - systemic effects, inhalation	28 mg/m³
Long-term - systemic effects, dermal	0.5 mg/kg bodyweight/day

Long-term - systemic effects, inhalation	3.5 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	2 mg/kg bodyweight/day
Acute - systemic effects, inhalation	7 mg/m³
Acute - systemic effects, oral	2 mg/kg bodyweight
Long-term - systemic effects,oral	0.25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.875 mg/m³
Long-term - systemic effects, dermal	0.25 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.002 mg/l
PNEC aqua (marine water)	0 mg/l
PNEC aqua (intermittent, freshwater)	0.005 mg/l
PNEC aqua (intermittent, marine water)	0.001 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.43 mg/kg dwt
PNEC sediment (marine water)	0.343 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.68 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	267 mg/kg food

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:
Use splash goggles when eye contact due to splashing is possible. ISO 16321-1

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing. EN ISO 13688. EN 13034

Hand protection:
In case of repeated or prolonged contact wear gloves. ISO 374-1. Nitrile rubber. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. EN 143. Breathing apparatus with filter. A-P2. . Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

Consumer exposure controls:
Under the intended and foreseeable conditions of use, the product does not generate respirable dust, and therefore exposure to substances in dust form is not expected during handling or application. Occupational exposure limits relating to dust are only relevant if dust is generated (e.g, during the mechanical processing of the cured product).

Other information:
Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Brown.
Appearance	:	highly viscous. Pasty.
Odour	:	almost odourless.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Not combustible
Explosive properties	:	Product is not explosive.
Oxidising properties	:	Non oxidizing.
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	> 200 °C
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	24691.358 – 25316.456 mm²/s
Viscosity, dynamic	:	≥ 40000 mPa·s (20 °C)
Solubility	:	Water: Not miscible
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	1.58 – 1.62 g/cm³ (20 °C)
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content	:	≈ 7 %

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

FLAMMADUR® E 292	
ATE CLP (vapours)	> 20 mg/l

benzyldimethylamine (103-83-3)	
LD50 oral	579 mg/kg bodyweight
LD50 dermal	1477 mg/kg bodyweight
LC50 Inhalation - Rat (Vapours)	2.052 mg/l/4h

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

FLAMMADUR® E 292	
Viscosity, kinematic	24691.358 – 25316.456 mm²/s

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Component	
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	The substance is identified for having endocrine disrupting properties but there is no additional data available (see section 2.3)

11.2.2. Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic) : Not classified (Based on available data, the classification criteria are not met)

xylene	
EC50 72h algae	4.831 mg/l (72 h; Pseudokirchneriella subcapitata)

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	
LC50 - Fish [1]	1.3 mg/l (Oryzias latipes (Ricefish))
EC50 - Crustacea [1]	3.7 mg/l (24 h; Daphnia magna (Water flea))
EC50 72h algae	0.55 mg/l (Desmodesmus subspicatus)
NOEC chronic crustacea	0.12 mg/l (14 d; Daphnia magna (Water flea))
NOEC chronic algae	0.11 mg/l (72 h; Desmodesmus subspicatus)

12.2. Persistence and degradability

FLAMMADUR® E 292	
Persistence and degradability	The product has not been tested.

xylene (1330-20-7)	
Biodegradation	87.8 % (28 d; (OECD 301F method))

ethylbenzene (100-41-4)	
Persistence and degradability	Readily biodegradable.
Biodegradation	70 – 80 % (28d; ISO 14593-CO2-Headspace Test)

cyclohexanone (108-94-1)	
Persistence and degradability	Readily biodegradable.
Biodegradation	90 – 100 % (28 d; (OECD 301F method))

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	
Persistence and degradability	Readily biodegradable.
Biodegradation	75 % (28 d)

12.3. Bioaccumulative potential

FLAMMADUR® E 292	
Bioaccumulative potential	The product has not been tested.

