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1 Identification		
Product identifier     Trade name:	Marble Filler 1000 THIXO	
- Article number:	10420, 10421, 10422, 10423, 10424, 10425, 104 10432, 10433, 10415, 10416, 10417, 10418, 10438,	
Relevant identified uses of the substance or mixture and uses advised against     Application of the substance / the	No further relevant information available. Knife filler/ Surfacer	
mixture		
Details of the supplier of the saf     Manufacturer/Supplier:	ety data sheet AKEMI chemisch technische Spezialfabrik GmbH Lechstrasse 28 D 90451 Nürnberg	Tel. +49(0)911-642960 Fax. +49(0)911-644456 e-mail info@akemi.de
<ul> <li>Information department:</li> <li>Emergency telephone number:</li> </ul>	Laboratory Product Safety Department AKEMI chemisch technis Tel. +49(0)911-64296-59 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. Toxikologisches Zentrum Zürich Tel.145	sche Spezialfabrik GmbH
2 Hazard(s) identification		
· Classification of the substance	or mixture	
GHS02 Flame		
Flam. Liq. 3 H226 Flammable liqu	uid and vapour.	
GHS08 Health hazard		
STOT RE 1 H372 Causes damage	ge to organs through prolonged or repeated exposure.	
GHS07		
Skin Irrit. 2 H315 Causes skin iri	ritation.	
Eye Irrit. 2A H319 Causes seriou	s eye irritation.	
Classification according to Directive	e 67/548/EEC or Directive 1999/45/EC	
🗙 Harmful		
Harmful by inhalation. Harmful: da	nger of serious damage to health by prolonged exposu	ire through inhalation.
Irritant		
Irritating to eyes and skin.		
Flammable. • Information concerning particular hazards for human and		
environment:	Contact with skin and inhalation of aerosols/ vapour be avoided.	rs of the preparation should
	Vapours of the product are heavier than air and may in mines, drains or cellars with higher concentration. The product has to be labelled due to the calculation Classification guideline for preparations of the EU" in	n procedure of the "General

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### Safety Data Sheet acc. to OSHA HCS

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Classification system:	The classification was made according to the latest editions of internation substances lists, and expanded upon from company and literature data.
Label elements	
Labelling according to EU	
guidelines:	The product has been classified and marked in accordance with directives hazardous materials.
Code letter and hazard	
designation of product:	Xn Harmful
Hazard-determining componer	
of labeling:	styrene
Risk phrases:	Flammable. Harmful by inhalation. Irritating to eyes and skin. Harmful: danger of serious damage to health by prolonged exposure thro inhalation.
<u>Safety phrases:</u>	Keep out of the reach of children. Do not breathe vapour. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and s medical advice. Do not empty into drains, dispose of this material and its container at hazard
	or special waste collection point 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 lab Use only in well-ventilated areas.
Classification system: NFPA ratings (scale 0 - 4)	Health = $2$
	Fire = 3 Reactivity = 0
HMIS-ratings (scale 0 - 4)	HEALTH12Health = *2FIRE3Fire = 3REACTIVITYReactivity = 0
Other hazards	During processing and product hardening the network generator is released fume. Consequently, take care for adequate air conditioning and for fue exhaustion on request.
Results of PBT and vPvB asse	essment
PBT: vPvB:	Not applicable. Not applicable.
Composition/information on	ingredients
Chemical characterization: M	<b>f</b> ixtures
Description:	Mixture of the substances listed below with nonhazardous additions.

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#### Trade name: Marble Filler 1000 THIXO

	(Co	ontd. of page 2)
Dangerous components:		
CAS: 471-34-1 EINECS: 207-439-9	calcium carbonate	25-50%
CAS: 100-42-5 EINECS: 202-851-5 Index number: 601-026-00-0	styrene Xn R20-48/20-65;	12.5-25%
CAS: 38668-48-3 EINECS: 254-075-1	1,1'-(p-tolylimino)dipropan-2-ol	<1%
CAS: 141-78-6 EINECS: 205-500-4 Index number: 607-022-00-5	ethyl acetate Xi R36; F R11 R66-67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336 For the wording of the listed risk phrases refer to section 16.	<1%

