

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Diemet liquid

CAS number: -
EC number (EINECS/ELINCS): -
EC index number: -
REACH registration number: -

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

Identified uses of the substance or mixture: Plastic articles
Not recommended uses of the substance or mixture: Other

1.3 Details of the supplier of the safety data sheet

Manufacturer

ERKODENT Erich Kopp GmbH
Siemensstrasse 3

Telephone: 07445 8501 0
Fax: 07445 2092

D 72285 Pfalzgrafenweiler

Supplier

ERKODENT Erich Kopp GmbH
Siemensstrasse 3

Telephone: 07445 8501 0
Fax: 07445 2092

D 72285 Pfalzgrafenweiler

Information contact

ERKODENT Erich Kopp GmbH

Information Telephone: 07445 8501 21

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Website: www.erkodent.com

National contact

ERKODENT Erich Kopp GmbH

Information Telephone: 07445 8501 0

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E-mail (competent person): info@erkodent.com

Website:

1.4 Emergency telephone number

ERKODENT Erich Kopp GmbH
Only available during office hours.

Telephone: 07445 8501 0

1.5 Dept. responsible for information

Entwicklung +49 (0) 7445 8501-21

2. Hazards identification

2.1 Classification of the substance or mixture

Regulation (EC) No 1272/2008:

Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , STOT RE 1; H372

Directive 67/548/EEC:

-; R10 , Xn; R20 , Xi; R36 , Xi; R38

2.2 Label elements

2.2.1 Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms:



	GHS02,GHS07,GHS08
Signal word:	Danger
H phrases:	226 Flammable liquid and vapour. 315 Causes skin irritation. 319 Causes serious eye irritation. 335 May cause respiratory irritation. 372 Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
P phrases:	210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 240 Ground/bond container and receiving equipment. 241 Use explosion-proof electrical/ventilating/lighting/.?/ equipment. 242 Use only non-sparking tools. 243 Take precautionary measures against static discharge. 260 Do not breathe dust/fume/gas/mist/vapours/spray. 264 Wash .? thoroughly after handling. 270 Do no eat, drink or smoke when using this product. 280 Wear protective gloves/protective clothing/eye protection/face protection. 303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. 304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 332+313 If skin irritation occurs: Get medical advice/attention. 337+313 If eye irritation persists: Get medical advice/attention. 403+233 Store in a well-ventilated place. Keep container tightly closed. 403+235 Store in a well-ventilated place. Keep cool. 501.1 Dispose of contents/container to an industrial incineration plant.

2.2.2 Labelling according to Directive 67/548/EEC

Hazard symbols:



R phrases:	Xn Harmful. 10 Flammable. 20 Harmful by inhalation.
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- S phrases:**
- 36/38 Irritating to eyes and skin.
 - 2 Keep out of the reach of children.
 - 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 - 45 In case of accident or if you feel unwell, seek medical advice immediately (show this label if possible).
 - 45 In case of accident or if you feel unwell, seek medical advice immediately (show this label if possible).
 - 51 Use only in well-ventilated areas.

2.3 Other hazards

none

3. Composition/information on ingredients

3.1 Chemical characterization of the substance or mixture

Preparation based on unsaturated polyester resin

3.2 Composition of the substance or mixture

Substance:	EC-no.:	CAS-No.:	INDEX no.:	REACH-no.:	Concentration:	Classification: EC 1272/2008(CLP):	Classification: 67/548/EEC:
Styrene	202-851-5	100-42-5	601-026-00-0		30<40%	Flam. Liq. 1; H224 Acute Tox. 4; H332 Eye Irrit. 2; H319 Skin Irrit. 2; H315	-; R10 Xn; R20 Xi; R36/38

Ingredients with EC exposure limits

Substance:	EC-no.:	CAS-No.:	INDEX no.:	REACH-no.:	Concentration:	Classification: EC 1272/2008(CLP):	Classification: 67/548/EEC:

(The wording of the listed risk phrases is given in Chapter 16)

