

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

· Product details

· **Trade name:** Hama -Computer- Compressed gas cleaner "Office-Clean" (Aerosol 400 ml (520))

· **Article number:** xxx49877

· Application of the substance / the preparation

Compressed gas cleaner
All purpose cleaner
According to trade name/product specification

· Manufacturer/Supplier:

Hama GmbH & Co. KG
Dresdner Str. 9
D-86653 Monheim

· Further information obtainable from:

Abteilung: Qualitätssicherung
QS_InfoSDB@hama.de
+49 9091 502-0

· Information in case of emergency:

+49 9091 502-6400 (Hama)
+49 89 19240 (Giftnotruf-München / ToxinEmergencyCall-Munich)

2 Hazards identification

· Classification of the substance or mixture

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC



F+; Extremely flammable

R12: Extremely flammable.

· Information concerning particular hazards for human and environment:

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Danger of icing / freezing in case of eye / skin contact with the liquid gas.
Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· Label elements

· Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:



F+ Extremely flammable

· Risk phrases:

12 Extremely flammable.

· Safety phrases:

2 Keep out of the reach of children.
23 Do not breathe aerosol.
51 Use only in well-ventilated areas.
16 Keep away from sources of ignition - No smoking.

· Special labelling of certain preparations:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

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Do not spray on a naked flame or any incandescent material.

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3 Composition/information on ingredients

· **Chemical characterization**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0	butane	 F+ R12	50-100%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5	propane	 F+ R12	25-50%
CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-00-0	isobutane	 F+ R12	2,5-10%

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

4 First aid measures

· **General information:** Take affected persons out into the fresh air.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

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

· **After swallowing:** Not applicable, as aerosol.

· **Information for doctor:**

· **The following symptoms may occur:** Danger of icing / freezing in case of eye / skin contact with the liquid gas.

5 Firefighting measures

· **Suitable extinguishing agents:**

Fire-extinguishing powder

ABC powder

Use fire extinguishing methods suitable to surrounding conditions.

· **For safety reasons unsuitable extinguishing agents:**

Water

Foam

Gaseous extinguishing agents

· **Special hazards caused by the substance, its products of combustion or resulting gases:**

Can form explosive gas-air mixtures.

Carbon monoxide (CO)

Danger of receptacles bursting because of high vapour pressure when heated.

· **Protective equipment:**

Do not inhale explosion gases or combustion gases.

Wear self-contained respiratory protective device.

Use fire extinguishing methods suitable to surrounding conditions.

· **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

· **Person-related safety precautions:**

Ensure adequate ventilation

Keep away from ignition sources.

Wear protective equipment. Keep unprotected persons away.

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- **Measures for environmental protection:**
 - No special measures required.
 - Prevent seepage into sewage system, workpits and cellars.
- **Measures for cleaning/collecting:**
 - Ensure adequate ventilation.
 - Allow to evaporate.
- **Additional information:**
 - 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:**
- **Information for safe handling:**
 - Use only in accordance with intended purpose.
 - Do not shake.
 - Use only in upstanding position - Liquid gas may escape and may cause freeze / material damage.
 - Use only in well ventilated areas.
 - Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
 - See section 15.
 - See Section 8 for information on personal protection equipment.
- **Information about fire - and explosion protection:**
 - Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
 - Do not spray onto a naked flame or any incandescent material.
 - Keep ignition sources away - Do not smoke.
 - Fumes can combine with air to form an explosive mixture.
 - Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Observe official regulations on storing packagings with pressurized containers.
 - Storage and clustering must be made according to official regulations.
 - Store only in the original receptacle.
- **Information about storage in one common storage facility:**
 - Storage and clustering must be made according to official regulations.
 - Due to regional regulations, follow VCI guidance on clustering of chemicals.
 - See section 10.
- **Further information about storage conditions:**
 - Store in cool, dry conditions in well sealed receptacles.
 - Protect from heat and direct sunlight.
 - Store receptacle in a well ventilated area.
- **Storage class:** 2B (VCI)

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:**
 - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Parameters refer to the product and its intended usage (usage/tradename - point 1 MSDS).
 - The usual precautionary measures are to be adhered to when handling chemicals.
 - Do not inhale gases / fumes / aerosols.
 - Avoid contact with the eyes and skin.
 - Keep away from foodstuffs, beverages and feed.

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Wash hands before breaks and at the end of work.

· **Respiratory protection:**

No special precautions are necessary if used correctly.
Not necessary if room is well-ventilated.

· **Protection of hands:** Not required.

· **Material of gloves:** Not required.

· **Penetration time of glove material:** Not required.

· **Eye protection:** No special precautions are necessary if used correctly.

9 Physical and chemical properties

· **General Information**

· **Appearance:**

Form: Aerosol
Compressed liquefied gas

Colour: Colourless

· **Odour:** Specific type

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: < -20°C

· **Flash point:** < -20°C

· **Ignition temperature:** ~ 235°C

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

Lower: 1,5 Vol %

Upper: 11,5 Vol %

· **Vapour pressure at 20°C:** ~ 3500 hPa

· **Density at 20°C:** 0,56 g/cm³

· **Solubility in / Miscibility with**

water: Not miscible or difficult to mix.

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

· **Materials to be avoided:**

· **Dangerous reactions**

Reacts with strong oxidizing agents.

Reacts with oxygen.

Danger of receptacles bursting because of high vapour pressure when heated.

· **Dangerous decomposition products:**

No dangerous decomposition products known.

See section 5.

· **Additional information:** See Section 7 for information on safe handling.

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11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product is a preparation, for which no experimentally determined toxicity data is available.
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- **Information about elimination (persistence and degradability):** Undetermined.
- **Behaviour in environmental systems:**
- **Mobility and bioaccumulation potential:** Undetermined.
- **Ecotoxicological effects:**
- **Acquatic toxicity:** Undetermined.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water

13 Disposal considerations

- **Product:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** See section 6.

14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 2 5F Gases.
- **Danger code (Kemler):** -
- **UN-Number:** 1950
- **Packaging group:** -
- **Hazard label:** 2.1
- **Description of goods:** 1950 AEROSOLS
- **Tunnel restriction code** D

- **Maritime transport IMDG:**



- **IMDG Class:** 2.1
- **UN Number:** 1950

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- **Label** 2.1
- **Packaging group:** -
- **EMS Number:** F-D,S-U
- **Marine pollutant:** No
- **Proper shipping name:** AEROSOLS

· **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 2.1
- **UN/ID Number:** 1950
- **Label** 2.1
- **Packaging group:** -
- **Proper shipping name:** AEROSOLS, flammable

15 Regulatory information

- **Labelling according to EU guidelines:**
- **Recommended additional labelling:**
 - Observe the remarks of the device manufacturer.
 - Before cleaning, disconnect device from the power supply and allow to cool.
 - Do not shake.
 - Only use in upstanding position – liquid gas may escape and cause freeze/material damage.
 - Disposal must be made according to official regulations.
- **Chemical safety assessment** A Chemical Safety Assessment has not been carried out.
- **National regulations:**
- **Information about limitation of use:** Employment restrictions must be observed.

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.

- **Relevant phrases**
 - R12 Extremely flammable.
- **Department issuing MSDS:** Abteilung: Qualitätssicherung
- **Contact:** Bereich: Chemie
- *** Data compared to the previous version altered.**