#### 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.
	Symptoms of poisoning may even occur after several hours; therefore medical
	observation for at least 48 hours after the accident.
<ul> <li>After inhalation:</li> </ul>	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:	If skin irritation continues, consult a doctor.
	Immediately wash with water and soap and rinse thoroughly.
<u>After eye contact:</u>	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing:	If symptoms persist consult doctor.
Information for doctor:	With reference to section 2 the formulation contains styrene in the indicated
	mass concentration range. Styrene fumes will preferably be incorporated by
	inhalation via respiratory tract, skin resorption is currently considered as an
	inferior way of incorporation. In case of inhalation styrene is absorbed in a 60-
	90% range. Distribution in organism occurs rapidly, the maximum blood
	concentration can be analyzed after one hour after incorporation. Styrene
	exposition affects skin, mucous membranes, and central nervous system (CNS).
	Acute damages / risks to health:
	In case of styrene poisoning mainly damages to and interactions with central
	nervous system (CNS) arise. In concentration ranges above 200 ml/m3
	symptoms such as fatigue, nausea, imbalance and prolonged response times
	are observed.
	Chronical health risks:
	Effects at central and peripheral nervous system and respiratory tract are
	evident in literature. Main health risks are:
	- prolonged response times
	- reduced cognitive performance, partial amnesia
	- retardation of nervous impulse transition speed
	- disturbances of pulmonary function
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de name: Marble Filler 1000 TH	
	(Contd. of page
Most important symptoms and	
effects, both acute and delayed	Headache
	Dizziness
	Dizziness Nausea
Danger	Danger of impaired breathing.
Danger	Skin contact with polyester and epoxy resin solutions as ingredient of t
	product should be avoided due to risks of skin irritations or allergic sl
	appearances. If occasional hand contact can not be avoided, protection glove
	proper protection ointments and protective agents generating a protective lay
	on the skin were applied.
Indication of any immediate	
medical attention and special	
treatment needed	If swallowed, gastric irrigation with added, activated carbon.
Fire-fighting measures	
Extinguishing media	
Suitable extinguishing agents:	CO2, extinguishing powder or water spray. Fight larger fires with water spray
	alcohol resistant foam.
For safety reasons unsuitable	Mater with full int
extinguishing agents:	Water with full jet
Special hazards arising from th substance or mixture	Formation of toxic gases is possible during heating or in case of fire.
Substance of mixture	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 respiatory protective device.
	Do not inhale explosion gases or combustion gases.
	Wear fully protective suit.
Additional information	Mount respiratory protective device.
Additional information	Dispose of fire debris and contaminated fire fighting water in accordance w official regulations.
	Collect contaminated fire fighting water separately. It must not enter the sewa
	system.
A	
Accidental release measures	
Personal precautions, protective equipment and emergency	
procedures	Ensure adequate ventilation
procedures	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.
	Inform respective authorities in case of seepage into water course or sewa
	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, univers
	binders, sawdust).
	Dispose contaminated material as waste according to item 13.
	Ensure adequate ventilation. (Contd. on page
	Conta. on page

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<u>Reference to other sections</u>	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 receptacles tightly sealed. Store in cool, dry place in tightly closed receptacles. Keep away from heat and direct sunlight. Ensure good interior ventilation, especially at floor level. (Fumes are heaving than air). Use only in well ventilated areas. Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
Information about protection against explosions and fires:	Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
· Conditions for safe storage, i	ncluding any incompatibilities
<ul> <li><u>Storage:</u></li> <li><u>Requirements to be met by</u> storerooms and receptacles:</li> </ul>	Store only in the original receptacle. Prevent any seepage into the ground.
Information about storage in on common storage facility:	
Further information about storage conditions:	
<ul> <li>Storage class:</li> <li>Specific end use(s)</li> </ul>	3 No further relevant information available.
8 Exposure controls/personal p	protection
Additional information about design of technical systems:	No further data; see item 7.
· Control parameters	
	nat require monitoring at the workplace:
471-34-1 calcium carbonate	
PEL Long-term value: 15* 5** r *total dust **respirable fra	ction
REL Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction	
TLV TLV withdrawn	
100-42-5 styrene	
PEL Long-term value: 100 ppr Ceiling limit value: 200; 60 *5-min peak in any 3 hrs	
REL Short-term value: 425 mg/ Long-term value: 215 mg/	m³, 50 ppm
	/m <sup>3</sup> , 40 ppm