3.3 Additional information

none

4. First aid measures

4.1 Description of first aid measures

- General information:** In all cases of doubt, or when symptoms persist, seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. In case of unconsciousness place in unconscious position and seek medical advice.
- Following inhalation:** Move victim to fresh air. Put victim at rest and keep warm. In case of irregular breathing or respiratory arrest provide artificial respiration.
- After skin contact:** After contact with skin, wash immediately with plenty of water and soap. Seek medical attention if problems persist. In case of skin irritation, consult a physician. Take off immediately all contaminated clothing.
- Following eye contact:** In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
- After ingestion:** If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do not induce vomiting.
- Self-protection:** First aid assistant: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: In all cases of doubt, or when symptoms persist, seek medical advice.
Nature of Hazard: No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Emergency aid: No information available.
Treatment: Treat symptomatically.

5. Fire fighting measures

5.1 General information

none

5.2 Extinguishing media

Suitable: Extinguishing powder. Carbon dioxide. alcohol resistant foam. Water spray.
Unsuitable: High power water jet.

5.3 Special hazards arising from the substance or mixture

If decomposition products are inhaled the following symptoms can occur: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

5.4 Advice for fire fighters

Special protective equipment for fire-fighters
In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Wear personal protection equipment. Remove all sources of ignition. Avoid contact with skin, eyes and clothes.

6.2 Environmental precautions

Do not empty into drains or the aquatic environment. Do not allow to enter into soil/subsoil.

6.3 Methods and materials for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the assimilated material according to the section on waste disposal.

6.4 References to other sections

Wet clean or vacuum up solids. Clear spills immediately. Do not use a brush or compressed air for cleaning surfaces or clothing.

7. Handling and storage

7.1 Precautions for safe handling

Information for safe handling

In use may form flammable/explosive vapour-air mixture. Vapours can form explosive mixtures with air.

Personal protection equipment Only use material in places where open light, fire and other sources of ignition can be kept away. Take precautionary measures against static discharge. Avoid contact with skin, eyes and clothes. Do not breathe dusts or mists. Do not eat, drink, smoke or sneeze at the workplace.

Technical measures

This material can accumulate static charge by flow or agitation and can be ignited by static discharge.

Precautions against fire and explosion

Concentrated vapours are heavier than air. Vapours may form explosive mixtures with air.

Additional information

none

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Take precautionary measures against static discharges. Betriebssicherheitsverordnung (BetrSichV) When using do not smoke.

Packaging materials

Keep/Store only in original container.

Requirements for storerooms and containers

Keep in a cool, well-ventilated place. Put lids on containers immediately after use.

Information about storing together in storage facility

Keep away from food, drink and animal feedingstuffs. Keep away from: acid. Base. Oxidizing agents.

Further information concerning storage conditions

Always close containers tightly after the removal of product. Only use material in places where open light, fire and other sources of ignition can be kept away. Keep only in the original container in a cool, well-ventilated place. Keep container tightly closed in a cool, well-ventilated place. Recommended storage temperature: Observe technical data sheet.

Storage class: 3

7.3 Specific end use(s)

Observe instructions for use. Observe technical data sheet.

8. Exposure controls / personal protection

8.1 Control parameters

8.1.1 Limits for occupational exposure

Exposure limit values

Substance:	CAS-No.:	Source:	Occupational exposure limit value:	Limitation of exposure peaks:	Remark:
Styrene	100-42-5	VCI-Arbeitsplatzrichtwerte-Tabelle / TRGS 900			STEL (EC): Kurzzeit-Arbeitsplatzgrenzwert TWA (EC): Arbeitsplatzgrenzwert

EC exposure limit values

Substance:	CAS-No.:	Source:	Occupational exposure limit value:	Limitation of exposure peaks:	Remark:

8.1.2 DNEL and PNEC values

DNEL-values

Substance:	CAS-No.:	DNEL/DMEL	Industry	Professional	consumer

PNEC-values

Substance:	CAS-No.:	PNEC	Worker, industry	Worker, professional	consumer
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8.1.3 Control-Banding**Control-Banding**

none

8.1.4 Additional information

Occupational exposure limit value: TRGS 900

8.2 Exposure controls**Occupational exposure controls**

Technical ventilation of workplace In case of insufficient ventilation, wear suitable respiratory equipment.

