

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.06.2021

Version number 4

Revision: 28.06.2021

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

- **1.1 Product identifier**
 - Trade name: **Kerasys LC Polish**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**


No further relevant information available.

 - Application of the substance / the mixture Ceramic repair material
- **1.3 Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
Kulzer GmbH
Leipziger Straße 2, 63450 Hanau (Germany)
Tel.: +49 (0)6181 9689-2570 (Wehrheim)
 - **Informing department:** email: technik.wehrheim@kulzer-dental.com
- **1.4 Emergency telephone number:** Emergency CONTACT (24-Hour-Number): +49 (0)6132-84463

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
 - **Classification according to Regulation (EC) No 1272/2008**
STOT RE 2 H373 May cause damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalation.
 - **2.2 Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

 - **Hazard pictograms**
- 

GHS08
- **Signal word** Warning
 - **Hazard-determining components of labelling:**
Stoddard solvent
 - **Hazard statements**
H373 May cause damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalation.
 - **Precautionary statements**
 - P101 If medical advice is needed, have product container or label at hand.
 - P102 Keep out of reach of children.
 - P260 Do not breathe mist/vapours/spray.
 - P304+P312 IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
 - **Additional information:**
20 % of the mixture consists of component(s) of unknown toxicity.
Contains 20 % of components with unknown hazards to the aquatic environment.
 - **2.3 Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.

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SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description: -

· Dangerous components:

EC number: 919-857-5 Reg.nr.: 01-2119463258-33-xxxx	hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336	≥0-<20%
CAS: 8042-47-5 EINECS: 232-455-8	white mineral oil (petroleum) Asp. Tox. 1, H304	≥5-≤15%
CAS: 8052-41-3 EINECS: 232-489-3	Stoddard solvent STOT RE 1, H372; Asp. Tox. 1, H304 Skin Irrit. 2, H315 Aquatic Chronic 3, H412	≥0-<1.5%
CAS: 110-91-8 EINECS: 203-815-1	morpholine Flam. Liq. 3, H226 Acute Tox. 3, H311 Skin Corr. 1B, H314 Acute Tox. 4, H302; Acute Tox. 4, H332	≥0-<0.5%

· Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information

Personal protection for the First Aider.

Take affected persons into the open air.

· After inhalation

In case of unconsciousness bring patient into stable side position for transport.

Take affected persons into the open air and position comfortably

Supply fresh air.

Call a doctor immediately.

· After skin contact

If skin irritation or rash occurs: Get medical advice/attention.

Instantly wash with water and soap and rinse thoroughly.

· After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

Remove contact lenses, if present and easy to do. Continue rinsing.

· After swallowing

Rinse out mouth and then drink plenty of water.

In case of persistent symptoms consult doctor.

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

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· Suitable extinguishing agents CO₂, sand, extinguishing powder. Do not use water.

· For safety reasons unsuitable extinguishing agents Water with a full water jet.

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· 5.2 Special hazards arising from the substance or mixture*Formation of toxic gases is possible during heating or in case of fire.**Can be released in case of fire**Carbon dioxide (CO₂)**Carbon monoxide (CO)***· 5.3 Advice for firefighters****· Protective equipment:***Wear self-contained breathing apparatus.**(EN 133)***· Additional information** *Cool endangered containers with water spray jet.***SECTION 6: Accidental release measures****· 6.1 Personal precautions, protective equipment and emergency procedures***Wear protective equipment. Keep unprotected persons away.**Do not breathe vapor / mist / gas.**Ensure adequate ventilation**Keep away from ignition sources**Put on breathing apparatus.***· 6.2 Environmental precautions:***Do not allow to enter drainage system, surface or ground water.**Damp down gases/fumes/haze with water spray jet.**Do not allow to enter the ground/soil.***· 6.3 Methods and material for containment and cleaning up:***Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).**Send for recovery or disposal in suitable containers.***· 6.4 Reference to other sections***See Section 8 for information on personal protection equipment.**See Section 7 for information on safe handling***SECTION 7: Handling and storage****· 7.1 Precautions for safe handling***Ensure good ventilation/exhaustion at the workplace.**Prevent formation of aerosols.**Do not breathe vapor / mist / gas.**Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).**Wear protective equipment. Keep unprotected persons away.**Ensure good ventilation/exhaustion at the workplace.***· Handling***do not mix with**Strong oxidizers**Strong acids***· Information about protection against explosions and fires:***Fumes can combine with air to form an explosive mixture.**Protect against electrostatic charges.**Do not spray on flames or red-hot objects.**Keep ignition sources away - Do not smoke.***· 7.2 Conditions for safe storage, including any incompatibilities****· Storage****· Requirements to be met by storerooms and containers:***Store in cool, dry place in tightly closed containers.***· Information about storage in one common storage facility:** *Store away from foodstuffs.*

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Further information about storage conditions:

Protect from heat and direct sunlight.

Store cool (not above 25 °C).

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information about design of technical systems: No further data; see item 7.