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Trade name: Marble Filler 1000 THIXO			
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141-78-6 ethyl acetate			
PEL Long-term value: 1400 mg/r	n³, 400 ppm		
REL Long-term value: 1400 mg/r	REL Long-term value: 1400 mg/m³, 400 ppm		
TLV Long-term value: 1440 mg/r	n³, 400 ppm		
Ingredients with biological limit va	lues:		
100-42-5 styrene			
BEI 400 mg/g creatinine Medium: urine Time: end of shift Parameter: Mandelic acid plu	us phenylglyoxylic acid (nonspecific)		
0.2 mg/L Medium: venous blood Time: end of shift Parameter: Styrene (semi-qu	uantitative)		
Additional information:	The lists that were valid during the creation were used as basis.		
<ul> <li>Exposure controls</li> <li>Personal protective equipment:</li> <li>General protective and hygienic measures:</li> </ul>	Do not eat, drink, smoke or sniff while working.		
	Use skin protection cream for skin protection. Be sure to clean skin thoroughly after work and before breaks. 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:	Filter A/P2 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.		
• <u>Protection of hands:</u>	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 in application and combination of protective gloves: STOKO EMULSION (http://www.stoko.com) Akemi skin protection recommendation for skin cleaning after product handling: SOLOPOL (http://www.stoko.com) 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 anylyses 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 t     product the substance/the preparation.     Due to missing tests no recommendation to the glove material an     given for the product the preparation the chemical mixture.     Selection of the glove material on consideration of the penetrati     times, rates of diffusion and the degradation     butyl rubber, BR     The selection of the suitable gloves does not only depend on the material, t     also on further marks of quality and varies from manufacturer to manufacture     As the product is a preparation of several substances, the resistance of t     glove material can not be calculated in advance and has therefore to be check     prior to the application.     Penetration time of glove material     Value for the permeation: Level <u>s</u> 1, 30 min     The exact break trough time has to be observed.     Penetration from splashes gloves     made of the following materials are     suitable:     Butyl rubber, BR     Butyl rubber, CR     Natu	ade name: Marble Filler 1000 THI	(O
Atterial of gloves       The glove material has to be impermeable and resistant to t product the substance/the preparation. Due to missing tests no recommendation to 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, the application.       Preventer to manufacture to manufacture to manufacture to the application.         • Penetration time of glove material       Value for the permeation: Level < 1, 30 min         The selection of the following materials are suitable:       Butyl rubber, BR         • As protection from splashes gloves       Butyl rubber, BR         • As protection from splashes gloves       Butyl rubber, BR         • Not suitable are gloves made of the following materials are suitable:       Butyl rubber, BR         • Not suitable are gloves made of the following materials:       Fluorocarbon rubber (Viton)         • Nitile rubber, NBR       Chioroprene rubber, CR         • Natural tubber, NB       Strong gloves         • Ever protection:       Protective work clothing         • Protection:       Pasty         • Chioroprene rubber, CR       Natural rubber, NR         • Strong gloves       Leather gloves         • Burger gloves       Chioroprene rubber, CR         • Appretaction:       Pasty		(Contd. of page
As protection       Penetration is signed of the following materials are suitable:         Butyl rubber, BR       The selection of the glove science of several substances // the substance of a glove material on consideration of the penetration it mes, 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, the approach of several substances, the resistance of a glove material can not be calculated in advance and has therefore to be check prior to the application.         • Penetration time of glove material       Value for the permeation: Level ≤ 1, 30 min         The selection of the following materials are suitable:       Butyl rubber, BR         • As protection from splashes gloves       Butyl rubber, BR         Butyl rubber, BR       Butyl rubber, BR         Butyl rubber, BR       Butyl rubber, BR         Suitable:       Butyl rubber, BR         Butyl rubber, RR       Chioroprene rubber, CR         Natural rubber, NR       Strong gloves         • As protection from splashes gloves       For the permation: Tubber, NR         Strong gloves       Leather gloves         • Butyl rubber, RR       Strong gloves         • Strong gloves       Leather gloves         • Strong gloves       Eagertal information         • Appearance:       Postective work clothing		
product/ the substance/ the preparation.       Due to missing tests no recommendation to the glove material can given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetrati times, rates of diffusion and the degradation         • Material of gloves       Butyl rubber, BR         The selection of the spinot of several substances, the resistance of to a preparation of several substances, the resistance of to the application.         • Penetration time of glove material       Value for the permeation: Level ≤ 1, 30 min         • Ne 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         Butyl rubber, NBR         Storag gloves         Bady rubber, NBR         Butyl rubber, NBR         Butyler the follow		Protective gloves
