

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier****Leiston-Resin**

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CAS No.: --
EG No.: --
INDEX No.: --
REACH No.: --**1.2. Relevant identified uses of the substance or mixture and uses advised against**Relevant identified uses: Plastic articles
Uses advised against: Other**1.3. Details of the supplier of the safety data sheet****Manufacturer**ERKODENT Erich Kopp GmbH
Siemensstrasse 3
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D 72285 PfalzgrafenweilerTelephone: +49 7445 8501 0
Telefax: +49 7445 8501-15**Supplier (manufacturer/importer/only representative/downstream user/distributor)**ERKODENT Erich Kopp GmbH
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ERKODENT Erich Kopp GmbH

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SECTION 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; Repr. 2, H361d; STOT SE 3, H335; STOT RE 1, H372; Aquatic Chronic 3, H412**2.2. Label elements**

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

Hazard pictograms:



Signal word:

Hazard statements:

GHS02,GHS07,GHS08

Danger

- H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H361d Suspected of damaging the unborn child.
H372 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).
H412 Harmful to aquatic life with long lasting effects.
- Precautionary statements:**
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/.?/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash .? thoroughly after handling.
P270 Do no eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+313 IF exposed or concerned: Get medical advice/attention.
P332+313 If skin irritation occurs: Get medical advice/attention.
P337+313 If eye irritation persists: Get medical advice/attention.
P403+233 Store in a well-ventilated place. Keep container tightly closed.
P403+235 Store in a well-ventilated place. Keep cool.

Hazardous component(s) for labelling

Styrene

Special labelling of particular preparations:

not applicable

2.3. Other hazards

none

SECTION 3: Composition / information on ingredients

3.1. Substances

Mixtures

3.2. Mixtures

Preparation based on unsaturated polyester resins

Composition/information on ingredients

Substance:	EC-no.:	CAS-No.:	INDEX no.:	REACH-no.:	Concentration:	Classification: EC 1272/2008 (CLP):
Cyclohexane	203-806-2	110-82-7	601-017-00-1			Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Acute 1, H400; Aquatic Chronic 1, H410
Styrene	202-851-5	100-42-5	601-026-00-0	01-21194557861-32		Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Repr. 2, H361d; STOT SE 3, H335; STOT RE 1, H372; Asp. Tox. 1, H304; Aquatic Chronic 3, H412; Flam. Liq. 3, H226

(Full text of H- and EUH-phrases: see section 16.)

SECTION 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. If unconscious place in recovery 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.
- Following 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.
- After 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.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. 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.

5.3. Advice for firefighters

General information

No information available.

Special protective equipment for firefighters:

In case of fire: Wear self-contained breathing apparatus. Protective clothing.

SECTION 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. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean with detergents. Avoid solvent cleaners.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

In use may form flammable/explosive vapour-air mixture. Vapours can form explosive mixtures with air. Personal protection equipment Only use the material in places where open light, fire and other flammable sources can be kept away. Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothes. Do not breathe dusts or mists. When using do not eat, drink, smoke, sniff. Avoid generation of dust.

Precautions against fire and explosion

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

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

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

Hints on joint storage

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

Storage class: 3

7.3. Specific end use(s)

Observe instructions for use. Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit value

Substance:	CAS-No.:		Source :	Occupational exposure limit value:[ppm]	Occupational exposure limit value:[mg/m³]	Limitation of exposure peaks:	Remark:
Styrene	100-42-5	EN	TWA	100	430		
		EN	STEL	250	1050		

		EN	TRGS 900	40	172		AGW, short-term value
		EN	TRGS 903		600		BGW, long term, mg / g
		EN	TRGS 900	20	86		AGW, long-term value
Cyclohexane	110-82-7	EN	TWA	100	350		
		EN	STEL	300	1050		

Substance with a common (EC) occupational exposure limit value

Substance:	CAS-No.:	Source :	Occupational exposure limit value:[ppm]	Occupational exposure limit value:[mg/m³]	Limitation of exposure peaks:	Remark:
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DNEL-/PNEC-values

DNEL value

Substance:	CAS-No.:	DNEL/DMEL
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PNEC Value

Substance:	CAS-No.:	PNEC
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Remark:

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.

General protection and hygiene measures

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after 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

With correct and proper use, and under normal conditions, breathing protection is not required. Technical ventilation of workplace.