Components with critical values that require monitoring at the workplace:

110-91-8 morpholine

WEL (Great Britain)	Short-term value: 72 mg/m ³ , 20 ppm Long-term value: 36 mg/m ³ , 10 ppm Sk
IOELV (European Union)	Short-term value: 72 mg/m ³ , 20 ppm Long-term value: 36 mg/m ³ , 10 ppm

DNELs

8042-47-5 white mineral oil (petroleum)

Oral	ge.pop., l.te, syst.	25 mg/Kg (nd)
Dermal	worker industr., l.te., syst.	217.05 mg/Kg/d (nd)
	ge.pop., l.te, syst.	93.02 mg/Kg/d (nd)
Inhalative	worker industr., l.te., syst.	164.56 mg/m ³ (nd)
	ge.pop., l.te, syst.	34.78 mg/m ³ (nd)

8052-41-3 Stoddard solvent

Oral	ge.pop., l.te, syst.	10.56 mg/Kg (nd)
Dermal	worker industr., acute, syst.	30 mg/Kg/d (nd)
	worker industr., l.te., syst.	80 mg/Kg/d (nd)
	worker industr., l.te., local	7.56 mg/Kg/d (nd)
	ge.pop., acu., syst.	60 mg/Kg/d (nd)
	ge.pop., l.te, syst.	40 mg/Kg/d (nd)
	ge.pop., l.te, local	3.78 mg/Kg/d (nd)
Inhalative	worker industr., acute, syst.	55 mg/m ³ (nd)
	worker industr., acute, local	55 mg/m ³ (nd)
	worker industr., l.te., syst.	44 mg/m ³ (nd)
	worker industr., l.te., local	44 mg/m ³ (nd)
	ge.pop., acu., syst.	55 mg/m ³ (nd)
	ge.pop., acu., local	55 mg/m ³ (nd)
	ge.pop., l.te, syst.	22 mg/m ³ (nd)
	ge.pop., l.te, local	22 mg/m ³ (nd)

110-91-8 morpholine

Oral	ge.pop., l.te, syst.	0.3 mg/Kg (nd)
Dermal	worker industr., l.te., syst.	0.84 mg/Kg/d (nd)
Inhalative	worker industr., acute, local	72 mg/m ³ (nd)
	worker industr., l.te., local	36 mg/m ³ (nd)

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· PNECs	
8052-41-3 Stoddard solvent	
freshwater	0.14 mg/l (nd)
marine water	0.35 mg/l (nd)
sedim., dw, fre.wat.	1.14 mg/Kg (nd)
sedim., dw, mar.wat.	0.14 mg/Kg (nd)
110-91-8 morpholine	
freshwater	0.163 mg/l (nd)
marine water	0.016 mg/l (nd)
STP	10 mg/l (nd)
sedim., dw, fre.wat.	1.83 mg/Kg (nd)
sedim., dw, mar.wat.	0.183 mg/Kg (nd)
soil,dw	0.269 mg/Kg (nd)

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.

Do not inhale gases / fumes / aerosols.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Do not eat, drink or smoke while working.

· **Breathing equipment:**

Use breathing protection in case of insufficient ventilation.

Filter A/P2.

· **Protection of hands:**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

chemical protection gloves are suitable, which are tested according to EN 374

Check protective gloves prior to each use for their proper condition.

· **Material of gloves**

NBR: acrylonitrile-butadiene rubber

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** eye protection (EN 166)

· **Body protection:** Light weight protective clothing

· **Limitation and supervision of exposure into the environment**

Do not allow to enter the ground/soil.

Do not allow to enter drainage system, surface or ground water.

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SECTION 9: Physical and chemical properties· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**· **Form:**

Fluid

· **Colour:**

White

· **Smell:**

Weak, characteristic

· **Odour threshold:**

Not determined.

· **pH-value at 20 °C:**

8.4-9.2

· **Change in condition**· **Melting point/freezing point:**

Not determined

· **Initial boiling point and boiling range:**

100 °C

· **Flash point:**

64 °C

· **Inflammability (solid, gaseous)**

Not applicable.

· **Decomposition temperature:**

Not determined.

· **Self-inflammability:**

Product is not selfigniting.

· **Explosive properties:**

Product is not explosive.

· **Critical values for explosion:**· **Lower:**

0.8 Vol %

· **Upper:**

6 Vol %

· **Steam pressure:**

Not determined.

· **Density at 20 °C**0.975-0.995 g/cm³· **Relative density**

Not determined.

· **Vapour density**

Not determined.

· **Evaporation rate**

Not determined.

· **Solubility in / Miscibility with**· **Water:**

Partly miscible

· **Partition coefficient: n-octanol/water:**

Not determined.

· **Viscosity:**· **dynamic:**

Not determined.

· **kinematic at 40 °C:**>9,000 mm²/s· **9.2 Other information**

No further relevant information available.