Chemical handling

Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work.
Take off immediately all contaminated clothing.

Personal protection equipment

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Use suitable breathing apparatus. XXXX Only use breathing apparatus with CE-label including the four-digit identification number.

Hand protection

penetration time (maximum wearing period): Thickness of glove material: Recommended protective gloves brand: German Industry Norms (DIN) / European Norms (EN): DIN EN 374 Breakthrough times and swelling characteristics of the material must be taken into consideration.

Eye protection

Tightly sealed safety glasses.

Skin protection

For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

Environmental exposure controls

refer to chapter 7. No further action is necessary. Do not empty into drains or the aquatic environment.

Consumer exposure controls

refer to chapter 7. No further action is necessary.

8.3 Exposure scenario

none

9. Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

State of matter:	liquid
Colour:	amber coloured
Odour:	Styrene.
Odour threshold:	No data available

Safety relevant basis data

	Parameter	Value	Unit	Remark
Density:	at °C:	1,15	g/cm ³	
Package density:				not applicable
pH:				not applicable
Melting point / range:				not applicable
Boiling temperature / range:		145	°C	
Flash point:		> 23	°C °C °C	
Flammability:		425	°C	
Lower flammability limit:				not determined
Upper flammability limit:				not determined
Explosion hazard:				
Lower explosion limit:		1,1	Vol-%	
Upper explosion limit:		8,0	Vol-%	
Ignition temperature:				none Risk of selfignition.
Decomposition temperature:				not determined
Oxidizing characteristics:				not determined
Vapour pressure:	at °C:	1,74	mbar	
Relative vapour density:				not determined
Speed of vaporization/evaporation rate:				not determined
Solubility in water:				insoluble
Fat solubility:				not determined
Solubility in log P O/W (n-octanol / water):	:			
Viscosity:				
Solvent separation test:		<3	%	
Solvent content:		30	% by weight	Substance, organic

9.2 Other information

Solid content (%) 71

10. Stability and reactivity**10.1 Reactivity**

Polymerization.

10.2 Chemical stability

refer to chapter 7. No further action is necessary.

10.3 Possibility of hazardous reactions

Exothermic reactions with: acid. Oxidizing agents. Base.

10.4 Conditions to avoid

Keep away from heat. Violent reaction with:

10.5 Incompatible materials

acid. Base. Oxidizing agents

10.6 Hazardous decomposition productsCarbon dioxide (CO₂) Carbon monoxide. Nitrogen oxides (NO_x)**10.7 Additional information**

none

11. Toxicological information

11.1 Information on toxicological effects

Data apply to the principal component.

Acute toxicity

Substance:	CAS-No.:	Toxicological information
Styrene	100-42-5	Styrene inhalative; LC50 12 mg/l (4h) rat

Specific symptoms in laboratory animals

Toxicological data are not available.

11.2 Irritation and etching

Irritant effect on the skin

Toxicological data are not available.

Irritant effect on the eye

Toxicological data are not available.

Irritant effect on the respiratory tract

Toxicological data are not available.

Etching

Toxicological data are not available.

11.3 Sensitization

Toxicological data are not available.

11.4 Repeated dose toxicity

Toxicological data are not available.

11.5 CMR effects

Carcinogenicity

Toxicological data are not available.

Mutagenicity

Toxicological data are not available.

Reproductive toxicity

Toxicological data are not available.

11.6 General remarks

The ingredients in this preparation do not meet the criteria for classification as CMR category 1 or 2. according to 67/548/EEC.

Practical experience

May cause damage to liver through prolonged or repeated exposure by inhalation. May cause damage to kidneys through prolonged or repeated exposure by inhalation. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Central nervous system depression Symptoms: Headache. Dizziness. drowsiness. May cause drowsiness or dizziness. unconsciousness. VOC limit value step I (g/l), ready-to-use condition: Risk of serious damage to eyes.

Other observations

No information available.

