

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

Product identifier

- Trade name: **Marble Filler Super**
- Article number: 10714, 10732
- Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the preparation: Acrylic resin

Details of the supplier of the safety data sheet







- Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
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Reachable during the following office hours:
Monday – Thursday from 07:30 a.m. to 16:30 p.m.
Friday from 07:30 a.m. to 13:30 p.m.

2 Composition/information on ingredients

Chemical characterization: Substances

- CAS No. Description: 80-62-6 methyl methacrylate
- Identification number(s)
- EINECS Number: 201-297-1
- Index number: 607-035-00-6
- Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

CAS: 80-62-6 EINECS: 201-297-1 Index number: 607-035-00-6	methyl methacrylate  Xi R37/38-43;  F R11  H225;  H315; H317; H335	50-100%
CAS: 38668-48-3 EINECS: 254-075-1	1,1'-(p-tolylimino)dipropan-2-ol  T R25 R52/53  H300; H402; H412	<1%

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

3 Hazards identification

Classification of the substance or mixture



GHS02 Flame

H225 Highly flammable liquid and vapour.



GHS07

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H303 May be harmful if swallowed.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Irritant

Irritating to respiratory system and skin. May cause sensitization by skin contact.



Highly flammable

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Highly flammable.

· Information concerning particular hazards for human and environment:

Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided.

Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.

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.

· Classification system:

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

· **Label elements**

· Hazard-determining components of labelling:

methyl methacrylate

· Labelling according to EU guidelines:

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

· Code letter and hazard designation of product:



Xi Irritant
F Highly flammable

· Hazard-determining components of labelling:

methyl methacrylate

· Risk phrases:

Highly flammable.
Irritating to respiratory system and skin.
May cause sensitization by skin contact.

· Safety phrases:

Keep out of the reach of children.
Keep away from sources of ignition - No smoking.
Do not breathe fumes
Avoid contact with skin and eyes.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
Take precautionary measures against static discharges.
Wear suitable protective clothing, gloves and eye/face protection.
In case of insufficient ventilation, wear suitable respiratory equipment.
If swallowed, seek medical advice immediately and show this container or label.
Use only in well-ventilated areas.
If swallowed, rinse mouth with water (only if the person is conscious)

· **Classification system:**

· NFPA ratings (scale 0 - 4)



Health = 1
Fire = 3
Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 1
Fire = 3
Reactivity = 0

· **Other hazards**

· Results of PBT and vPvB assessment

· PBT: Not applicable.

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· vPvB: Not applicable.

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4 First aid measures

· **Description of first aid measures**

- General information: Take affected persons out into the fresh air. Position and transport stably on side. 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: If skin irritation continues, consult a doctor. Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor: Methylmethacrylate (MMA): Inhalation, swallowing or dermal incorporation may cause health damages. Irritates respiratory tract, digestive system, eyes and skin: e.g., cough, breathlessness, eye burning and lacrimation. Temporary impairment like headache, nausea, apporexia may occur. May cause health damages like gastritis, blood count changes, cerebral disturbance, blood pressure reduction. At higher concentration levels respiratory arrest und circulatory arrest may occur. May provoke allergic skin reactions. Sensitized users can react towards very low concentrations of MMA, and should avoid any further contact with this chemical.
- Most important symptoms and effects, both acute and delayed Breathing difficulty
Coughing
Nausea
Allergic reactions
Danger of impaired breathing.
- Danger
- Indication of any immediate medical attention and special treatment needed If swallowed, gastric irrigation with added, activated carbon.

5 Firefighting measures

- **Extinguishing media**
- Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- **Special hazards arising from the substance or mixture** Formation of toxic gases is possible during heating or in case of fire. In case of fire, the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NOx)
In certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
Hydrogen cyanide (HCN)
- **Advice for firefighters**
- Protective equipment: Wear self-contained respiratory protective device. Do not inhale explosion gases or combustion gases. Wear fully protective suit.
- **Additional information** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation
Keep away from ignition sources
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:

Do not allow product to reach sewage system or any water course.
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Dispose of the collected material according to regulations.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.

· 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

· Handling:

· Precautions for safe handling

Keep away from heat and direct sunlight.
Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
Use only in well ventilated areas.
Ensure good ventilation/exhaustion at the workplace.

· Information about protection against explosions and fires:

Fumes can combine with air to form an explosive mixture.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

· Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

Prevent any seepage into the ground.
Store only in the original receptacle.
Store in a cool location.

· Information about storage in one common storage facility:

Store away from oxidizing agents.
Store away from foodstuffs.

· Further information about storage conditions:

Store receptacle in a well ventilated area.
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

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8 Exposure controls/personal protection

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

· **Control parameters**

· 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.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Do not eat, drink, smoke or sniff while working.
Use skin protection cream for skin protection.
Clean skin thoroughly immediately after handling the product.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.

· **Breathing equipment:**

Avoid contact with the eyes and skin.
Suitable respiratory protective device recommended.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**

Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.
Akemi skin protection agent recommendation for preventive skin shelter without use of protective gloves:
ARRETIL (<http://www.stoko.com>)
Akemi skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:
STOKO EMULSION (<http://www.stoko.com>)
Akemi skin protection recommendation for skin cleaning after product handling:
SLIG SPEZIAL (<http://www.stoko.com>)
Akemi skin protection agent recommendation for skin aftercare:
STOKO VITAN (<http://www.stoko.com>)
The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.
This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).