SECTION 10: Stability and reactivity· **10.1 Reactivity** No further relevant information available.· **10.2 Chemical stability**· **Conditions to be avoided:** No decomposition if used and stored according to specifications.· **10.3 Possibility of hazardous reactions** No dangerous reactions known· **10.4 Conditions to avoid** Heat, flames and sparks.· **10.5 Incompatible materials:**

Strong oxidizers

Strong acids

· **10.6 Hazardous decomposition products:** None

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SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Oral	LD50	>15,000 mg/kg (rat) (OECD 423)
Dermal	LD50	>5,000 mg/kg (rabbit) (OECD 402)
Inhalative	LC0/4h	≥4.951 mg/L (rat) (OECD 403)

8042-47-5 white mineral oil (petroleum)

Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>2,000 mg/kg (rabbit) (OECD 402)

8052-41-3 Stoddard solvent

Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>3,000 mg/kg (rabbit) (OECD 402)
Inhalative	LC0/4h	>5.5 mg/L (rat) (OECD 403)

110-91-8 morpholine

Oral	LD50	1,900 mg/kg (rat) (OECD 401)
Dermal	LD50	500 mg/kg (rabbit) (OECD 402)

· **Primary irritant effect:**

· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

· **Serious eye damage/irritation**

Based on available data, the classification criteria are not met.

· **Respiratory or skin sensitisation**

Based on available data, the classification criteria are not met.

· **Additional toxicological information:**

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

· **Carcinogenicity** Based on available data, the classification criteria are not met.

· **Reproductive toxicity** Based on available data, the classification criteria are not met.

· **STOT-single exposure** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure**

May cause damage to the central nervous system through prolonged or repeated exposure.

Route of exposure: Inhalation.

· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

LL50/96h	>1,000 mg/L (fish) (OECD 203)
EL50/48h	>1,000 mg/L (daphnia) (OECD 202)
EL50/72h	>1,000 mg/L (algae) (OECD 201)
NOELR	100 mg/L /72h (algae) (OECD 201)

8042-47-5 white mineral oil (petroleum)

LL50/96h	>10,000 mg/L (fish) (OECD 203)
EL50/48h	>100 mg/L (daphnia) (OECD 202)

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8052-41-3 Stoddard solvent

LC50/96h	3.5 mg/l (daphnia) (EPA OPPTS 850.1020)
NOEC / 21d	0.1 mg/l (daphnia) (OECD 211)
EC50/96h	1.2 mg/L (algae) (OECD 201)
NOELR	0.76 mg/L (algae) (OECD 201)
EL50/21d	0.33 mg/L (daphnia) (OECD 211)

110-91-8 morpholine

EC50/21d	12.191 mg/L (daphnia) (OECD 211)
EC50/48h	44.5 mg/l (daphnia) (OECD 202)
LC50/96h	>100 mg/l (fish) (OECD 203)
NOEC / 21d	5 mg/l (daphnia) (OECD 211)
ErC50 / 72 h	64.63 mg/l (algae) (OECD 201)
NOEC / 48h	18.8 mg/l (daphnia) (OECD 202)
ErC10/72h	31.49 mg/L (algae) (OECD 201)

12.2 Persistence and degradability

hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Biodegradation 89.8 % /28d (nd) (OECD 301F; ISO 9408/ EEC 92/69/V, C.4-D)

8052-41-3 Stoddard solvent

Biodegradation >63 % /28d (nd) (OECD 301B; ISO/ 9439/ EEC 92/69/V, C.4-C)

110-91-8 morpholine

Biodegradation 93 % /25d (nd) (OECD 301 E)

12.3 Bioaccumulative potential

110-91-8 morpholine

Bloconcentration factor (BCF) ≤2.8 (nd)

12.4 Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

Avoid transfer into the environment.

Do not allow product to reach ground water, water bodies or sewage system.

Danger to drinking water if even small quantities leak into soil.

12.5 Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

· **Recommendation** Disposal must be made according to official regulations.

Uncleaned packagings:

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

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SECTION 14: Transport information

· 14.1 UN-Number · ADR, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	-
· UN "Model Regulation":	Void

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
 - Directive 2012/18/EU
 - Named dangerous substances - ANNEX I None of the ingredients is listed.
 - Information about limitation of use:
 - Employment restrictions concerning young persons must be observed.
 - Employment restrictions concerning pregnant and lactating women must be observed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
 - H226 Flammable liquid and vapour.
 - H302 Harmful if swallowed.
 - H304 May be fatal if swallowed and enters airways.
 - H311 Toxic in contact with skin.
 - H314 Causes severe skin burns and eye damage.
 - H315 Causes skin irritation.
 - H332 Harmful if inhaled.
 - H336 May cause drowsiness or dizziness.
 - H372 Causes damage to organs through prolonged or repeated exposure.
 - H412 Harmful to aquatic life with long lasting effects.

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods

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IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

Sources*(EC) 1272/2008: classification, labelling and packaging of substances and mixtures**(EC) 1907/2006: REACH**ADR/RID/ADN - IDMG - IATA: transport of dangerous goods by road, rail, inland waterway, with maritime vessels and for the air transport*** Data compared to the previous version altered.*

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