

Printing date 03/01/2022 Reviewed on 03/01/2022

1: Identification

· 1.1 Product identifier

· Trade name: SILIKAL R 71

· Article number: R 71

· Application of the substance / the preparation: Reaction resin

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Silikal America 609-B Fertilla Street Carrollton, GA 30117 Tel.: 770.830.1404 Fax.: 777.830.9213 info@silikalamerica.com

· Information department: Silikal America

• 1.4 Emergency telephone number: INFOTRAC 1-800-535-5053

2: Hazard(s) identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

- · 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008

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

· Hazard pictograms





GHS02 GHS07

- · Signal word Danger
- · Hazard-determining components of labeling:

methyl methacrylate

Hazard statements

H225 Highly flammable liquid and vapor.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P280 Wear protective gloves / eye protection / face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

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Safety Data Sheet acc. to OSHA HCS

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· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 1Fire = 3Reactivity = 0

· HMIS-ratings (scale 0 - 4)



1 Health = 1 Fire = 3

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable. · vPvB: Not applicable.

3: Composition/information on ingredients

- · 3.2 Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.
- · Dangerous components:

80-62-6 methyl methacrylate

50-100%

🏵 Flam. Liq. 2, H225; 🕦 Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3,

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

4: First-aid measures

- · 4.1 Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · **After inhalation:** Supply fresh air and to be sure call for a doctor.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

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

- · After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a 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.

5: Fire-fighting measures

- 5.1 Extinguishing media
- · Suitable extinguishing agents:

Foam

Sand

CO2, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 5.2 Special hazards arising from the substance or mixture

Exothermic polymerization.

In case of fire, the following can be released:

Hydrocarbons

Carbon monoxide and carbon dioxide

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- 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.
- · Additional information Cool endangered receptacles with water spray.

6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective clothing.

Keep away from ignition sources

Use respiratory protective device against the effects of fumes/dust/aerosol.

- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7: Handling and storage

- 7.1 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Store in cool, dry conditions in well sealed receptacles.

Do not allow to enter sewers/ surface or ground water.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Store receptacle in a well ventilated area.

Protect from heat and direct sunlight.

- · Maximum storage temperature: 25 °C
- · 7.3 Specific end use(s) No further relevant information available.

8: Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · 8.1 Control parameters

80-62-6 methyl methacrylate

PEL Long-term value: 410 mg/m³, 100 ppm

REL Long-term value: 410 mg/m³, 100 ppm

TLV Short-term value: 410 mg/m³, 100 ppm Long-term value: 205 mg/m³, 50 ppm

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- · Additional information: The lists that were valid during the creation were used as basis.
- · 8.2 Exposure controls
- Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment:

Workplace must be properly ventilated and monitored to maintain air quality below the TLV.

Organic vapour respirators are required only when levels meet or exceed these values. A self contained breathing apparatus is required in confined spaces.

Filter AX or Organic Vapour Cartridge.

- · Recommended filter device for short term use: Filter A
- · Protection of hands:



Protective gloves

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

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation (EN 374)

- · Material of gloves Butyl rubber, BR
- 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.

For the mixture of chemicals mentioned below the penetration time has to be at least 60 minutes (Permeation according to EN 374 Part 3: Level 3).

Eye protection:



Form:

Tightly sealed goggles

· Body protection: Protective work clothing

9: Physical and chemical properties

• 9.1 Information on basic physical and chemical properties
General Information
· Appearance:

Color: Dark blue · Odor: Unpleasant · Odor threshold: Not determined.

· pH-value: Not determined.

· Change in condition

· Ignition temperature:

Melting point/Melting range: Undetermined. Boiling point/Boiling range: 100 °C (212 °F) · Flash point: 10 °C (50 °F) · Flammability (solid, gaseous): Not applicable.

430 °C (806 °F)

Fluid

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· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits: Lower: Upper:	2.1 Vol % 12.5 Vol %
· Vapor pressure at 20 °C (68 °F):	38.7 hPa (29 mm Hg)
 Density at 20 °C (68 °F): Relative density Vapor density Evaporation rate 	1 g/cm³ (8.345 lbs/gal) Not determined. Not determined. Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water): Not determined.	
 Viscosity: Dynamic at 20 °C (68 °F): Kinematic: 9.2 Other information 	70 mPas Not determined. No further relevant information available.

10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

Keep away from heat and direct sunlight.

No decomposition if used according to specifications.

- 10.3 Possibility of hazardous reactions Exothermic polymerization.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: Reacts with peroxides and other radical forming substances.
- · 10.6 Hazardous decomposition products:

Hydrocarbons

Carbon monoxide and carbon dioxide

· Additional information: Do not allow to enter sewers/ surface or ground water.

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:			
80-62-6 methyl methacrylate			
Oral	LD50	> 5000 mg/kg (rat)	
Dermal	LD50	> 5000 mg/kg (kan)	
Inhalative	LC50 (4h)	29.8 mg/l (rat)	

- · Primary irritant effect:
- on the skin:

Causes skin irritation.

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

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· Sensitization:

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- May cause an allergic skin reaction.
- · Additional toxicological information:
- · Carcinogenic categories

· IARC (International Agency for Research on Cancer)		
80-62-6	methyl methacrylate	3
9011-14-7	Polymethylmethacrylat	3
· NTP (National Toxicology Program)		
None of the ingredients is listed.		
· OSHA-Ca (Occupational Safety & Health Administration)		

None of the ingredients is listed.

12: Ecological information

· 12.1 Toxicity

· Aquatic toxi	city:	
80-62-6 methyl methacrylate		
EC50 (48h)	69 mg/l (Daphnia magna)	
EC50 (96h)	170 mg/l (Selenastrum capricornutum)	
EC3 (16h)	100 mg/l (Pseudomonas pudita)	
NOEC	37 mg/l (Daphnia magna)	
NOEC (72h)	> 110 mg/l (Selenastrum capricornutum)	
LC50 (96h)	> 79 mg/l (fish)	

- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Must be specially treated adhering to official regulations.

- · Uncleaned packagings:
- · Recommendation:

Packaging can be reused or recycled after cleaning.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

Disposal must be made according to official regulations.

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· Recommended cleansing agent: Acetone, ethylacetate

14: Transport information	
· 14.1 UN-Number · DOT, ADR, IMDG, IATA	UN1866
· 14.2 UN proper shipping name · DOT, IATA · ADR · IMDG	Resin solution 1866 Resin solution RESIN SOLUTION
· 14.3 Transport hazard class(es)	
· DOT	
FLAMMAELE DOUD	
· Class · Label	3 Flammable liquids 3
· ADR, IMDG, IATA	
· Class · Label	3 Flammable liquids 3
· 14.4 Packing group · DOT, ADR, IMDG, IATA	II
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler): · EMS Number:	33 F-E,S-E
· Stowage Category	В
 14.7 Transport in bulk according to Annex of MARPOL73/78 and the IBC Code 	Not applicable.
· Transport/Additional information:	
· ADR · Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1866 RESIN SOLUTION, 3, II

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15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

80-62-6 methyl methacrylate

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

80-62-6 methyl methacrylate

E, NL

· TLV (Threshold Limit Value established by ACGIH)

80-62-6 methyl methacrylate

A4

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· AGW (German Workplace Threshold Value)

80-62-6 methyl methacrylate

- · National regulations:
- · Technical instructions (air):

Class	Share in %
ll ll	50-100

- · Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Silikal America
- · Date of preparation / last revision 04/27/2016 / 7
- · Abbreviations and acronyms:

Flam. Liq. 2: Flammable liquids, Hazard Category 2 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· * Data compared to the previous version altered.