Hand protection

penetration time (maximum wearing period): > 480 min. Thickness of glove material: > 0,4 mm. Recommended protective gloves brand: DIN-EN-Norms: DIN EN 374 Breakthrough times and swelling properties of the material must be taken into consideration.

Eye/face protection

Tightly sealed safety glasses.

Body 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 allow to enter into surface water or drains.

Consumer exposure controls

refer to chapter 7. No further action is necessary.

Exposure Scenario

none

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:
Physical state: Liquid
Colour: amber
Odour: characteristic of: styrene
Odour threshold: not applicable

Safety relevant basis data

	Parameter	Value	Unit	Remark
pH:				not determined
Melting point/freezing point:				not applicable
Initial boiling point and boiling range:		83	°C	
Flash point:		> 23	°C	
Evaporation rate:				not determined
Flammability (solid, gas):				not applicable
Explosive properties:				not applicable
Lower flammability or explosive limits:		1,1	Vol-%	
Upper flammability or explosive limits:		8	Vol-%	
Vapour pressure:	at 20 °C	1,98	mbar	
Vapour density:				not applicable
Relative density:		1,11	g/cm ³	
Density:	at 20 °C	1,11	g/cm ³	
Solubility(ies):	:			not determined
Water solubility:				insoluble
Fat solubility:				not determined
Partition coefficient: n-octanol/water:				not determined
Auto-ignition temperature:		425	°C	
Decomposition temperature:				not applicable
Viscosity:	at 20 °C	178	s	Flow cup: 4 mm
Oxidising properties:				not applicable
Solvent content:	org.	34	Wt %	

9.2. Other information

Solid content (%): 65,64; Solvent separation test (%): < 3 (ADR/RID)

SECTION 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.

10.5. Incompatible materials

Acid. Base. Oxidizing agents.

10.6. Hazardous decomposition products

Carbon dioxide (CO₂) Carbon monoxide. Nitrogen oxides (NO_x)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Data apply to the main component.

M-factor: --

Acute toxicity (dermal): --

Acute toxicity (oral): --

Acute toxicity (inhalative): --

Acute toxicity

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

Skin corrosion/irritation

Has degreasing effect on the skin. Frequently or prolonged contact with skin may cause dermal irritation.

Serious eye damage/irritation

Irritating to eyes.

Respiratory or skin sensitisation

Toxicological data are not available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

Toxicological data are not available.

Germ cell mutagenicity

Toxicological data are not available.

Reproductive toxicity

Toxicological data are not available.

STOT-single exposure

Occupational exposure limit: May cause damage to liver through prolonged or repeated exposure if inhaled. May cause damage to kidneys through prolonged or repeated exposure if inhaled. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Depression of central nervous system 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.

STOT-repeated exposure

No information available.

Aspiration hazard

Irritating to respiratory system.

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

Ecotoxicity

Substance:	CAS-No.:	Ecotoxicity
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12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative 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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal/Product:

Do not allow to enter into surface water or drains. 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 / Package:

Send to a hazardous waste incinerator facility under observation of official regulations. Handle contaminated packages in the same way as the substance itself.

List of proposed waste codes/waste designations in accordance with EWC

Send to a hazardous waste incinerator facility under observation of official regulations.

Waste code product: --

Waste code packaging: --

SECTION 14: Transport information

14.1. UN number

UN No.: 1866

14.2. UN proper shipping name

ADR / RID

Harzlösung, viskos, entzündbar

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IMDG / ICAO-TI / IATA-DGR

Resin solution, viscous, flammable

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14.3. Transport hazard class(es)

Hazard label(s):: 3

Classification Code:

F1



14.4. Packing group

Packing Group: III

14.5. Environmental hazards

Labelling environmentally hazardous substances

ADR/RID / IMDG-Code / ICAO-TI / IATA-DGR: ☐ yes / ☒ no

Marine Pollutant: ☐ yes / ☒ no

14.6. Special precautions for user

Land transport (ADR/RID)

Transport category: --

Special provisions: --

Tunnel restriction code: D/E
Limited quantity (LQ): 5000ml

Sea transport (IMDG)

EmS-No: F-E, S-E

Special provisions: --

Limited quantity (LQ): 5000ml

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

Remark: not applicable

SECTION 15: Regulatory information

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

EU legislation

Regulation (EC) No 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register:
No information available.

Regulation (EC) No 1005/2009 on substance that deplete the ozone layer:
No information available.

Regulation (EC) No 648/2004 on detergents:
No information available.

