

Material safety data sheet

Type 1000A1

Conforms to Regulation (EC) No. 1907/2006 (REACH),
Article 31

Revision: 02.03.2022

Replaces version from: 01.02.2021

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

1.1. Product identifier

Product name: Grouting compound type 1000A1 Comp. B, hardener
Product description: Grouting compound
Product code: 1000A1 Comp. B

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use: Hardener for epoxy resin
Identified use: Only for industrial and professional use

1.3. Details of the supplier of the safety data sheet

Name: Kistler Instrumente AG
Address: Eulachstrasse 22
District and Country: 8408 Winterthur, Switzerland

Contact: +41 52 224 11 11
info@kistler.com, www.kistler.com

1.4. Emergency telephone

National 24h phone number: 145
Swiss Tox Center: +41 44 251 51 51 (from abroad)

2. Hazard identification

2.1. Classification of the substance or mixture

Classification according to (EC) Regulation 1272/2008:

Physical hazards: -

Health hazards: Acute toxicity, category 4
H302 Harmful if swallowed
Skin corrosion, category 1A
H314 Causes severe burns and eye damage
Serious eye damage, category 1
H318 Causes serious eye damage
Skin sensitization, category 1A
H317 May cause an allergic skin reaction

Environmental hazards: -

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This information corresponds to the current state of knowledge. Kistler reserves the right to make technical changes. Liability for consequential damage resulting from the use of Kistler products is excluded.

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2.2. Label elements

Labelling according to (EC) regulation no. 1272/2008 [CLP/GHS]

Hazard pictograms:



Signal words:

Danger

Hazard statements:

H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage
H317: May cause an allergic skin reaction

Precautionary statements:

P201: Obtain special instructions before use.
P261: Avoid breathing dust / fume / gas / mist / vapours / spray.
P273: Avoid release to the environment.
P280: Wear protective gloves/ protective clothing / eye protection / face protection.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER / doctor
P501: Dispose of contents / container in accordance with local / regional / national / international.

Other hazards:

Trimethylhexane-1.6-diamine

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1%.
The product does not contain substances with endocrine disrupting properties in concentration $\geq 0.1\%$.

3. Composition/information on ingredients

3.1. Substances

Information not relevant.

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3.2. Mixtures

Declaration of ingredients according to CLP (EC) No 1272/2008:

Identification	CAS-No. / EC-No. / Index-No. / Registration-No.	Classification	Concentration [% w/w]
Trimethylhexane-1.6-diamine	25513-64-8 247-063-2 - 01-2119560598-25	Acute Tox. 4 H302, Skin Corr. 1A H314, Eye Dam. 1 H318, Skin Sens. 1A H317	60 ... 100
Toluene-4-sulphonic acid	104-15-4 203-180-0 - 01-2119538811-39	Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335	7 ... 13

The full wording of the hazard (H) phrases is given in section 16 of the sheet.

4. First aid measures

4.1. Description of first aid measures

Inhalation:	Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.
Skin contact:	Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
Eye contact:	Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
Ingestion:	Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms:	unknown
Risks:	unknown

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor:	Treat symptomatically.
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5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder, and water spray.

Unsuitable extinguishing equipment: None in particular

5.2. Special hazards arising from the substance or mixture

Hazards caused by exposure in the event of fire: Do not breathe combustion products.

5.3. Advice for firefighters

General information: Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

Special protective equipment: Normal firefighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes, and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

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7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well-ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available.

8. Exposure controls/personal protection

8.1. Control parameters

Health - Derived no-effect level - DNEL / DMEL:

Identification	Effects on	Route of exposure	Possible health hazards	Value
Trimethylhexane-1.6-diamine	Consumer	Oral	Chronic systemic	0.05 mg/kg bw/d
Toluene-4-sulphonic acid	Worker	Inhalation	Chronic systemic	53.6 mg/m ³
		Dermal	Chronic systemic	7.6 mg/kg bw/d
	Consumer	Oral	Chronic systemic	2.5 mg/kg bw/d
		Inhalation	Chronic systemic	8.7 mg/m ³
		Dermal	Chronic systemic	2.5 mg/kg bw/d

Predicted no-effect concentration - PNEC:

Identification	Environmental department	Value
Trimethylhexane-1.6-diamine	Freshwater	0.102 mg/l
	Marine water	0.01 mg/l
	Freshwater sediment	0.622 mg/kg
	Marine water sediment	0.062 mg/kg
	Water, intermittent release	0.315 mg/l
	Sewage treatment plant microorganisms	72 mg/l
	Soil	10 mg/kg

