

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 27.05.2025

Version number 3

Revision: 27.05.2025

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

1.1 Product identifier

Trade name: Cleaning spray type 1003

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

Product category PC35 Washing and cleaning products (including solvent based products)

Application of the substance / the mixture

Special cleaning agent for highly insulating parts such as plug connections and electronic components

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Kistler Instrumente AG
Eulachstrasse 22
8408 Winterthur, Schweiz

Further information obtainable from:

+1 716 691 5100

Monday to Friday 7 am – 5 pm (EST)

1.4 Emergency telephone number: Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

* SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS08 health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms GHS02, GHS07, GHS08, GHS09

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Signal word Danger**Hazard-determining components of labelling:**pentane
cyclohexane**Hazard statements**

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P271 Use only outdoors or in a well-ventilated area.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P321 Specific treatment (see on this label).

P331 Do NOT induce vomiting.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Additional information:

Restricted to professional users.

Buildup of explosive mixtures possible without sufficient ventilation.

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

* SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures**Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 109-66-0 EINECS: 203-692-4	pentane ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H336	50-100%
CAS: 110-82-7 EINECS: 203-806-2	cyclohexane ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	15-20%
CAS: 106-97-8 EINECS: 203-448-7	butane, pure ⚠ Flam. Gas 1, H220; ⚠ Acute Tox. 3, H331; Press. Gas (Comp.), H280	10-15%
CAS: 74-98-6 EINECS: 200-827-9	propane ⚠ Flam. Gas 1, H220; Press. Gas (Comp.), H280	5-10%
CAS: 75-28-5 EINECS: 200-857-2	isobutane ⚠ Flam. Gas 1, H220; Press. Gas (Comp.), H280	1-5%

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

* SECTION 4: First aid measures

4.1 Description of first aid measures**General information:** Immediately remove any clothing soiled by the product.**After inhalation:**

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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After skin contact:

Irritation. Repeated contact can lead to brittle or cracked skin.

If skin irritation continues, consult a doctor.

Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.**After swallowing:**

If symptoms persist consult doctor.

Do not induce vomiting! Rinse mouth and drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed May cause drowsiness and dizziness**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media**Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**5.2 Special hazards arising from the substance or mixture** Extremely flammable aerosol**5.3 Advice for firefighters****Protective equipment:**

Use self-contained breathing apparatus. Wear protective clothing to prevent eye or skin contact.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

6.2 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 sewage system.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.**Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.**7.2 Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:**

Store in a cool and well-ventilated place. Keep away from sources of ignition. Keep away from direct sunlight. Ensure that lighting and electrical equipment are not sources of ignition.

Observe official regulations on storing packagings with pressurised containers.

Information about storage in one common storage facility: Not required.**Further information about storage conditions:** Keep container tightly sealed.**7.3 Specific end use(s)** No further relevant information available.

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* SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information about design of technical facilities: No further data; see section 7.

Ingredients with limit values that require monitoring at the workplace:

CAS: 109-66-0 pentane

IOELV (EU) Long-term value: 3000 mg/m³, 1000 ppm

CAS: 110-82-7 cyclohexane

IOELV (EU) Long-term value: 700 mg/m³, 200 ppm

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

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.

Respiratory protection:

Respiratory protection recommended when the TLV limit is exceeded .

If ventilation is inadequate, wear a respirator. Suitable respiratory protection: Filter type A for organic gases and vapors.

Protection of hands:



Protective gloves

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

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

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

For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:

Butyl rubber, BR

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

Fluorocarbon rubber (Viton)

Butyl rubber, BR

Nitrile rubber, NBR

Not suitable are gloves made of the following materials: PVC gloves

Eye protection: Not required.

Body protection: Protective work clothing

* SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Aerosol
Colour:	Opaque
Odour:	Solvent-like

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pH-value:	Mixture is a gas.
Change in condition Initial boiling point and boiling range:	Not applicable, as aerosol.
Flash point:	Not applicable, as aerosol.
Flammability	Not applicable.
Ignition temperature:	Product is not selfigniting.
Explosive properties:	Pressurised container: May burst when heated.
Explosion limits: Lower: Upper:	1.2 Vol % 9.5 Vol %
Vapour pressure at 20 °C:	8300 hPa
Density: Relative density Vapour density Evaporation rate	Not determined. Not determined. Not determined. Not applicable.
Solubility in / Miscibility with water:	Not miscible or difficult to mix.
Solvent content: VOC (EC)	100.00 %
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2 Chemical stability The product is stable under normal conditions.

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid

Avoid contact with hot surfaces. Heat. No naked flames, no sparks. Remove all sources of ignition.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

CAS: 110-82-7 cyclohexane

Oral	LD50	12705 mg/kg (rat)
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CAS: 106-97-8 butane, pure

Inhalative	LC50/4 h	658 mg/l (rat)
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Primary irritant effect:

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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Additional toxicological information:**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** No CMR effects known.**Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT-single exposure**

May cause drowsiness or dizziness.

STOT-repeated exposure Based on available data, the classification criteria are not met.**Aspiration hazard**

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity**Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability** No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**Ecotoxicological effects:****Remark:** Toxic for fish**Other information:** Do not discharge into drains, surface waters or groundwater.**Additional ecological information:****General notes:**

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

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Toxic for aquatic organisms

12.5 Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods**Recommendation**

Must be specially treated adhering to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Waste disposal key: 16 05 04 - Gases in pressurised containers containing dangerous substances (including halons)**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number

ADR, IMDG, IATA

UN1950

14.2 UN proper shipping name

ADR

1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS

IMDG

AEROSOLS

IATA

AEROSOLS, flammable

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14.3 Transport hazard class(es)	
ADR	
	
Class	2 5F
Label	2.1
IMDG, IATA	
	
Class	2.1
Label	2.1
14.4 Packing group	
ADR, IMDG, IATA	Void
14.5 Environmental hazards:	Product contains environmentally hazardous substances:
Marine pollutant:	cyclohexane No
14.6 Special precautions for user	Warning: Gases.
Hazard identification number (Kemler code):	-
EMS Number:	F-D,S-U
Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
Transport category	2
Tunnel restriction code	D
IMDG	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity

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UN "Model Regulation":UN 1950 AEROSOLS, 2.2, ENVIRONMENTALLY
HAZARDOUS

SECTION 15: Regulatory information

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

Directive 2012/18/EU**Named dangerous substances - ANNEX I** None of the ingredients is listed.**Seveso category**

P3a FLAMMABLE AEROSOLS

E2 Hazardous to the Aquatic Environment

Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t**Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The 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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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.

Relevant phrases

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H331 Toxic if inhaled.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases – Category 1

Aerosol 1: Aerosols – Category 1

Press. Gas (Comp.): Gases under pressure – Compressed gas

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Skin Irrit. 2: Skin corrosion/irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

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Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

*** Data compared to the previous version altered.**

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