product/ the substance/ the preparation.       Due to missing tests no recommendation to the glove material can given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetrati times, rates of diffusion and the degradation         • Material of gloves       Buty Inbber, BR         The selection of the spinot of several substances, the resistance of to glove material can not be calculated in advance and has therefore to be check prior to the application.         • Penetration time of glove material       Value for the permeation: Level ≤ 1, 30 min         • React Dreak 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:         Buty! rubber, BR         Buty! rubber, BR         Buty! rubber, BR         Butoject (KCL, Art No. 897, 898)         • As protection from splashes gloves         made of the following materials are suitable:         Butoject (KCL, Art No. 897, 898)         • Not suitable are gloves made of the following materials are suitable;         • Not suitable are gloves made of the following materials are suitable;         • Loarden rubber, NBR         • Not suitable are gloves made of the following materials are strong gloves         • Loarden rubber, NBR         • Not suitable rubperies         • Depreterion:		The glove material has to be impermeable and resistant to the
Due to missing tests no recommendation to the glove material can given for the product the proparation/ the chemical mixture. Selection of the glove material on consideration of the penetratities, rates of diffusion and the degradation         Material of gloves       Butyl rubber, BR         Butyl rubber, BR       The selection of the suitable gloves does not only depend on the material, to also on further marks of quality and varies from manufacturer to manufacturer to manufacturer to manufacturer to manufacturer to manufacturer to the product is a preparation of several substances, the resistance of to glove material can glove material can glove material and the orbit portuentiated in advance and has therefore to be check prior to the application.         • Penetration time of glove material       Value for the permeation: Level ≤ 1, 30 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       Butyl rubber, BR Butoject (KCL, Art No. 897, 898)         • As protection from splashes gloves       Butyl rubber, BR Butoject (KCL, Art No. 897, 898)         • Not suitable are gloves made of the following materials:       Fluorocarbon rubber (Viton) Nitrile rubber, NBR Butoject (KCL, Art No. 897, 898)         • Not suitable are gloves made of the following materials:       Fluorocarbon rubber (Viton) Nitrile rubber, NBR Butoject (KCL, Art No. 897, 898)         • Not suitable are gloves       Eacher gloves         • Eye protection:       Fluorocarbon rubber (Viton) Nitrile rubber, NBR Strong gloves         • Eye protection:       Pro		
given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetrati 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, the selection of the application of several substances, the resistance of the glove material on a preparation of several substances, the resistance of the glove material on the particulation.         • Penetration time of glove material or to the application.       Value for the permeation: Level ≤ 1, 30 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 Butyl rubber, BR         Butyl rubber, BR       Butylet (KCL, Art No. 897, 898)         • As protection from splashes gloves made of the following materials are suitable:       Butylet (KCL, Art No. 897, 898)         • Not suitable are gloves made of the following materials:       Fluorocarbon rubber, CR Natural rubber, NBR         • Not suitable are gloves       Fluorocarbon rubber, CR Natural rubber, NR         • Eve protection:       • Tightly sealed goggles         • Eventorization       Protective work clothing         • Protection:       • Tightly sealed goggles         • Body protection:       Pasty Color;         • Different according to coloring Octor:       Otheracternistic         • Prosical and chemical prope		
Selection of the glove material on consideration of the penetrati         Image: Selection of the suitable gloves does not only depend on the material, to also on further marks of quality and varies from manufacture to manufacture and the degradation of several substances, the resistance of the splication.         Penetration time of glove material can not be calculated in advance and has therefore to be check prior to the application.         Penetration time of glove material are the ease to use the suitable gloves does not only depend on the material, to glove material can not be calculated in advance and has therefore to be check prior to the application.         Penetration time of glove material are suitable:       Butyl rubber, BR         Suitable:       Butyl rubber, BR         Butyl rubber, BR       Butyl rubber, BR         Suitable:       Butyl rubber, BR         Suitable:       Butyl rubber, BR         Butyl rubber, BR       Butyl rubber, BR         Butyl rubber, BR       Butyl rubber, BR         Suitable:       Butyl rubber, BR         Butyl rubber, BR       Butyl rubber, BR         Butyl rubber, SR       Butyl rubber, SP         Phorearcein       Fluorocarbon rubber, CR         Not suitable are gloves made of       Fluorocarbon rubber,		
Material of gloves       Butyl rubber, BR         The selection of the suitable gloves does not only depend on the material, to also on further marks of quality and varies from manufacturer to manufacturer to glove material is a preparation of several substances, the resistance of the permeation of several substances. It is a preparation of several substances, the resistance of the following materials are suitable:         Penetration time of glove material       Value for the permeation: Level < 1, 30 min		
The selection of the suitable gloves does not only depend on the material t, also on further marks of quality and varies from manufacturer to manufactur. As the product is a preparation of several substances, the resistance of t glove material         Penetration time of glove material       Value for the permeation: Level ≤ 1, 30 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         Butyl rubber, NBR         Chioroprene rubber, CR         Natural rubber, NR         Chioroprene rubber, CR <td></td> <td></td>		
