




1 Identification of substance

- **Product details**
- **Trade name:** SILIKAL Additive M
- **Article number:** Add M Eng
- **Application of the substance / the preparation:**
Additive
Coating material
- **Manufacturer/Supplier:**
Silikal America
609-B Fertilla Street
Carrolton, GA 30117
Tel.: 770.830.1404
Fax.: 777.830.9213
info@silikalamerica.com
- **Information department:** Silikal America
- **Emergency information:** INFOTRAC 1-800-535-5053

2 Composition/Data on components

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

52628-03-2	Phosphoric acid esters	 C; R 34	50-100%
80-62-6	methyl methacrylate	 Xi,  F; R 11-37/38-43	25-50%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- **Hazard description:**



C Corrosive
F Highly flammable

- **Information pertaining to particular dangers for man and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 11 Highly flammable.

R 34 Causes burns.

R 43 May cause sensitisation by skin contact.

- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **NFPA ratings (scale 0 - 4)**



Health = 3
Fire = 3
Reactivity = 0

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· HMIS-ratings (scale 0 - 4)

HEALTH	3	Health = 3
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

4 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.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.

5 Fire fighting measures

- **Suitable extinguishing agents:**
Foam
Fire-extinguishing powder
Carbon dioxide
- **For safety reasons unsuitable extinguishing agents:** Water
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **Person-related safety precautions:**
Ensure adequate ventilation
Wear protective clothing.
Keep away from ignition sources
Use respiratory protective device against the effects of fumes/dust/aerosol.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Keep receptacles tightly sealed.
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.
Use explosion-proof apparatus / fittings and spark-proof tools.
Fumes can combine with air to form an explosive mixture.

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- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Store in cool, dry conditions in well sealed receptacles.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:**
Store receptacle in a well ventilated area.
Protect from heat and direct sunlight.
- **Maximum storage temperature:** 25°C

8 Exposure controls and personal protection

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

- **Components with limit values that require monitoring at the workplace:**

80-62-6 methyl methacrylate

PEL	410 mg/m ³ , 100 ppm
REL	410 mg/m ³ , 100 ppm
TLV	Short-term value: 410 mg/m ³ , 100 ppm Long-term value: 205 mg/m ³ , 50 ppm
SEN	

- **Additional information:** The lists that were valid during the creation were used as basis.
- **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.
- **Protection of hands:**



Protective gloves

- **Material of gloves** Nitrile rubber, NBR
- **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:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **General Information**

Form: Fluid

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Color:	Yellow tint
Odor:	Characteristic
· Change in condition	
Melting point/Melting range:	< 0°C (< 32°F)
Boiling point/Boiling range:	100°C (212°F)
· Flash point:	10°C (50°F)
· Ignition temperature:	430°C (806°F)
· 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:	2.1 Vol %
Upper:	12.5 Vol %
· Vapor pressure at 20°C (68°F):	38.7 hPa (29 mm Hg)
· Density at 20°C (68°F):	1.21 g/cm ³
· Solubility in / Miscibility with	
Water at 20°C (68°F):	40 g/l
· Viscosity:	
Dynamic at 20°C (68°F):	55 mPas
· Solvent content:	
Organic solvents:	0.0 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Materials to be avoided:**
Reacts with peroxides and other radical forming substances.
Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.
- **Dangerous reactions:**
Exothermic polymerization.
Reacts with acids, alkalis and oxidizing agents.
- **Dangerous products of decomposition:** No dangerous decomposition products known.
- **Additional information:** Do not allow to enter sewers/ surface or ground water.

11 Toxicological information

- **Acute toxicity:**

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

52628-03-2 Phosphoric acid esters

Oral | LD50 | > 2000 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Corrosive

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Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

- **Ecotoxic effects:**

- **Acquatic toxicity:**

52628-03-2 Phosphoric acid esters

EC50 (48h) > 100 mg/l (Daphnia magna)

LC50 (96h) > 100 mg/l (fish)

- **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.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

13 Disposal considerations

- **Product:**

- **Recommendation:**

Must be specially treated adhering to official regulations.

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

- **Uncleaned packagings:**

- **Recommendation:**

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Non contaminated packagings can be used for recycling.

14 Transport information

- **DOT regulations:**



- **Hazard class:**

3

- **Identification number:**

UN2924

- **Packing group:**

II

- **Proper shipping name (technical name):** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED, Phosphoric acid esters)

- **Label**

3+8

- **Land transport ADR/RID (cross-border):**



- **ADR/RID class:**

3 Flammable liquids

- **Danger code (Kemler):**

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· **UN-Number:** 2924
 · **Packaging group:** II
 · **Description of goods:** 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED, Phosphoric acid esters)

· **Maritime transport IMDG:**

· **IMDG Class:** 3
 · **UN Number:** 2924
 · **Label:** 3+8
 · **Packaging group:** II
 · **EMS Number:** F-E,S-C
 · **Marine pollutant:** No
 · **Proper shipping name:** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED, Phosphoric acid esters)

· **Air transport ICAO-TI and IATA-DGR:**

· **ICAO/IATA Class:** 3
 · **UN/ID Number:** 2924
 · **Label:** 3+8
 · **Packaging group:** II
 · **Proper shipping name:** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED, Phosphoric acid esters)

15 Regulations

· **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.

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- **Cancerogenity categories**

- **EPA (Environmental Protection Agency)**

80-62-6	methyl methacrylate	NL
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- **IARC (International Agency for Research on Cancer)**

80-62-6	methyl methacrylate	3
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

80-62-6	methyl methacrylate	A4
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- **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.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **AGW (German Workplace Threshold Value)**

80-62-6	methyl methacrylate
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- **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

- **Hazard symbols:**

C Corrosive
F Highly flammable

- **Hazard-determining components of labelling:**

methyl methacrylate

- **Risk phrases:**

11 Highly flammable.
34 Causes burns.
43 May cause sensitisation by skin contact.

- **Safety phrases:**

24 Avoid contact with skin.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

- **National regulations:**

- **Technical instructions (air):**

Class	Share in %
NK	25-50

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

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 MSDS:** Silikal America
- *** Data compared to the previous version altered.**