

**Trade name: RESILIT-S liquid**  
**Safety data sheet in accordance with 91/155/EEC**  
 Date of printing : 28.04.2003

**01. Identification**

01.01 Product details	
01.01.01. Trade name	RESILIT-S liquid
01.02. Identification of the manufacturer	
01.02.01. Address	ERKODENT Erich Kopp GmbH, Siemensstr. 3, D-72285 Pfalzgrafenweiler
01.02.02. Information provided by	Chemie
01.02.03. Telephone number	Tel.: (+49) (0) 7445 / 85 01 - 0, Fax: (+49) (0) 7445 / 20 92
01.02.04. Emergency telephone number :	

**02. Composition/information on ingredients**

02.01. Chemical characterization	Methacrylsäureester Liquid
02.02. Substance / product identification	
02.03. Hazardous ingredients	CAS-Nr.: 80-62-6, EINECS : 201-297-1 Methyl- methacrylat 75 < 100% Xi, F; R11, 37/38, 43
02.04. Additional information	

**03. Hazards possibilities**

03.01. Hazard designation	Irritant, Highly flammable
03.02. Particular information pertaining specific risk for human / environment	Highly flammable, Irritating to respiratory system and skin., May cause sensitization by skin contact.

**04. First aid measures**

04.01. General Information	Remove contaminated, soaked clothing immediately and dispose of safely., If individual is drowsy or unconscious place in recovery position (on left side, with head down).
04.02. First aid measures / inhalation.	Ensure supply of fresh air., In the event of symptoms take medical treatment.
04.03. First aid measures / skin contact.	In case of contact with skin wash off immediately with soap and water., Consult a doctor if skin irritation persists.
04.04. First aid measures / eye contact.	In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water., Begin with medical treatment.
04.05. First aid measures / ingestion..	Seek medical advice immediately., Turn a vomiting person lying on his back onto his side.
04.06. Advice to doctor	-

**05. Fire-fighting measures**

05.01. Suitable extinguishing media	foam dry powder carbon dioxide. water mist
05.02. Extinguishing media that must not be used for safety reasons	Full water jet
05.03. Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases.	In use, may form flammable/explosive vapour-air mixture.
05.04. Special protective equipment for firefighting	Use self-contained breathing apparatus.
05.05. Additional informations (chapter 5)	Cool endangered containers with water spray jet., Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

**06. Accidental release measures**

06.01. personal precautions.	Keep away sources of ignition., Avoid contact with skin, eyes and clothing., Ensure adequate ventilation., Use personal protective clothing.
06.02. environmental precautions.	Do not allow to enter drains or waterways., Do not

	discharge into the subsoil/soil.
06.03. methods for cleaning up/taking up.	Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr)., Dispose of absorbed material in accordance with the regulations.
06.04. Additional informations (chapter 6).	

## 07. Handling and storage

07.01. Handling	
07.01.01. Hints on safe handling.	Open and handle container with care., Provide good ventilation of working area (local exhaust ventilation if necessary).
07.01.02. Hints for protection against fire and explosion.	Keep away from sources of ignition - refrain from smoking.

07.02. Storage	
07.02.01. Requirements for storage rooms and vessels.	Store product in closed containers.
07.02.02. Hints on storage assembly.	-
07.02.03. Further information on storage conditions.	Keep container tightly closed, cool and dry., Protect from heat and direct sunlight., Protect from contamination.
07.02.04. Storage category	Highly flammable
07.02.05. Storage stability	-
07.02.06. Recommended storage temperature	-

## 08. Exposure controls/personal protection

08.01. Additional hints on technical system design.	See chapter 7; no measures exceeding the ones mentioned are necessary.
08.02. Ingredients with occupational exposure limits to be monitored	CAS: 80-62-6 Methylmethacrylat; MAK: MMA 50 ppm – 210 mg/m <sup>3</sup>

08.03. Personal protective equipment Personal protective equipment Persönliche Schutzausrüstung	
08.03.01. Respiratory protection	Short term: filter apparatus, filter AX
08.03.02. Hand protection	Synthetic rubber gloves
08.03.03. Eye protection	tightly fitting safety glasses
08.03.04. Skin protection	light protective clothing
08.03.05. General protective and hygiene measures	Do not eat, drink or smoke during work time., Keep separated from food-stuffs and feed-stocks., Remove soiled or soaked clothing immediately., Keep separated from food-stuffs and feed-stocks., Avoid contact with eyes and skin., Observe the usual precautions when handling chemicals.

## 09. Physical and chemical properties

09.01. Appearance.	
09.01.01. Form	Liquid
09.01.02. Colour	colourless
09.01.03. Odour	ester-like

09.02. Safety data	
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### Changes in physical state

Melting point	- 48	°C	
Boiling point	100	°C	
Flash point	10	°C	DIN 51755
Ignition temperature	430	°C	DIN 51794
self ignition			
explosion limits	2,1	Vol %	

Upper explosion limit	12,5	Vol %	
Vapour pressure			
	47	hPa	20 °C
Density			
	0,945	g/cm3	20 °C
solubility			
	partially miscible	g/l	20 °C
Soluble in			
Miscible with organic solvents in all proportions		g/l	
pH-Value			
	n.a.		
Viscosity			
	n.b.		

