

Safety Data Sheet

according to Regulation (EC) No. 1907/2006

EH 196 R Komp. B

Print date: 12.07.2011

Product code: S01567

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**Product identifier**

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Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Grouting mortar

Details of the supplier of the safety data sheet

Company name:	Pagel Spezial-Beton GmbH & Co.KG	
Street:	Wolfsbankring 9	
Place:	D-45355 Essen	
Telephone:	+49 (0201) 685040	Telefax: +49 (0201) 68504-31
e-mail:	info@pagel.de	
Contact person:	Daniel Schempershofe	
e-mail:	schempershofe@pagel.de	
Responsible Department:	Abteilung Labor	

Emergency telephone: +49 (0201) 685040**Further Information**

This number is serviced during office hours.

Monday - Thursday 08:00 a.m. - 04:30 p.m.

Friday 08:00 a.m. - 03:00 p.m.

SECTION 2: Hazards identification**Classification of the substance or mixture**

Indications of danger : Corrosive, Harmful

R-phrases:

Harmful by inhalation, in contact with skin and if swallowed.

Causes burns.

May cause sensitization by skin contact.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Classification according to directive 67/548/EEC or 1999/45/EC:

Label elements

Danger symbols: C - Corrosive



C - Corrosive

Hazardous components which must be listed on the label

m-xylolenediamine

3-aminomethyl-3,5,5-trimethylcyclohexylamine

2-piperazin-1-ylethylamine

Trimethylhexamethylendiamin, Isomere

R phrases

20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
34	Causes burns.
43	May cause sensitization by skin contact.

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52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases

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

SECTION 3: Composition/information on ingredients**Mixtures****Hazardous components**

EC No.	Chemical name	Quantity
CAS No.	Classification	
Index No.	GHS classification	
REACH No.		
216-032-5	m-xylylenediamine	10-<25 %
1477-55-0	T, C, Xn R20/22-23-34-43-52-53	
	Acute Tox. 2, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H330 H302 H332 H314 H317 H412	
220-666-8	3-aminomethyl-3,5,5-trimethylcyclohexylamine	20-25 %
2855-13-2	Xn, C R21/22-34-43-52-53	
612-067-00-9	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H312 H302 H314 H317 H412	
202-859-9	benzyl alcohol	10-20 %
100-51-6	Xn R20/22	
603-057-00-5	Acute Tox. 4, Acute Tox. 4; H332 H302	
205-411-0	2-piperazin-1-ylethylamine	5-15 %
140-31-8	Xn, C R21/22-34-43-52-53	
612-105-00-4	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H312 H302 H314 H317 H412	
202-679-0	4-tert-butylphenol	10-15 %
98-54-4	Xi, N R37-41-51-53	
	Skin Irrit. 2, Eye Dam. 1, Repr. 2, STOT SE 3, Aquatic Chronic 2; H335 H318 H315 H361f H411	
247-134-8	Trimethylhexamethylendiamin, Isomere	1-<5 %
25620-58-0	C, Xn R22-34-43-52-53	
	Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H302 H314 H318 H317 H412	

Full text of R- and H-phrases: see section 16.

Further Information

Full text of R- and H-phrases: see section 16.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures**Description of first aid measures****General information**

In all cases of doubt, or when symptoms persist, seek medical advice.
Never give anything by mouth to an unconscious person or a person with cramps.

After inhalation

Remove casualty to fresh air and keep warm and at rest.
In case of irregular breathing or respiratory arrest provide artificial respiration.
In case of unconsciousness place in unconscious position and seek medical advice.
Maintain an open airway.
Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

After contact with skin

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap.
Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

After contact with eyes

Immediately get medical attention.
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.
Check for and remove any contact lenses. Continue to rinse for at least 10 minutes.
Chemical burns must be treated promptly by a physician.

After ingestion

Immediately get medical attention.
Rinse mouth thoroughly with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Let water be swallowed in little sips (dilution effect). Do not induce vomiting. Caution if victim vomits: Risk of aspiration! In case of unconsciousness place in unconscious position and seek medical advice. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms and effects, both acute and delayed

Following eye contact: Causes serious eye damage.
Following inhalation: Toxic by inhalation. Irritating to respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
After skin contact: Corrosive to the skin. Causes burns. May cause sensitization by skin contact.
After Ingestion: Harmful if swallowed. May cause burns to mouth, throat and stomach.

Indication of any immediate medical attention and special treatment needed

Information to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Treatment: Treat symptomatically. Following severe exposure the patient should be kept under medical review for at least 48 hours.