also on further marks of quality and varies from manufacturer to manufacturer and 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 check prior to the application.         Penetration time of glove material Value for the permeation. Level ≤ 1, 30 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       Butyl rubber, BR Butoject (KCL, Art No. 897, 898)         Not suitable are gloves made of the following materials are suitable:       Butyl rubber, BR Butoject (KCL, Art No. 897, 898)         Not suitable are gloves made of the following materials:       Fluorocarbon rubber (Viton) Nitrife rubber, NBR Chioropene rubber, CR Natural rubber, NR Strong gloves         Eye protection:       Fluorocarbon rubber (Viton) Nitrife rubber, NR Strong gloves         Eye protection:       Tightly sealed goggles         Physical and chemical properties       General Information         Appearance:       Form:         Form:       Pasty         Color:       Different according to coloring         Odor:       Characteristic         Ph-value:       Not applicable         Characteristic       Undetermined.         polint/Meiting range:       145 °C (2	<ul> <li>Material of gloves</li> </ul>	
As the product is a preparation of several substances, the resistance of t glove material can not be calculated in advance and has therefore to be check prior to the application. Penetration time of glove material Value for the permeation: Level ≤ 1, 30 min The exact break trough time has to be found out by the manufacturer of t protective gloves and has to be observed. For the permanent contact gloves made of the following materials are suitable: Butyl rubber, BR Butyl rubber, BR 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) Not suitable are gloves made of the following materials: Fluorocarbon rubber (Viton) Nitrile rubber, NR Chioroprene rubber, CR Natural rubber, NR Strong gloves Leather gloves Leather gloves Eye protection: Physical and chemical properties General Information Appearance: Form: Appearance: Form: ph-value: Not applicable Characteristic pH-value: Not ap		
glove material can not be calculated in advance and has therefore to be check prior to the application.         Penetration time of glove material       Value for the permeation: Level ≤ 1, 30 min         The exact break trough time has to be found out by the manufacturer of t protective gloves and has to be observed.         For the permanent contact gloves made of the following materials are suitable:       Butyl rubber, BR         As protection from splashes gloves made of the following materials are suitable:       Butyl rubber, BR         Not suitable are gloves made of the following materials:       Fluorocarbon rubber (Viton)         Nitrife rubber, NBR       Fluorocarbon rubber (Viton)         Nitrife rubber, NBR       Choloroprene rubber, CR         Natural rubber, NR       Choloroprene rubber, CR         Natural rubber, NR       Tightly sealed goggles         Eye protection:       Tightly sealed goggles         Physical and chemical properties       General Information         Appearance:       Form:         protective       Vinarectristic         pH-value:       Not applicable         Characteristic       Undetermined.         pH-value:       Not applicable         Characteristic       Pidetermined.         Boling point/Metting range:       I45 °C (293 °F)         Flash point:       32 °C (90 °F)		
Penetration time of glove material       Value for the permeation: Level ≤ 1, 30 min         The exact break trough time has to be found out by the manufacturer of t       protective gloves and has to be observed.         For the permanent contact gloves       Butyl rubber, BR         made of the following materials are suitable:       Butyl rubber, BR         butyler (KCL, Art No. 897, 898)       Butyler         Not suitable are gloves made of the following materials:       Fluorocarbon rubber (Viton)         Nitrile rubber, NBR       Chloroprene rubber, CR         Natural rubber, NBR       Chloroprene rubber, CR         Physical and chemical properties       Charceristic         Operance:       Form:       Pertection:		
Penetration time of glove material       Value for the permeation: Level \$ 1, 30 min The exact break trough time has to be found out by the manufacturer of t 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)         Not suitable are gloves made of the following materials:       Fluorocarbon rubber (Viton) Nitrile rubber, NBR Chloroprene rubber, CR Natural rubber, NRR Strong gloves         Eye protection:       Tightly sealed goggles         Body protection:       Protective work clothing         Physical and chemical properties       General Information Appearance: Form:         Physical and chemical properties       Different according to coloring Color:         Odor:       Different according to coloring Color:         Odor:       Not applicable         Characteristic       Undetermined, Hast or C (293 °F)         Flash point:       32 °C (90 °F)         Ignition temperature:       480 °C (896 °F)		
For the permanent contact gloves       The exact break trough time has to be found out by the manufacturer of t 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)         Not suitable are gloves made of the following materials:       Fluorocarbon rubber (Viton) Nitrile rubber, NR Chloroprene rubber, CR Natural rubber, NR Strong gloves         Eye protection:       Fluorocarbon rubber, CR Natural rubber, NR Strong gloves         Eye protection:       Tightly sealed goggles         Physical and chemical properties       Caloror         General Information       Appearance:         Appearance:       Pasty         Color:       Different according to coloring         Odor:       Characteristic         • pH-value:       Not applicable         • Charage in condition       Undetermined, Eoling are:         Melting point/Melting range:       Undetermined, Eoling are:         Flash point:       32 °C (896 °F)	Penetration time of alove material	
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As protection from splashes gloves made of the following materials are suitable:       Butyl rubber, BR Butoject (KCL, Art No. 897, 898)         Not suitable are gloves made of the following materials:       Fluorocarbon rubber (Viton) Nitrile rubber, NBR Chloroprene rubber, CR Natural rubber, NR Strong gloves Leather gloves         Eye protection:       Tightly sealed goggles         Body protection:       Protective work clothing         Physical and chemical properties       Formation         General Information Appearance: Form: Color:       Pasty Different according to coloring Odor:         Other work applicable       Characteristic         pH-value:       Not applicable         Charage in condition Meting point/Boiling range: Boiling point/Boiling range:       Undetermined. 145 °C (293 °F)         Flash point:       32 °C (890 °F)         Ignition temperature:       480 °C (896 °F)	suitable:	
