

1 Identification

- **Product identifier**
- **Trade name:** Hilti GC22
- **Relevant identified uses of the substance or mixture and uses advised against**
Gas can for use exclusively with the Hilti GX 120 tool.
- **Application of the substance / the mixture** Propellant for direct fastening tools.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Hilti, Inc.
5400 South 122nd East Ave.
US-Tulsa, OK 74146
Phone: (800) 879-8000
Fax: (800) 879-7000
Español: (800) 879-5000
- **Information department:**
df-hse@hilti.com
see section 16
- **Emergency telephone number:**
Chem-Trec
Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada)
Tel.: 703 527 3887 (Other countries)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Gas 1 H220 Extremely flammable gas.
Press. Gas H280 Contains gas under pressure; may explode if heated.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02 GHS04

- **Signal word** Danger
- **Hazard statements**
H220 Extremely flammable gas.
H280 Contains gas under pressure; may explode if heated.
- **Precautionary statements**
P102 Keep out of reach of children.
P251 Pressurized container: Do not pierce or burn, even after use.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211 Do not spray on an open flame or other ignition source.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- **Classification system**
- **NEPA ratings (scale 0-4)**



Health = 1
Fire = 4
Reactivity = 0

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

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3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:**

Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

75-28-5	isobutane	25-<50%
115-07-1	propene	25-<50%
74-98-6	propane liquefied	10-<12.5%

- **Additional information**

Gas can with 2 chambers:

1. Propane (pressure gas) - remains in the can after use
 2. Isobutane / dimethylether / ethanol / propylene / mineral oil (active agent), Buta-1,3-diene content less than 0,1%
- For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **General information** Immediately remove any clothing soiled by the product.
- **After inhalation**
Take affected persons into fresh air and keep quiet.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing** Seek immediate medical advice.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
Can form explosive gas-air mixtures.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
EN 12941 / EN 12942

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Remove persons from danger area.
Ensure adequate ventilation
Keep away from ignition sources
- **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
Allow to evaporate.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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7 Handling and storage

- **Handling**
- **Precautions for safe handling**
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**
Don't spray on a naked flames or any incandescent material
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Contents under pressure. Do not store in direct sunlight. Do not store above 100°F. Do not open or burn even after use.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Keep in a cool, dry and dark place; 41 °F / 5 °C to 77 °F / 25 °C.
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:**
Do not store with DX powder cartridges.
Store away from foodstuffs.
- **Further information about storage conditions:**
Do not transport in the passenger compartment or cabin of a motor vehicle.
Protect from heat and direct sunlight.
- **Storage class 2 A**
- **Specific end use(s)** Gas can for use exclusively with the Hilti GX 120 tool.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
No technical measures are necessary during normal use. In case of leakage of substances contained within Hilti GC22, the information below may be useful.

75-28-5 isobutane

TLV | Short-term value: 2370 mg/m³, 1000 ppm

115-07-1 propene

TLV | Long-term value: 860 mg/m³, 500 ppm

74-98-6 propane liquefied

PEL | Long-term value: 1800 mg/m³, 1000 ppmREL | Long-term value: 1800 mg/m³, 1000 ppm

TLV | refer to Appendix F: minimal oxygen content

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
The usual precautionary measures for handling chemicals should be followed.
Do not eat, drink, smoke or sniff while working.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
EN 374 / EN 388

· **Material of gloves**

Butyl rubber, BR

Recommended thickness of the material: ≥ 0.7 mm

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.

· **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.

· **Eye protection:**



Safety glasses

EN 166 / EN 170

· **Body protection:**



When using setting tools, sufficient ear protection must be worn.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Gaseous

Color: Colorless

· **Odor:** Sweetish

· **Odour threshold:** Not determined.

· **pH-value:** Not applicable

· **Change in condition**

Melting point/Melting range: Not determined.

Boiling point/Boiling range: Not applicable

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** Not applicable

· **Ignition temperature:** >460 °C (>860 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

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

· **Explosion limits:**

Lower: 1.7 Vol %

Upper: 11.1 Vol %

· **Vapor pressure at 20 °C (68 °F):** 8300 hPa (6226 mm Hg)

· **Density at 20 °C (68 °F):** 0.58 g/cm³ (4.84 lbs/gal) (DIN 51757)

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

dynamic: Not determined.

kinematic: Not determined.

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· **Other information**

No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
 - Danger of bursting
 - Reacts with oxidizing agents
 - Forms explosive gas mixture with air
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
 - Carbon monoxide and carbon dioxide
 - Nitrogen oxides (NO_x)

11 Toxicological information

- **Information on toxicological effects**
- **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:**
 - Do not inhale vapours, aerosol or spray. The inhalation of large quantities of the gasses can lead to narcotic effects. Long periods of exposure or repeated exposure can present a health hazard.
- **Carcinogenic categories**
- **NTP (National Toxicology Program)**
 - None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:** Not determined
- **Additional ecological information:**
- **General notes:**
 - Do not allow product to reach ground water, water course or sewage system.
 - Generally not hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
 - For disposal, local regulations issued by the authorities must be observed.
 - Use the entire contents of the can. The pressure gas (propane / butane) remains in the can.
 - Hand over to hazardous waste disposers.
 - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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· European waste catalogue:

14 06 03* other solvents and solvent mixtures

16 05 04* gases in pressure containers (including halons) containing dangerous substances

15 01 04 metallic packaging

· Uncleaned packagings:
· Recommendation: Dispose of packaging according to regulations on the disposal of packagings.

14 Transport information

· UN-Number
· DOT, ADR, IMDG, IATA UN3150

· UN proper shipping name
· DOT Hydrocarbon gas refills for small devices
· ADR UN3150 Hydrocarbon gas refills for small devices
· IMDG HYDROCARBON GAS REFILLS FOR SMALL DEVICES
· IATA DEVICES, SMALL, HYDROCARBON GAS POWERED WITH RELEASE DEVICE

· Transport hazard class(es)
· DOT

· Class 2 Gases

· Label 2.1

· ADR

· Class 2 6F Gases

· Label 2.1

· IMDG, IATA

· Class 2 Gases

· Label 2.1

· Packing group
· ADR, IMDG, IATA Void

· Environmental hazards:
· Marine pollutant: No

· Special precautions for user

Warning: Gases

· Danger code (Kemler):

23

· EMS Number:

F-D,S-U

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:
· DOT Limited Quantity - LQ

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· UN "Model Regulation": UN3150, UN3150 Hydrocarbon gas refills for small devices, 2.1

15 Regulatory information

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

· Section 355 (Extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

115-07-1 propene

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65:

· Chemicals known to cause cancer:

None of the ingredients are listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

115-07-1 propene

A4

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· Chemical safety assessment: not required.

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.

· Department issuing SDS:

Hilti Entwicklungsgesellschaft mbH

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· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European 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)

Flam. Gas 1: Flammable gases, Hazard Category 1

Press. Gas: Gases under pressure: Compressed gas

· * Data compared to the previous version altered.

US EN