SECTION 5: Firefighting measures**Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO₂). Extinguishing powder. Water spray. alcohol resistant foam.

Extinguishing media which must not be used for safety reasons

High power water jet.

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Special hazards arising from the substance or mixture

In a fire or if heated, a pressure increase will occur and the container may burst.
During heating or in case of fire poisonous gases.
Can be released in case of fire: Carbon monoxide. Carbon dioxide. Nitrogen oxides (NOx).

Advice for firefighters

Special precautions for fire-fighters:
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Special protective equipment for fire-fighters:
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Provide adequate ventilation. Wear respiratory protection when in the presence of vapour, dust, and aerosols. Wear personal protection equipment.
For emergency responders: Wear personal protection equipment. See protective measures under point 7 and 8.

Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Small spill:
Stop leak if without risk. Move containers from spill area. Remove mechanically, placing in appropriate containers for disposal.
Large spill:
Stop leak if without risk. Move containers from spill area. Do not empty into drains or the aquatic environment. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the assimilated material according to the section on waste disposal.

Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage**Precautions for safe handling****Advice on safe handling**

Wear personal protection equipment. Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used. Do not eat, drink, smoke or sneeze at the workplace. Use only in well-ventilated areas. Do not breathe gas/fumes/vapour/spray. Handle and open container with care. Keep container tightly closed and in a well-ventilated place. Keep/Store only in original container.

Advice on protection against fire and explosion

Protect against: heat. frost. moisture.
Keep container tightly closed.

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Further information on handling

Keep locked up and out of the reach of children.

Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Only use containers approved for especially this product. Keep only in the original container in a cool, well-ventilated place. Protect containers against damage. Do not store together with: Food and animal feedingstuff

Advice on storage compatibility

Do not store together with: Acid.

Further information on storage conditions

Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place.

Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection**Control parameters****Exposure limits (EH40)**

CAS No.	Chemical name	ml/m ³	mg/m ³	F/ml	Category	Origin
98-54-4	4-tert-butylphenol	0,08	0,5		TWA (8 h) STEL (15 min)	
1477-55-0	m-xylylenediamine	0,1			TWA (8 h) STEL (15 min)	

Additional advice on limit values

Based on information valid at the time of compilation.

Exposure controls**Occupational exposure controls**

If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn.

Protective and hygiene measures

Wash hands before breaks and at the end of work. After work, wash hands and face. Wash contaminated clothing immediately. Wash contaminated clothing prior to re-use.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.
If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn.
Only use breathing apparatus with CE-label including the four-digit identification number.
Suitable respiratory protective equipment: Combination filter device (DIN EN 141)..

Hand protection

When handling chemical substances, chemical protective gloves must be worn with CE label including a four digit code.
Tested protective gloves are to be worn: Butyl rubber. NBR (Nitrile rubber). Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US). Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity.
In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves. Additional information can be found for instance at www.gisbau.de.

Eye protection

Tightly sealed safety glasses.

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Skin protection

Only wear fitting, comfortable and clean protective clothing.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties**Information on basic physical and chemical properties**

Physical state:	liquid:
Colour:	colourless
Odour:	Amine-like

Test method

pH-Value (at 20 °C):	11,0 - 11,5 (in aqueous solution)
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Changes in the physical state

Melting point:	Not available.
Boiling point:	207 °C
Sublimation point:	Not available.
Softening point:	Not available.
Flash point:	102 °C

Flammability

Solid:	Not available.
Gas:	Not available.
Lower explosion limits:	1 vol. %
Upper explosion limits:	10 vol. %
Ignition temperature:	395 °C

Auto-ignition temperature

Solid:	Not available.
Gas:	Not available.

Oxidizing properties

Not available.

Vapour pressure: (at 20 °C)	0,49 hPa
Density (at 23 °C):	~ 1,1 g/cm ³
Water solubility:	Not available.
Partition coefficient:	Not available.
Viscosity / dynamic: (at 25 °C)	~ 250 mPa·s
Viscosity / kinematic:	Not available.
Flow time:	Not available.
Vapour density:	Not available.
Evaporation rate:	Not available.
Solvent separation test:	Not available.
Solvent content:	Not available.

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Other information

Solid content:

Not available.

SECTION 10: Stability and reactivity**Reactivity**

Not available.

Chemical stability

The product is stable.

Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

No specific data.

Incompatible materials

No specific data.

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information**Information on toxicological effects****Toxicokinetics, metabolism and distribution**

Not available.