Additional information

No information available.

12. Ecological information

12.1 Toxicity

There are no data available on the mixture itself.

Eco toxicity

Substance:	CAS-No.:	Ecotoxicity

12.2 Persistence and degradability

There are no data available on the mixture itself.

12.3 Bio accumulative potential

There are no data available on the mixture itself.

12.4 Mobility in soil

There are no data available on the mixture itself.

12.5 Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6 Other adverse effects

There are no data available on the mixture itself.

12.7 Further ecological information

There are no data available on the mixture itself.

12.8 Further details

Do not empty into drains or the aquatic environment.

13. Disposal considerations

13.1 Waste treatment methods

Appropriate disposal/Product

Do not empty into drains or the aquatic environment. Dispose of waste in own country; otherwise, follow EC regulations. Waste disposal according to EC Directives 75/442/EEC and 91/689/EEC on waste and hazardous waste in their latest versions.

Appropriate disposal/ packaging

Waste disposal according to official state regulations.

Control report for waste code/ waste marking according to EAKV

Carry out a burning of hazardous waste according to official regulations.

Waste key product: 08 01 11 - Farb- und Lackabfälle, die organische Lösemittel oder andere gefährliche Stoffe enthalten

Waste key packaging:

Remark

Waste disposal according to official state regulations.

14. Transport information

14.1 Overland transport (ADR/RID)

Proper Shipping name
HARZLÖSUNG

UN No.: 1866

Label: 3

Packing Group: III

Classification code:

Remark: Tunnel restriction code: D/E ; > 450 Class: 3

14.2 Transport by sea (IMDG)

Proper Shipping name
RESIN SOLUTION

UN-No.: 1866

Label: 3

Packing Group: III

EmS-No: F-E, S-E

MFAG:

Marine pollutant:

Special Provisions:

Remark: not applicable

14.3 Air transport (ICAO-TI / IATA-DGR)

Proper Shipping name
Resin solution

UN/ID-No.: 1866

Label: 3

Packing Group: III

Remark: not applicable

14.4 Mail

not applicable

15. Regulatory information

15.1 Labelling

Hazardous component(s) for labelling
xxx (Styrol)

Special labelling of particular preparations

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

EU-Regulations

Directive 1999/13/EC on the limitation of emissions of volatile organic compounds (VOC-RL)
ISO 11890-2 ASTM D 2369 VOC-value (in g/l):0

Regulation (EC) No 2037/2000 on substances that deplete the ozone layer
No information available.

Regulation (EC) No 850/2004 on persistent organic pollutants
No information available.

Regulation (EC) No 689/2008 concerning the export and import of dangerous chemicals
No information available.

Regulation (EC) No 648/2004 (Detergents regulation)
No information available.

Restrictions under Title VIII of Regulation (EC) No 1907/2006

No information available.

National regulations

Moreover, national legislation has to be observed!

Informations on working limitations

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions under the law for the protection of young people at work (94/33/EC).

Major Accidents Ordinance

No information available.

Storage class according to VCI

3

Water Hazard Class according to VwVwS

2 water pollutant (WGK 2)

Technical Instructions on Air Quality Control (TA-Luft)

unit/mass flow rate:

Further regulations, limitations and legal requirements

Berufsgenossenschaftliche Regeln (BGR)

15.3 Chemical safety assessment

For this preparation a chemical safety assessment has been carried out:

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

16. Other information**16.1 Wording of the H and R-phrases under paragraph 3****Regulation (EC) No 1272/2008**

- 315 Causes skin irritation.
- 319 Causes serious eye irritation.
- 332 Harmful if inhaled.

Directive 67/548/EEC

- 10 Flammable.
- 20 Harmful by inhalation.
- 36/38 Irritating to eyes and skin.

16.2 Training instructions

none/none

16.3 Recommended restrictions of use

none

16.4 Further remarks

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

16.5 Documentation of changes

* Data changed from previous versions

16.6 Data sources

none/none

16.7 Key and definition

Wording of the r-phrases under paragraph 3:

17. Appendix

17.1 Exposure scenario

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