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Eye protection:       Chloroprene rubber, CR Natural rubber, NR Strong gloves Leather gloves         Eye protection:       Tightly sealed goggles         Body protection:       Protective work clothing         Physical and chemical properties       Information on basic physical and chemical properties         General Information       Appearance:         Form:       Pasty         Color:       Different according to coloring         Odor:       Characteristic         pH-value:       Not applicable         Change in condition Melting point/Melting range:       Undetermined. Bioling point/Boiling range:         Flash point:       32 °C (90 °F)         Ignition temperature:       480 °C (896 °F)		
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Eye protection:       Tightly sealed goggles         Body protection:       Protective work clothing         Physical and chemical properties       Information on basic physical and chemical properties         General Information       General Information         Appearance:       Form:         Form:       Pasty         Color:       Different according to coloring         Odor:       Characteristic         PH-value:       Not applicable         Change in condition       Undetermined.         Melting point/Boiling range:       Undetermined.         Boiling point/Boiling range:       145 °C (293 °F)         Flash point:       32 °C (90 °F)         Ignition temperature:       480 °C (896 °F)		Strong gloves
Body protection:       Protective work clothing         Physical and chemical properties         Information on basic physical and chemical properties         General Information         Appearance:         Form:       Pasty         Color:       Different according to coloring         Odor:       Characteristic         pH-value:       Not applicable         Change in condition       Undetermined. Boiling point/Boiling range:         Melting point/Boiling range:       145 °C (293 °F)         Flash point:       32 °C (90 °F)         Ignition temperature:       480 °C (896 °F)	. Eve protection:	
Body protection:       Protective work clothing         Physical and chemical properties         Information on basic physical and chemical properties         General Information         Appearance:         Form:       Pasty         Color:       Different according to coloring         Odor:       Characteristic         PH-value:       Not applicable         Change in condition       Undetermined.         Boiling point/Melting range:       145 °C (293 °F)         Flash point:       32 °C (90 °F)         Ignition temperature:       480 °C (896 °F)		
Body protection:       Protective work clothing         Physical and chemical properties:       Information on basic physical and chemical properties:         General Information:       Appearance:         Form:       Pasty         Color:       Different according to coloring         Odor:       Characteristic         • pH-value:       Not applicable         • Change in condition       Undetermined.         Boiling point/Boiling range:       Undetermined.         Boiling point/Boiling range:       145 °C (293 °F)         • Flash point:       32 °C (90 °F)         • Ignition temperature:       480 °C (896 °F)		
Physical and chemical properties         Information on basic physical and chemical properties         General Information         Appearance:         Form:       Pasty         Color:       Different according to coloring         Odor:       Characteristic         • pH-value:       Not applicable         • Change in condition       Undetermined.         Boiling point/Melting range:       145 °C (293 °F)         • Flash point:       32 °C (90 °F)         • Ignition temperature:       480 °C (896 °F)	Body protection:	
Information on basic physical and chemical properties         General Information         Appearance:         Form:       Pasty         Color:       Different according to coloring         Odor:       Characteristic         pH-value:       Not applicable         Change in condition       Undetermined.         Boiling point/Melting range:       145 °C (293 °F)         Flash point:       32 °C (90 °F)         Ignition temperature:       480 °C (896 °F)		r rotodive work clouining
General Information Appearance: Form: Color:Pasty Different according to coloring Odor:Odor:Different according to coloring Odor:Odor:CharacteristicpH-value:Not applicableChange in condition Melting point/Melting range: Boiling point/Boiling range:Undetermined. 145 °C (293 °F)Flash point:32 °C (90 °F)Ignition temperature:480 °C (896 °F)	Physical and chemical propertie	S
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Color:Different according to coloring Characteristicodor:CharacteristicpH-value:Not applicable• Change in condition Melting point/Melting range:Undetermined. 145 °C (293 °F)• Flash point:32 °C (90 °F)• Ignition temperature:480 °C (896 °F)		Poetu
Odor:       Characteristic         pH-value:       Not applicable         Change in condition       Undetermined.         Melting point/Melting range:       Undetermined.         Boiling point/Boiling range:       145 °C (293 °F)         Flash point:       32 °C (90 °F)         Ignition temperature:       480 °C (896 °F)		
pH-value:       Not applicable         Change in condition       Undetermined.         Melting point/Melting range:       Undetermined.         Boiling point/Boiling range:       145 °C (293 °F)         Flash point:       32 °C (90 °F)         Ignition temperature:       480 °C (896 °F)		
Change in condition       Undetermined.         Melting point/Melting range:       Undetermined.         Boiling point/Boiling range:       145 °C (293 °F)         Flash point:       32 °C (90 °F)         Ignition temperature:       480 °C (896 °F)		
Melting point/Melting range:Undetermined.Boiling point/Boiling range:145 °C (293 °F)• Flash point:32 °C (90 °F)• Ignition temperature:480 °C (896 °F)	·	
Boiling point/Boiling range:       145 °C (293 °F)         • Flash point:       32 °C (90 °F)         • Ignition temperature:       480 °C (896 °F)		Undetermined.
• Flash point:         32 °C (90 °F)           • Ignition temperature:         480 °C (896 °F)		
	Ignition temperature:	480 °C (896 °F)
		(Contd. on page