xylene (1330-20-7)	
Bioconcentration factor (BCF REACH)	< 25.9

Partition coefficient n-octanol/water (Log Pow)	3.2 (20 °C)
Bioaccumulative potential	Bioaccumulation is not expected to occur.

ethylbenzene (100-41-4)	
Partition coefficient n-octanol/water (Log Pow)	3.6 (20 °C; EU Method A.8)

cyclohexanone (108-94-1)	
Partition coefficient n-octanol/water (Log Pow)	0.86 (25 °C; (OECD 107 method))
Bioaccumulative potential	Bioaccumulation unlikely.

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	
Bioconcentration factor (BCF REACH)	220
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

FLAMMADUR® E 292	
Mobility in soil	The product has not been tested

xylene (1330-20-7)	
Surface tension	28.747 mN/m (25°C; average (Isomer mixture))
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	≈ 2.73 (o-xylene; Estimation of the adsorption coefficient (Koc) on soil and on sewage sludge using high performance liquid chromatography (HPLC); (OECD 121 method))
Ecology - soil	Very volatile.

ethylbenzene (100-41-4)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.12 (QSAR)

cyclohexanone (108-94-1)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.596 (25 °C; Quantitative structure-activity relationship (QSAR))

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	4.245

12.5. Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	xylene (1330-20-7), ethylbenzene (100-41-4), Quartz (SiO2) (14808-60-7), benzyldimethylamine (103-83-3), cyclohexanone (108-94-1), Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	xylene (1330-20-7), ethylbenzene (100-41-4), Quartz (SiO2) (14808-60-7), benzyldimethylamine (103-83-3), cyclohexanone (108-94-1), Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture contains substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605: Triphenyl phosphate.

Component	
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	The substance is identified for having endocrine disrupting properties but there is no additional data available (see section 2.3)

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Disposal must be done according to official regulations. European waste catalogue. Do not discharge into drains or the environment. Do not dispose of with domestic waste.

Product/Packaging disposal recommendations : Recycle or dispose of in compliance with current legislation.

European List of Waste (LoW, EC 2000/532) : 08 01 11* - waste paint and varnish containing organic solvents or other dangerous substances

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated for transport				
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport
Not regulated

Transport by sea
Not regulated

Air transport
Not regulated

Inland waterway transport
Not regulated

Rail transport
Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Other information, restriction and prohibition regulations : Take note of Directive 94/33/EC on the protection of young people at work. Take note of Directive 92/85/EC on the safety and health of pregnant workers at work.

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	**Applicable on**
3(a)	xylene ; ethylbenzene ; benzyldimethylamine ; cyclohexanone
3(b)	xylene ; ethylbenzene ; benzyldimethylamine ; cyclohexanone
3(c)	benzyldimethylamine ; Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)
Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

VOC Directive (2004/42)

VOC content : ≈ 7 %
Decopaint Directive (2004/42/EC) - Annex II : A/j (Paints and Varnishes - Two-pack reactive performance coatings for specific end use such as floors)
Maximum allowed concentration : 500 g/l VOC
Maximum content of VOC : 116.70 g/l VOC

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CAS-No.	Chemical Abstracts Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EWC	European waste catalogue
EC50	Median effective concentration
EC-No.	European Community number
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit

UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Data sources : MSDSs of the suppliers. Information provided by the manufacturer. European Chemicals Agency, http://echa.europa.eu/.

Department issuing data specification sheet: : KFT Chemieservice GmbH
Im Leuschnerpark 3
D-64347 Griesheim

Phone: +49 69 305 34 700
Fax: +49 69 305 86 500
SDS Service: +49 69 305 34 740

Full text of H- and EUH-statements:	
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
ED ENV 1	Endocrine disruptor for the environment, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
EUH430	May cause endocrine disruption in the environment.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.

H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
ED ENV 1	EUH430	Calculation method

KFT SDS EU 11 - Version 25.1

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.