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Identification	Environmental department	Value
Toluene-4-sulphonic acid	Freshwater	0.073 mg/l
	Marine water	0.007 mg/l
	Fresh water sediment	0.058 mg/kg
	Marine water sediment	0.006 mg/kg
	Sewage treatment plant microorganisms	58 mg/l
	Soil	0.016 mg/kg

8.2. Exposure controls

Engineering controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

Personal protection

When choosing personal protective equipment, ask your chemical substance supplier for advice. Personal protective equipment must be CE marked, showing that it complies with applicable standards. Provide an emergency shower with face and eye wash station.

- Hand protection: Protect hands with category III work gloves (see standard EN 374). The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
- Eye protection: Wear protective with airtight goggles (see standard EN 166).
- Skin protection: Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
- Respiratory protection: If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required. Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited. If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

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Environmental exposure controls: The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Liquid
Colour:	Straw yellow
Odour:	Amine
Odour threshold:	No data available
pH:	11
Melting point/freezing point:	No data available
Initial boiling point:	> 200°C
Boiling range:	No data available
Flash point:	114°C
Evaporation rate:	No data available
Flammability of solids and gases:	No data available
Lower inflammability limit:	No data available
Upper inflammability limit:	No data available
Lower explosive limit:	No data available
Upper explosive limit:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	0.91
Solubility:	Partially miscible
Partition coefficient:	
n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	> 200°C
Viscosity:	16.5 - 22 cP (25°C)
Explosive properties:	No data available
Oxidising properties:	No data available

9.2. Other information

VOC (Directive 2010/75/EC): 10.00 % - 91.00 g/l

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10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

Trimethylhexane-1.6-diamine:

Stable in normal conditions of use and storage.

Toluene-4-sulphonic acid:

Stable in normal conditions of use and storage.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

Trimethylhexane-1.6-diamine:

Stable in normal conditions of use and storage.

Toluene-4-sulphonic acid:

Stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

Trimethylhexane-1.6-diamine:

Reacts violently with: acids, strong oxidising agents.

Toluene-4-sulphonic acid:

Stable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However, the usual precautions used for chemical products should be respected.

Trimethylhexane-1.6-diamine:

Avoid exposure to: heat

Toluene-4-sulphonic acid:

Avoid contact with: strong bases

10.5. Incompatible materials

Trimethylhexane-1.6-diamine:

Avoid contact with: strong acids, strong oxidising agents

Toluene-4-sulphonic acid:

Avoid contact with: strong acids, strong bases, strong oxidising agents

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10.6. Hazardous decomposition products

Trimethylhexane-1.6-diamine:

In decomposition develops: ammonia

Toluene-4-sulphonic acid:

In decomposition develops: nitric oxide, carbon oxides, sulphur oxides, toxic fumes.

11. Toxicological Information

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

Acute toxicity

Mixture

Acute oral toxicity LD50:	1011.11 mg/kg
Acute inhalative toxicity LC50:	Not classified (no significant component)
Acute dermal toxicity LD50:	Not classified (no significant component)

Substances

Trimethylhexane-1.6-diamine:

Acute oral toxicity: LD50 (male rat): 910 mg/kg

Toluene-4-sulphonic acid:

Acute oral toxicity:	LD50 (male rat): > 1,104 mg/kg
Acute dermal toxicity:	LD50 (rabbit): > 2,000 mg/kg
Acute inhalative toxicity:	LC50 (male/female rat) > 50 mg/l/8h

Skin corrosion/irritation

Corrosive for the skin

Serious eye damage/irritation

Causes serious eye irritation

Respiratory or skin sensitisation

Sensitising for the skin

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Germ cell mutagenicity

Does not meet the classification criteria for this hazard class

Carcinogenicity

Does not meet the classification criteria for this hazard class

Reproductive toxicity

Does not meet the classification criteria for this hazard class

STOT - Single exposure

Does not meet the classification criteria for this hazard class

STOT - Repeated exposure

Does not meet the classification criteria for this hazard class

Aspiration hazard

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it has negative effects on aquatic environment.