### Safety Data Sheet

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**AKEMI**<sup>®</sup>

#### Trade name: Marble Filler 1000 THIXO

	(Contd. of page 7)
<ul> <li>Auto igniting:</li> </ul>	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
<ul> <li>Explosion limits: Lower: Upper:</li> </ul>	1.2 Vol % 8.9 Vol %
· Vapor pressure at 20 °C (68 °F):	6 hPa (5 mm Hg)
Density at 20 °C (68 °F):	1.74 g/cm³ (14.52 lbs/gal) ([1,73 - 1,78 g/cm³])
Specific gravity at 20 °C (68 °F):	1.73 - 1.78 g/cm <sup>3</sup> (14.437 - 14.854 lbs/gal)
<ul> <li>Solubility in / Miscibility with Water:</li> </ul>	Not miscible or difficult to mix.
· <u>Viscosity:</u> Dynamic at 20 °C (68 °F):	35000 mPas
<u>Solvent content:</u> <u>Organic solvents:</u>	15.7 %
Solids content: • Other information	82.6 % No further relevant information available.

#### 10 Stability and reactivity

<ul> <li>Reactivity</li> <li>Chemical stability</li> <li>Thermal decomposition / conditions to be avoided:</li> <li>Possibility of hazardous</li> </ul>	No decomposition if used and stored according to specifications.
reactions	Exothermic polymerization. Reacts with peroxides and other radical forming substances. Reacts with strong acids. Reacts with strong alkali.
<ul> <li>Conditions to avoid</li> <li>Incompatible materials:</li> <li>Hazardous decomposition products:</li> </ul>	No further relevant information available. No further relevant information available. No dangerous decomposition products known.

#### **11 Toxicological information**

### · Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:			
100-42-5 s	100-42-5 styrene		
Oral	LD50	5000 mg/kg (rat)	
Dermal	LD50	>2000 mg/kg (rat) (OECD-Prüfrichtlinie 402)	
Inhalative	LC50/4 h	11.8 mg/l (rat)	
	LC50/4h	9.5 mg/m3 (mouse)	
	Primary irritant effect:		
on the skin: Irritant to skin and mucous membranes.			
• on the eye: Irritating effect.			
Sensitization: No sensitizing effects known.			
		-	(Contd. on page 9)

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Trade name: Marble Filler 1000 THIXO		
<ul> <li>Experience with humans:</li> </ul>	(Contd. of page 8) After incorporation and inhalation styrene predominantly will be metabolized in the organism to mandelic and phenylglyoxylic acid and matabolites will pass through urine excretion.	
<ul> <li>Additional toxicological information:</li> </ul>	The product shows the following dangers according to internally approved calculation methods for preparations: Harmful Irritant	
Carcinogenic categories		

<ul> <li>IARC (International Agency for Research on Cancer)</li> </ul>				
100-42-5	styrene	2B		
14807-96-6	Talc (Mg3H2(SiO3)4)	2B		
13463-67-7	titanium dioxide	2B		
123-31-9	1,4-dihydrxybenzene	3		
· NTP (National Toxicology Program)				
None of the ingredients is listed.				

### 12 Ecological information

#### · Toxicity

· TOXICILY				
<ul> <li>Aquatic tox</li> </ul>				
100-42-5 styrene				
EC10	0.28 mg/l (Pseudokirchneriella subcapitata) (EPA OTS 797.1050)			
EC10/16h	72 mg/l (pseudomonas putida)			
EC20/0.5h	140 mg/l (BES) (OECD 209)			
EC50	500 mg/l (BES) (ISO Vorschrift 8192-1986 E)			
	5.5 mg/l (Photobac. phosphoreum)			
EC50/16h	> 72.0 mg mg/l (pseudomonas putida)			
EC50/48h	0.56 mg/l (green alge)			
	4.7 mg/l (daphnia magna)			
EC50/72h	0.46-4.3 mg/l (Pseudokirchneriella subcapitata)			
EC50/72u	>1-<10 mg/l (green alge)			
EC50/8d	> 200 mg/l (Scenedesmus quadricauda)			
EC50/96h	0.15-3.2 mg/l (Pseudokirchneriella subcapitata)			
IC5/8d	> 200 mg/l (Scenedesmus quadricauda)			
IC50/72h	4.9 mg/l (green alge)			
	1.4 mg mg/l (selenastrum capricornutum)			
LC50/72h	4.9 mg/l (green alge)			
LC50/96h	>1-<10 mg/l (piscis)			
	25.0 mg/l (lem)			
	32 mg/l (pimephales promelas)			
	4.02 mg/l (Pimephales promelas)			
	58.75-95.32 mg/l (poecilia reticulata)			
	e and degradability No further relevant information available.			
	n environmental systems: lative potential No further relevant information available.			
• Mobility in s				
· Additional ecological information:				
• General notes: Do not allow product to reach ground water, water course or sewage system (Contd. on pa				
	USA			