Acute toxicity

Data apply to the principal component.

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CAS No.	Chemical name				
	Exposure routes	Method	Dose	Species	h
1477-55-0	m-xylylenediamine				
	Acute oral toxicity	LD50	930 mg/kg	Rat.	
	Acute dermal toxicity	LD50	2000 mg/kg	Rabbit.	
	Acute inhalation toxicity	LC50	2,4 mg/l	Rat.	4
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine				
	Acute oral toxicity	LD50	1030 mg/kg	Ratte	
	Acute dermal toxicity	ATE	1100 mg/kg		
100-51-6	benzyl alcohol				
	Acute oral toxicity	LD50	1230 mg/kg	Ratte	
	Acute inhalation toxicity	ATE	11 mg/l		
140-31-8	2-piperazin-1-ylethylamine				
	Acute oral toxicity	ATE	500 mg/kg		
	Acute dermal toxicity	ATE	1100 mg/kg		
98-54-4	4-tert-butylphenol				
	Acute oral toxicity	LD50	2951 mg/kg	Rat.	
	Acute dermal toxicity	LD50	2288 mg/kg		
25620-58-0	Trimethylhexamethylendiamin, Isomere				
	Acute oral toxicity	LD50	910 mg/kg	Rat.	

Specific effects in experiment on an animal

Not available.

Irritation and corrosivity

Not available.

Sensitizing effects

Not available.

Severe effects after repeated or prolonged exposure

Not available.

Carcinogenic/mutagenic/toxic effects for reproduction

Not available.

Additional information on tests

Not available.

Empirical data on effects on humans

Not available.

May cause an allergic skin reaction.

Further information

Not available.

SECTION 12: Ecological information

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Toxicity

CAS No.	Chemical name				
	Aquatic toxicity	Method	Dose	Species	h
140-31-8	2-piperazin-1-ylethylamine				
	Acute fish toxicity	LC50	368 mg/l	Leuciscus idus	96
	Acute algae toxicity	ErC50	495 mg/l	Selenastrum capricornutum	72
	Acute crustacea toxicity	EC50	32 mg/l	Daphnia magna	48
98-54-4	4-tert-butylphenol				
	Acute fish toxicity	LC50	>1-10 mg/l	Oncorhynchus mykiss	96
	Acute algae toxicity	ErC50	>10-100 mg/l	Selenastrum capricornutum	72
	Acute crustacea toxicity	EC50	>1-10 mg/l	Daphnia magna	48
25620-58-0	Trimethylhexamethylendiamin, Isomere				
	Acute fish toxicity	LC50	1000 mg/l		96

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Partition coefficient n-octanol/water

CAS No.	Chemical name	Log Pow
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	1,9
100-51-6	benzyl alcohol	1,05
140-31-8	2-piperazin-1-ylethylamine	-1,48

Mobility in soil

Not available.

Results of PBT and vPvB assessment

Not available.

Other adverse effects

Not available.

Further information

Not available.

SECTION 13: Disposal considerations**Waste treatment methods****Advice on disposal**

Waste disposal according to official state regulations.

Handle contaminated packaging in the same way as the substance itself.

Waste disposal number of waste from residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other dangerous substances
Classified as hazardous waste.

Waste disposal number of used product

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080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other dangerous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

Waste disposal according to official state regulations.

SECTION 14: Transport information**Land transport (ADR/RID)**

UN number: 2735
UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.
(m-xylylenediamine)
Transport hazard class(es): 8
Packing group: III
Hazard label: 8
Classification code: C7
Special Provisions: 274
Limited quantity: LQ7
Transport category: 3
Hazard-no.: 80
Tunnel restriction code: E

Other applicable information (land transport)

E1

Environmental hazards

Dangerous for the environment: yes

Special precautions for user

Not available.

SECTION 15: Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.
Water contaminating class (D): 2 - water contaminating
Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Full text of R-phrases referred to under sections 2 and 3**

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
20/22 Harmful by inhalation and if swallowed.

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21/22	Harmful in contact with skin and if swallowed.
22	Harmful if swallowed.
23	Toxic by inhalation.
34	Causes burns.
37	Irritating to respiratory system.
41	Risk of serious damage to eyes.
43	May cause sensitization by skin contact.
51	Toxic to aquatic organisms.
52	Harmful to aquatic organisms.
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53	May cause long-term adverse effects in the aquatic environment.

Full text of H-Statements referred to under sections 2 and 3

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Further Information

* Data changed from previous versions

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)