

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

1.1. Product identifier

Resilit-S Fluid

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 Pfalzgrafenweiler

Telephone: +49 7445 8501 0
Telefax: +49 7445 2092

Supplier (manufacturer/importer/only representative/downstream user/distributor)

ERKODENT Erich Kopp GmbH
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Information contact

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1.4. Emergency telephone number

ERKODENT Erich Kopp GmbH
Only available during office hours.

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008:
Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1/1A/1B, H317; STOT SE 3, H335

2.2. Label elements

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

Hazard pictograms:



Signal word:

GHS02, GHS07

Danger

Hazard statements:

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/.?/ equipment.
P303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P321 Specific treatment (see .? on this label).
P405 Store locked up.
P501 Dispose of contents/container to .?.

Hazardous component(s) for labelling

Methyl methacrylate; 1,4-Butandiol dimethacrylate

Special labelling of particular preparations:

none

2.3. Other hazards

none

SECTION 3: Composition / information on ingredients

3.1. Substances

Mixtures

3.2. Mixtures

Methyl methacrylate, monomer, stabilized (mixture)

Composition/information on ingredients

Substance:	EC-no.:	CAS-No.:	INDEX no.:	REACH-no.:	Concentration:	Classification: EC 1272/2008 (CLP):
Methyl methacrylate	201-297-1	80-62-6			75-100	Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1/1A/1B, H317; STOT SE 3, H335
1,4-Butandiol dimethacrylate	218-218-1	2082-81-7			2,5-10	Skin Sens. 1/1A/1B, H317

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: Remove contaminated clothing immediately and dispose off safely.

Following inhalation: In case of inhalation of aerosols/spray mist/splash spots: Consult physician. If unconscious place in recovery position and seek medical advice.

Following skin contact: After contact with skin, wash immediately with plenty of water and soap. Seek medical attention if problems persist.

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: Do NOT induce vomiting. Call a physician immediately.

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

Depression of the central nervous system. Causes skin irritation. May cause sensitisation especially in sensitive humans.

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

Let water be drunken in little sips (dilution effect).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Extinguishing powder. Carbon dioxide. alcohol resistant foam.

Unsuitable extinguishing media: Water.

5.2. Special hazards arising from the substance or mixture

Vapours may form explosive mixtures with air.

5.3. Advice for firefighters

General information

Use water spray jet to protect personnel and to cool endangered containers.

Special protective equipment for firefighters:

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

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.

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.

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

Protect against: Heat UV-radiation/sunlight

Precautions against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

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.

Storage class: 3

7.3. Specific end use(s)

Observe instructions for use.

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/m ³]	Limitation of exposure peaks:	Remark:
Methyl methacrylate	80-62-6	EN	TRGS 900	50	210	2(l)	DFG, EU, Y

Substance with a common (EC) occupational exposure limit value

Substance:	CAS-No.:		Source :	Occupational exposure limit value:[ppm]	Occupational exposure limit value:[mg/m ³]	Limitation of exposure peaks:	Remark:

DNEL-/PNEC-values

DNEL value

Substance:	CAS-No.:	DNEL/DMEL

PNEC Value

Substance:	CAS-No.:	PNEC

Remark:

none

8.2. Exposure controls

Occupational exposure controls

none

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

Suitable gloves type: Butyl rubber. liquid-tight Solvent/Thinner.

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: colourless
Odour: like: ester
Odour threshold: not determined

Safety relevant basis data

	Parameter	Value	Unit	Remark
pH:				not determined
Melting point/freezing point:		-48	°C	
Initial boiling point and boiling range:		100	°C	
Flash point:		10	°C	
Evaporation rate:				not determined
Flammability (solid, gas):		430	°C	
Explosive properties:				not explosive. Vapours can form explosive mixtures with air.
Lower flammability or explosive limits:		2,1	Vol-%	
Upper flammability or explosive limits:		12,5	Vol-%	
Vapour pressure:	(at 20 °C)	47	hPa	
Vapour density:				not determined
Relative density:				
Density:	(at 20 °C)	0,945	g/cm ³	
Solubility(ies):	:			not determined
Water solubility:				slightly soluble
Fat solubility:				not determined
Partition coefficient: n-octanol/water:				not determined
Auto-ignition temperature:				none Risk of selfignition.
Decomposition temperature:				not determined
Viscosity:				not determined
Oxidising properties:				not determined
Solvent content:	(org.)	0,0	%	

9.2. Other information

none

SECTION 10: Stability and reactivity

10.1. Reactivity

Polymerization.

10.2. Chemical stability

none slow decomposition spontaneous decomposition

10.3. Possibility of hazardous reactions

Can polymerise exothermically if heated, exposed to air, sunlight or by addition of free radical initiators.

10.4. Conditions to avoid

Keep away from heat.

10.5. Incompatible materials

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

10.6. Hazardous decomposition products

none Hazardous decomposition products

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
Methyl methacrylate	80-62-6	LD50 oral (rat) > 5000 mg/kg LC50 inh. (rat) (4 h) 7093 ppm
1,4-Butandiol dimethacrylate	2082-81-7	LD50 oral (rat) > 5000 mg/kg

Skin corrosion/irritation

Irritating to skin.

Serious eye damage/irritation

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

Respiratory or skin sensitisation

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

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

Germ cell mutagenicity

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

May cause respiratory irritation.

STOT-repeated exposure

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

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

The information about ecology refers to the main components.

Ecotoxicity

Substance:	CAS-No.:	Ecotoxicity
Methyl methacrylate	80-62-6	LC50 fish (96 h) > 79 mg/l NOEC/NOEL Daphnia (Daphnia magna) 21 d 40 mg/l

12.2. Persistence and degradability

Theoretical oxygen demand (ThOD): Degradation rate (%): not readily biodegradable (according to OECD criteria)

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

not applicable

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal/Product:

Dispose of waste according to applicable legislation. Send to a physico-chemical treatment facility under observation of official regulations. Send to a hazardous waste incinerator facility under observation of official regulations. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Dispose of waste according to applicable legislation.

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.: 1247

14.2. UN proper shipping name

ADR / RID

Methylmethacrylat, monomer, stabilisiert

--

IMDG / ICAO-TI / IATA-DGR

Methyl methacrylate, monomer, stabilized

--

14.3. Transport hazard class(es)

Hazard label(s):: 3

Classification Code:

3 (F1)



14.4. Packing group

Packing Group: II

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: 2

Special provisions: --

Tunnel restriction code: D/E

Limited quantity (LQ): 1000 ml

Sea transport (IMDG)

EmS-No: F-E,S-D

Special provisions: --

Limited quantity (LQ): 1000 ml

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

Remark: none

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

According to directive 94/33/EC, juveniles are only allowed to handle this product as long as all effects of dangerous substances are prevented. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Other regulations, restrictions and prohibition regulations

Betriebssicherheitsverordnung (BetrSichV) Highly flammable

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.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

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

none

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 Krebserzeugend, 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 Kurzzeitexposition (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)