12.1. Toxicity

Trimethylhexane-1.6-diamine:

Toxicity Fish:	Chronic NOEC > 10.9 mg/l Danio rerio
Toxicity Crustacea:	Chronic NOEC 1.02 mg/l Daphnia magna
Toxicity Algae/Aquatic plants:	EC50 43.5 mg/l/72h Pseudokirchnerella subcapitata

Toluene-4-sulphonic acid:

Toxicity Fish:	LC50 > 500 mg/l/96h Leuciscus idus melanotus
Toxicity Crustacea:	EC50 > 103 mg/l/48h Daphnia magna
Toxicity Algae/Aquatic plants:	EC50 70 mg/l/72h Pseudokirchnerella subcapitata

12.2. Persistence and degradability

Trimethylhexane-1.6-diamine:

Solubility in water:	Miscible > 476000 mg/l
Degradability:	NOT rapidly degradable, 7% 28d

Toluene-4-sulphonic acid:

Solubility in water:	soluble 1154 mg/l
Degradability:	rapidly degradable, 54% 28d

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12.3. Bioaccumulative potential

Toluene-4-sulphonic acid:

Partition coefficient: n-octanol/water - 0.96

12.4. Mobility in soil

Trimethylhexane-1.6-diamine:

Partition coefficient: soil/water: 1.4

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1 %.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available.

13. Disposal considerations

13.1. Waste treatment methods

Product: Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations. Avoid littering. Do not contaminate soil, sewers and waterways. Waste transportation may be subject to ADR restrictions.

Contaminated packaging: Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR/RID:	UN 2327
IMDG:	UN 2327
IATA:	UN 2327

14.2. UN proper shipping name

ADR/RID:	TRIMETHYLHEXAMETHYLENEDIAMINES, SOLUTION
IMDG:	TRIMETHYLHEXAMETHYLENEDIAMINES, SOLUTION
IATA:	TRIMETHYLHEXAMETHYLENEDIAMINES, SOLUTION

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14.3. Transport hazard class(es)

ADR:	8
IMDG:	8
IATA:	8

14.4. Packing group

ADR/RID:	
Packing group:	III
Label:	8

IMDG:	
Packing group:	III
Label:	8

IATA:	
Packing group:	III
Label:	8

14.5. Environmental hazards

ADR/RID:	
Environmentally hazardous:	No

IMDG:	
Marine pollutant:	No

IATA:	
Environmentally hazardous:	No

14.6. Special precautions for user

ADR/RID:	
HIN-Kemler:	80
Limited Quantities:	5 L
Tunnel restriction code:	E
Special provision:	-

IMDG:	
EMS:	F-A, S-B
Limited Quantities:	5 L

IATA (Cargo):	
Maximum quantity:	60 L
Packaging instructions:	856

IATA (Passenger):	
Maximum quantity:	5 L
Packaging instructions:	852

IATA:	
Special provision:	A803

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14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC:	None
Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006:	Product: See Section 3
Substances in Candidate List (Art. 59 REACH):	On the basis of available data, the product does not contain any SVHC in percentage greater than 0.1%.
Substances subject to authorisation (Annex XIV REACH):	None
Regulation (EC) No. 2019/1148 - on the marketing and use of explosives precursors:	Not applicable
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:	None
Substances subject to the Rotterdam Convention:	None
Substances subject to the Stockholm Convention:	None
Healthcare controls:	Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical Safety Assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

16. Other information

Text of hazard (H) indications

Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1A	Skin sensitization, category 1A
H302	Harmful if swallowed.

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Legend

ADR	European Agreement concerning the carriage of Dangerous goods by Road
CAS-no.	Chemical Abstracts Service
CLP	EC Regulation 1272/2008
DNEL	Derived No Effect Level
EC50	Effective concentration (required to induce a 50% effect)
EG-no.	Identifier in ESIS (European archive of existing substances)
EMS	Emergency Schedule
GHS	Globally Harmonized System of classification and labeling of chemicals
IATA	International Air Transport Association Dangerous Goods Regulation
IMDG	International Maritime Code for dangerous goods
IMO	International Maritime Organization
Index-no.	Identifier in Annex VI of CLP
LC50	Lethal Concentration 50%
LD50	Lethal dose 50%
OEL	Occupational Exposure Level
PBT	Persistent, bioaccumulative, and toxic as REACH Regulation
PNEC	Predicted no effect concentration
REACH	EC Regulation 1907/2006
RID	Regulation concerning the international transport of dangerous goods by train
TLV	Threshold Limit Value
TWA	Time-weighted average exposure limit
VOC	Volatile organic Compounds
vPvB	Very Persistent and very Bioaccumulative as for REACH Regulation

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

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