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	(Contd. of page
	Water hazard class 2 (Self-assessment): hazardous for water
<ul> <li>Results of PBT and vPvB asses</li> <li>PBT:</li> </ul>	<u>sment</u> Not applicable.
• <u>PD1.</u> • vPvB:	Not applicable.
· Other adverse effects	No further relevant information available.
3 Disposal considerations	
Waste treatment methods     Recommendation:	Must not be disposed of together with household garbage. Do not allow produt to reach sewage system.
· Uncleaned packagings:	
Recommendation:	Empty contaminated packagings thoroughly. They can be recycled aft
· Recommended cleansing agent:	thorough and proper cleaning. Alcohol acetone
Transport information	
· UN-Number	
· DOT, ADR, IMDG, IATA	UN3269
<ul> <li>UN proper shipping name</li> <li>DOT</li> </ul>	Polyester resin kit
ADR	3269 Polyester resin kit
IMDG, IATA	POLYESTER RESIN KIT
· Transport hazard class(es)	
· DOT	
PLAMABLE LOUD	
Class	2 Elemmoble liquide
· <u>Class</u> · Label	3 Flammable liquids. 3
- ADR	
· <u>Class</u> · Label	3 (FT3) Flammable liquids
- <del></del>	ى ب
· <u>IMDG, IATA</u>	
· <u>Class</u>	3 Flammable liquids.
· Label	3
· Packing group	
DOT, ADR, IMDG, IATA	
	(Contd. on page 1



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		(Contd. of page
Environmental hazards:		
Marine pollutant:	No	
Special precautions for user	Warning: Flammable liquids	
Danger code (Kemler): EMS Number:	- F-E,S-D	
Transport in bulk according to Ann		
MARPOL73/78 and the IBC Code	Not applicable.	
UN "Model Regulation":	UN3269, Polyester resin kit, 3, III	
Regulatory information		
Safety, health and environmental re Sara	gulations/legislation specific for the substance o	<u>r mixture</u>
Section 355 (extremely hazardous sul	ostances):	
None of the ingredient is listed.		
Section 313 (Specific toxic chemical li	stings):	
100-42-5 styrene		
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 reproducti	ve toxicity for females:	
None of the ingredients is listed.		
Chemicals known to cause reproducti	ve toxicity for males:	
38668-48-3 1,1'-(p-tolylimino)dipropa	n-2-ol	
Chemicals known to cause developm	ental toxicity:	
None of the ingredients is listed.		
Cancerogenity categories		
EPA (Environmental Protection Agend	v)	
None of the ingredients is listed.	<u>11</u>	
TLV (Threshold Limit Value establishe	d by ACGIH)	
100-42-5 styrene		
14807-96-6 Talc (Mg3H2(SiO3)4)		· · · · · · · · · · · · · · · · · · ·
13463-67-7 titanium dioxide		
123-31-9 1,4-dihydrxybenzene		
MAK (German Maximum Workplace 0	concentration)	
100-42-5 styrene		
14807-96-6 Talc (Mg3H2(SiO3)4)		
13463-67-7 titanium dioxide		
123-31-9 1,4-dihydrxybenzene		
NIOSH-Ca (National Institute for Occu	pational Safety and Health)	
13463-67-7 titanium dioxide		
OSHA-Ca (Occupational Safety & Hea	Ith Administration)	
None of the ingredients is listed.		

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Trade name: Marble Filler 1000 THIXO					
	(Contd. of page 11)				
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 labeling:	styrene				
• <u>Risk phrases:</u>	Flammable. Harmful by inhalation. Irritating to eyes and skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation.				
<ul> <li><u>Safety phrases:</u></li> </ul>	Keep out of the reach of children. Do not breathe vapour. 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 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.				
<ul> <li>National regulations:</li> </ul>					
<ul> <li>Information about limitation of use:</li> </ul>	Employment restrictions concerning young persons must be observed. Employment restrictions concerning pregnant and lactating women must be observed.				
Water hazard class:	Water hazard class 2 (Self-assessment): hazardous for water.				
<ul> <li>VOC USA</li> <li>Chemical safety assessment:</li> </ul>	272.8 g/l / 2.28 lb/gl 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.

<ul> <li>Department issuing MSDS:</li> </ul>	Laboratory	
· Contact:	Dieter Zimmermann	
	Elke Hake	
	Fon ++49 (0)911 64296-59	
	@mail E.Hake@akemi.de	
<ul> <li>Date of preparation / last revision</li> </ul>	01/22/2014 / -	
Abbreviations and acronyms:	RID: Règlement international concernant le transport des marchandises danger fer (Regulations Concerning the International Transport of Dangerous Goods by ICAO: International Civil Aviation Organization	
	ADR: Accord européen sur le transport des marchandises dangereuses p Agreement concerning the International Carriage of Dangerous Goods by Road)	
	IMDG: International Maritime Code for Dangerous Goods	
	DOT: US Department of Transportation IATA: International Air Transport Association	
	ACGIH: American Conference of Governmental Industrial Hygienists	
	EINECS: European Inventory of Existing Commercial Chemical Substances	
	ELINCS: European List of Notified Chemical Substances	
	CAS: Chemical Abstracts Service (division of the American Chemical Society)	
	NFPA: National Fire Protection Association (USA)	(Contd. on page 13)
		USA

### Safety Data Sheet

acc. to OSHA HCS

Printing date 01/22/2014

#### Trade name: Marble Filler 1000 THIXO

HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent Reviewed on 01/22/2014

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USA

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