09.03. Other information ( chapter 9.)	-
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## 10. Stability and reactivity

10.01. Hazardous reactions	Reactions with impurities., Reactions with reducing agents., peroxides
10.02. Hazardous decomposition products	No decomposition if used as prescribed.
10.03. Thermal decomposition	Stable at ambient temperature.
10.04. Additional informations (chapter 10)	-

## 11. Toxicological information

11.01. Acute toxicity	
11.01.01. Acute oral toxicity	LD50 MMA > 5000 mg/kg rat
11.01.02. Acute dermal toxicity	-
11.01.03. Acute inhalational toxicity	LC50 MMA 7093 ppm/4h rat
11.02. Irritant/corrosive effects	
11.02.01. Irritant effect on skin	irritant
11.02.02. Irritant effect on eyes	irritant - risk of serious damage to eyes
11.03. Sensitization	Possibility of sensitization through skin contact.
11.04. Effects after repeated or prolonged exposition (subacute, subchronic, cronic)	The product can cause skin and eye irritation., Irritates the mucous membrane.
11.08. Other information (chapter 11.)	-
11.09. Experiences made in practice.	-
11.10. General remarks.	-

## 12. Ecological information

12.01. Data on elimination ( persistence and degradability) :	
12.01.01. Physico-chemical eliminability	-
12.01.02. Biodegradability	30,7 % (28 d) OECD 301 C, not readily degradable
12.02. Behaviour in environment compartments.	-
12.03. Ecotoxic effect	
12.03.01. Fish toxicity	(MMA) LC50: > 79 mg/l (OECD 203); NOEC: 40 mg/l (ISO 7346) Oncorhynchus mykiss (449 V,C1), 96 h EEC84
12.03.02. Daphnia toxicity	-
12.03.03. Algae toxicity	-
12.03.04. Bacteria toxicity	EC0: 100 mg/l MMA Pseudomonas putida
12.04. Further ecological information	Do not allow to enter soil, waterways or waste water canal.

## 13. Disposal considerations

13.01. Disposal considerations	
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13.01.01. Disposal / product	-
13.01.02. Disposal / contaminated packagings.	Completely emptied packagings can be given for recycling.
13.02. Waste code no. / name of waste (for Germany only)	07 01 04 The stated Waste Code Number(s) according to the European Waste Catalogue (EAK) is (are) considered as a recommendation. A definite setting (establishment) should be carried out in co-ordination with the Regional Waste Disposal Authority.

## 14. Transport information

14.01. Land transport ADR/RID	
14.01.01. Class	3 (F1)
14.01.02. Number/letter	-
14.01.03. Hazard number (Kemler-number)	339
14.01.04. UN number	1247
14.01.05. Technical name	METHYLMETHACRYLATE MONOMER, STABILISIERT
14.01.06. Remarks	VG/PG: II
14.02. Inland waterways transport ADN/ADNR	
14.02.01. Class	-
14.02.02. Number/letter	-
14.02.03. Category	-
14.02.04. Technical name	METHYLMETHACRYLATE MONOMER, STABILISIERT
14.02.05. Remarks	-
14.03. Marine transport IMDG/GGVSee	
14.03.01. Class	3
14.03.02. UN number	1247
14.03.03. page	3
14.03.04. EmS	F-E, S-D
14.03.05. MFAG	-
14.03.06. MARINE POLUTANT	-
14.03.07. Correct technical name	METHYLMETHACRYLATE MONOMER, STABILIZED
14.03.08. Remarks	PG/VG: II
14.04. Air transport ICAO/IATA	
14.04.01. Class	3
14.04.02. UN number	1247
14.04.03. page	3
14.04.04. Correct technical name	METHYLMETHACRYLATE MONOMER, STABILIZED
14.04.05. Remarks	PG/VG: II
14.05. Other information (chapter 14.)	-

## 15. Regulatory information

15.01. Labelling in accordance with GefStoffV/EC	
The product is classified and labelled in accordance with EC directives/German regulations on dangerous substances.	
15.01.02. Hazard symbols	Xi Irritant F Highly flammable
R phrases	R 11 Highly flammable R 37/38 Irritating to respiratory system and skin. R 43 May cause sensitization by skin contact.
S phrases	S 9 Keep container in a well-ventilated place. S 16 Keep away from sources of ignition --- No smoking.

	S 24	Avoid contact with skin.
	S 33	Take precautionary measures against static discharges.
	S 37	Wear suitable gloves.
	S 60	This material and its container must be disposed of as hazardous waste.

15.02. Other regulations	
15.02.01. Restriction of occupation.	-
15.02.02. Decree for case of interference / remarks (for Germany only).	-
15.02.03. Classification according to VbF / remarks (for Germany only).	A I
15.02.04. TA-Luft (Ger.)	Class: II 75-100% Class: III 2,5-10%
15.02.05. Water Hazard Class (Ger.)	1
15.02.06. Other regulations, restrictions and prohibition regulations (for Germany only)	-

## 16. Other information (chapter 16.).

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(n.a. = Not applicable; n.b.= not determined)

This information is based on our present state of knowledge. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application.