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Protective gloves

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

· Material of gloves

Butyl rubber, BR

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

Value for the permeation: Level ≥ 2 , 60 min

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

· For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR

Butoject (KCL, Art No. 897, 898)

· As protection from splashes gloves made of the following materials are suitable:

Butyl rubber, BR

Butoject (KCL, Art No. 897, 898)

Fluorocarbon rubber (Viton)

Vitoject (KCL, Art No. 890)

· Not suitable are gloves made of the following materials:

Nitrile rubber, NBR

Leather gloves

Strong gloves

· Eye protection:



Tightly sealed goggles

· Body protection:

Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:

Fluid

Color:

Colorless

· Odor:

Characteristic

· pH-value:

Not applicable

· Change in condition

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

101°C (214°F)

· Flash point:

10°C (50°F)

· Ignition temperature:

430°C (806°F)

· Auto igniting:

Product is not selfigniting.

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· <u>Danger of explosion:</u>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· <u>Explosion limits:</u>	
<u>Lower:</u>	2.1 Vol %
<u>Upper:</u>	12.5 Vol %
· <u>Vapor pressure at 20°C (68°F):</u>	47 hPa (35 mm Hg)
· <u>Density at 20°C (68°F):</u>	1.02 g/cm ³ (8.512 lbs/gal)
· <u>Solubility in / Miscibility with Water at 20°C (68°F):</u>	16 g/l
· <u>Viscosity:</u>	
<u>Dynamic:</u>	Not determined.
<u>Kinematic at 20°C (68°F):</u>	70 s (DIN 53211/4)
· <u>Solvent content:</u>	
<u>Organic solvents:</u>	0.0 %

10 Stability and reactivity· **Reactivity**· Chemical stability· Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

· **Possibility of hazardous reactions**

Exothermic polymerization.

Reacts with peroxides and other radical forming substances.

Reacts with strong oxidizing agents.

· **Hazardous decomposition products:**

No dangerous decomposition products known.

11 Toxicological information· **Information on toxicological effects**· Acute toxicity:· Primary irritant effect:· on the skin:

Irritant to skin and mucous membranes.

· on the eye:

No irritating effect.

· Sensitization:

Sensitization possible through skin contact.

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

12 Ecological information· **Toxicity**· Acquatic toxicity:

No further relevant information available.

· **Additional ecological information:**· General notes:

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

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

· **Results of PBT and vPvB assessment**· PBT:

Not applicable.

· vPvB:

Not applicable.

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13 Disposal considerations

Waste treatment methods

Recommendation: 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.

Recommended cleansing agent: Alcohol
acetone

14 Transport information

DOT regulations:



Hazard class: 3
Identification number: UN1866
Packing group: III
Proper shipping name (technical name): RESIN SOLUTION, mixture
Label: 3

Land transport ADR/RID (cross-border):



ADR/RID class: 3 (F1) Flammable liquids
Danger code (Kemler): 33
UN-Number: 1866
Packaging group: III
UN proper shipping name: 1866 RESIN SOLUTION, mixture, special provision 640H

Maritime transport IMDG:



IMDG Class: 3
UN Number: 1866
Label: 3
Packaging group: III
EMS Number: F-E,S-E
Marine pollutant: No
Propper shipping name: RESIN SOLUTION, mixture

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 3
UN/ID Number: 1866

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· Label 3
 · Packaging group: III
 · Propper shipping name: RESIN SOLUTION, mixture

· **UN "Model Regulation":** UN1866, RESIN SOLUTION, mixture, 3, III
 · **Special precautions for user** Warning: Flammable liquids

15 Regulatory information

· **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:

38668-48-3 1,1'-(p-tolylimino)dipropan-2-ol

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

80-62-6 methyl methacrylate NL

· IARC (International Agency for Research on Cancer)

80-62-6 methyl methacrylate 3

· NTP (National Toxicology Program)

None of the ingredients is listed.

· 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.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Hazard-determining components of labelling:

methyl methacrylate

· Product related hazard informations:

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

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· Hazard symbols:

Xi Irritant
F Highly flammable

· Hazard-determining components of labelling:

methyl methacrylate

· Risk phrases:

Highly flammable.
Irritating to respiratory system and skin.
May cause sensitization by skin contact.

· Safety phrases:

Keep out of the reach of children.
Keep away from sources of ignition - No smoking.
Do not breathe fumes
Avoid contact with skin and eyes.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
Take precautionary measures against static discharges.
Wear suitable protective clothing, gloves and eye/face protection.
In case of insufficient ventilation, wear suitable respiratory equipment.
If swallowed, seek medical advice immediately and show this container or label.
Use only in well-ventilated areas.
If swallowed, rinse mouth with water (only if the person is conscious)

· National regulations:

· Information about limitation of use: Employment restrictions concerning young persons must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.

· Water hazard class:

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

· VOC USA

The VOC of the materials was determined in accordance with procedures outlined in EPA Method 24, "Determination of Volatile Matter, Water Content, Volume Solid of Surface Coatings". The VOC was calculated using the equations referenced in ASTM D 3960, "Determination of Volatile Organic Compound (VOC) Content of Paints and Related Coatings".
0.0 g/l

· **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 MSDS:**

Laboratory

· **Contact:**

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@mail E.Hake@akemi.de

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization

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Material Safety Data Sheet
acc. to ISO/DIS 11014



Printing date 02/10/2011

Reviewed on 02/10/2011

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ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

USA