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

Regulation (EU) No 649/2012 concerning the export and import of dangerous chemicals:
No information available.

Restrictions according to Title VIII of Regulation (EC) No 1907/2006:
No information available.

National regulations

Observe in addition any national regulations!

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations, restrictions and prohibition regulations

Trade association rules: 190; 192; 195

15.2. Chemical Safety Assessment

A chemical safety assessment has been carried out for this substance: --

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

SECTION 16: Other information

Relevant H- and EUH-phrases (Number and full text)

Hazard statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H372	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).
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Training advice

none

Recommended restrictions of use

none

Further information

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.

Documentation of changes

* Data changed compared with the previous version

Key literature references and sources for data

none

Abbreviations and acronyms

AC: Artikelkategorie (Article Category)

ACGIH: Rat für Arbeitsschutz und Gefahrstoffe, Amerika (American Conference of Government Industrial Hygienists)

ADN: Europäisches Übereinkommen über die internationale Beförderung gefährlicher Güter auf Binnengewässern (Accord européen relatif au transport international des marchandises dangereuses par

voies de navigation intérieures)
ADR: Europäisches Übereinkommen über die internationale Beförderung gefährlicher Güter auf der Straße (Accord européen relatif transport des marchandises dangereuses par route)
AGW: Arbeitsplatzgrenzwert
AOX: Adsorbierbare organisch gebundene Halogene (Adsorbable Organic halogen compounds)
Bw: Körpergewicht (Body weight)
CMR: Stoffe klassifiziert als Krebs erzeugend, Mutagen oder Reproduktionstoxisch (Carcinogenic, Mutagenic, toxic for Reproduction)
CSR: Stoffsicherheitsbericht (Chemical Safety Report)
DIN: Deutsches Institut für Normung / Deutsche Industrienorm
DNEL: Grenzwert, unterhalb dessen der Stoff keine Wirkung ausübt (Derived No Effect Level)
DPD: Zubereitungsrichtlinie / Richtlinie 1999-45-EC (Dangerous Preparations Directive)
DSD: Stoffrichtlinie / Richtlinie 67-548-EC (Dangerous Substances Directive)
DU: Nachgeschalteter Anwender (Downstream User)
EC50: Wirksame Konzentration 50% (Effective Concentration 50%)
ECHA: Europäische Chemikalienagentur
EN: Europäische Norm
EWC/EWL: Europäischer Abfallartenkatalog (European Waste Catalogue)
IATA: Verband für den internationalen Lufttransport (International Air Transport Association)
IBC: Großpackmittel (Intermediate Bulk Container)
ICAO: Internationale Zivilluftfahrt-Organisation (International Civil Aviation Organization)
IMDG Code: Gefahrgutvorschriften für den internationalen Seetransport (International Maritime Dangerous Goods Code)
IMO: Internationale Seeschiffahrts-Organisation (International Maritime Organization)
ISO: Internationale Normungsorganisation (International Standards Organisation)
LC50: Lethale (Tödliche) Konzentration 50%
LD50: Lethale (Tödliche) Dosis 50%
LEV: Lokale Absaugung (Local exhaust ventilation)
MAK: Maximale Arbeitsplatzkonzentration – DFG
n.a.: nicht anwendbar
n.b.: nicht bestimmt
OEL: Arbeitsplatzgrenzwert (Occupational Exposure Limit)
PBT: persistent, bioakkumulierbar, giftig (persistent, bioaccumulative, toxic)
PNEC: Abgeschätzte Nicht-Effekt-Konzentration (Predicted No Effect Concentration)
PPE/PSA: Persönliche Schutzausrüstung (Personal Protective Equipment)
REACH: Registrierung, Bewertung und Zulassung von Chemikalien (Registration, Evaluation and Authorization of Chemicals)
RID: Gefahrgutvorschriften für den Transport mit der Eisenbahn (Règlement International concernant le transport de marchandises dangereuses par chemin de fer)
STEL: Grenzwert für Kurzzeiteexposition (Short-term Exposure Limit)
SVHC: Stoff sehr hoher Besorgnis (Substance of Very High Concern)
TLV: Arbeitsplatzgrenzwert (Threshold Limit Value)
VOC: Flüchtige organische Kohlenwasserstoffe (Volatile Organic Compounds)
vPvB: sehr persistent, sehr bioakkumulierbar (very persistent, very bioaccumulative)