

Printing date 12/06/2005

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**1 Identification of substance**· Product details

- Trade name: **Marble Filler 1000 Transparent extra-liquid**
- Article number: 10718
- Application of the substance / the preparation Polyester resin
- Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH      Tel. +49(0)911-642960  
Lechstrasse 28      Fax. +49(0)911-644456  
D 90451 Nürnberg      e-mail info@akemi.de
- Information department: Laboratory

**2 Composition/Data on components**· Chemical characterization

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

· Dangerous components:

CAS: 100-42-5	styrene	25-50%
EINECS: 202-851-5	Xn; R 10-20-36/38	
EU Number: 601-026-00-0		

CAS: 38668-48-3	1,1'-(p-tolylimino)dipropan-2-ol	<1%
EINECS: 254-075-1	T; R 25-52/53	

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

**3 Hazards identification**

- Hazard description: Xn Harmful
- 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.  
Flammable.  
Harmful by inhalation.  
Irritating to eyes and skin.
- 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 = 2  
Fire = 3  
Reactivity = 0
- HMIS-ratings (scale 0 - 4) Health = 2  
Fire = 3  
Reactivity = 0

**4 First aid measures**

- General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Clean with water and soap. If possible, also wash with polyethylene glycol 400.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: Do not induce vomiting; immediately call for medical help.
- Information for doctor:
- The following symptoms may occur: Headache  
Dizziness  
Dizziness

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## 5 Fire fighting measures

- Suitable extinguishing agents: CO<sub>2</sub>, 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 caused by the material, its products of combustion or resulting gases: In case of fire, the following can be released:  
Carbon monoxide (CO)  
Formation of toxic gases is possible during heating or in case of fire.
- Protective equipment: Mount respiratory protective device.
- Additional information Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## 6 Accidental release measures

- Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
- 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: Ensure good ventilation/exhaustion at the workplace.
- Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.
- Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Protect from heat and direct sunlight.  
Store in cool, dry conditions in well sealed receptacles.

## 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:
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- 100-42-5 styrene**
- PEL Short-term value: C 200,600\* ppm  
Long-term value: 100 ppm  
\*5-min peak in any 3 hrs
- REL Short-term value: 425 mg/m<sup>3</sup>, 100 ppm  
Long-term value: 215 mg/m<sup>3</sup>, 50 ppm
- TLV Short-term value: 170 mg/m<sup>3</sup>, 40 ppm  
Long-term value: 85 mg/m<sup>3</sup>, 20 ppm  
BEI
- 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.

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- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>· <u>Breathing equipment:</u></li> <li>· <u>Protection of hands:</u></li> <li>· <u>Material of gloves</u></li> <li>· <u>Penetration time of glove material</u></li> <li>· <u>Eye protection:</u></li> <li>· <u>Body protection:</u></li> </ul> | <p>Wash hands before breaks and at the end of work.<br/>Avoid contact with the eyes and skin.<br/>Use suitable respiratory protective device in case of insufficient ventilation.<br/>Filter AX<br/>Protective gloves<br/>Fluorocarbon rubber (Viton)<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.<br/>The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.<br/>Tightly sealed goggles<br/>Protective work clothing</p> |
|---|--|

## 9 Physical and chemical properties

- General Information

<u>Form:</u>	Fluid
<u>Color:</u>	Yellow
<u>Odor:</u>	Specific type
- Change in condition

<u>Melting point/Melting range:</u>	Undetermined.
<u>Boiling point/Boiling range:</u>	Undetermined.
- Flash point: 32°C (90°F)
- Ignition temperature: 480°C (896°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:

<u>Lower:</u>	1.2 Vol %
<u>Upper:</u>	8.9 Vol %
- Vapor pressure at 20°C (68°F): 6 hPa (5 mm Hg)
- Density at 20°C (68°F): ~ 1.07 g/cm<sup>3</sup>
- Solubility in / Miscibility with

<u>Water:</u>	Not miscible or difficult to mix.
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- Viscosity:

<u>Dynamic at 20°C (68°F):</u>	200 - 300 mPas
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## 10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Dangerous reactions Exothermic polymerization.  
Reacts with peroxides and other radical forming substances.
- Dangerous products of decomposition: No dangerous decomposition products known.

## 11 Toxicological information

- Acute toxicity:
- LD/LC50 values that are relevant for classification:


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**100-42-5 styrene**  
Oral LD50 5000 mg/kg (rat)  
Inhalative LC50/4 h 24 mg/l (rat)
- Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.

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- Sensitization: No sensitizing effects known.
- Additional toxicological information: The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant

**12 Ecological information**

- General notes: Do not allow product to reach ground water, water course or sewage system.  
Water hazard class 2 (Self-assessment): hazardous for water

**13 Disposal considerations**

- Product:
- Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.  
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

**14 Transport information**

- DOT regulations:
- Hazard class: 3
- Identification number: UN3269
- Packing group: III
- Proper shipping name (technical name): POLYESTER RESIN KIT
- Label: 3
- Land transport ADR/RID (cross-border):
- ADR/RID class: 3 (F1) Flammable liquids
- Danger code (Kemler): 30
- UN-Number: 3269
- Packaging group: III
- Description of goods: 3269 POLYESTER RESIN KIT
- Remarks: Without hardener component: no dangerous goods < 450 l
- Maritime transport IMDG:
- IMDG Class: 3
- UN Number: 3269
- Label: 3
- Packaging group: III
- EMS Number: F-E,S-D
- Marine pollutant: No
- Proper shipping name: POLYESTER RESIN KIT
- Remarks: Without hardener component: no dangerous goods < 30 l
- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: 3
- UN/ID Number: 3269
- Label: 3
- Packaging group: III
- Proper shipping name: POLYESTER RESIN KIT
- Remarks: Without hardener component: 3/III UN 1866 Resin Solution

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**\* 15 Regulations**

- Sara
- Section 355 (extremely hazardous substances):  
None of the ingredient is listed.
- Section 313 (Specific toxic chemical listings):  
100-42-5 styrene  
  
85-44-9 phthalic anhydride
- 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)  
None of the ingredients is listed.
- IARC (International Agency for Research on Cancer)  
100-42-5 styrene: 2B
- NTP (National Toxicology Program)  
None of the ingredients is listed.
- TLV (Threshold Limit Value established by ACGIH)  
100-42-5 styrene: A4  
  
85-44-9 phthalic anhydride: A4
- MAK (German Maximum Workplace Concentration)  
100-42-5 styrene: 5
- 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.
- Product related hazard informations:                     The product has been classified and marked in accordance with directives on hazardous materials.
- Hazard symbols:                         Xn Harmful
- Hazard-determining components of labelling:                     styrene
- Risk phrases:                             Flammable.  
   Harmful by inhalation.  
   Irritating to eyes and skin.
- Safety phrases:                           Keep out of the reach of children.  
   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.  
   Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point  
   Wear suitable gloves and eye/face protection.  
   If swallowed, seek medical advice immediately and show this container or label.  
   Use only in well-ventilated areas.

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- National regulations:
- Water hazard class: Water hazard class 2 (Self-assessment): 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: Laboratory
- Contact: Dieter Zimmermann
- \* Data compared to the previous version altered.

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