

## 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 (Canada) Corp.  
2360 Meadowpine Boulevard  
Mississauga, Ontario L5N 6S2  
Phone: (800) 363-4458  
Fax: (800) 363-4459
- **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

- **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.
- **Hazard description:**
- **WHMIS classification**



A - Compressed gas



B1 - Flammable gas

- **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	Flam. Gas 1, H220; Press. Gas, H280	25-<50%
115-07-1	propene	Flam. Gas 1, H220; Press. Gas, H280	25-<50%
74-98-6	propane liquefied	Flam. Gas 1, H220; Press. Gas, H280	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**  
CO<sub>2</sub>, 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.

<b>75-28-5 isobutane</b>	
EV	Long-term value: 800 ppm
<b>115-07-1 propene</b>	
EL	Long-term value: 500 ppm
EV	Long-term value: 500 ppm
<b>74-98-6 propane liquefied</b>	
EL	Long-term value: 1000 ppm
EV	Long-term value: 1.000 ppm

- **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:  $\geq 0.7$  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/cm<sup>3</sup> (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 (NOx)

### 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
- IARC (International Agency for Research on Cancer)
  - None of the ingredients is listed.
- NTP (National Toxicology Program)
  - None of the ingredients is listed.
- OSHA-Ca (Occupational Safety & Health Administration)
  - 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.

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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.

· 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, TDG, IMDG, IATA UN3150

· UN proper shipping name

· DOT Hydrocarbon gas refills for small devices  
· TDG 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

· TDG (Transport dangerous goods):



· Class 2 6F Gases  
· Label 2.1

· IMDG, IATA



· Class 2 Gases  
· Label 2.1

· Packing group

· TDG, IMDG, IATA Void

· Environmental hazards:

· Marine pollutant: No

· Special precautions for user

· Danger code (Kemler): Warning: Gases  
23

· EMS Number: F-D,S-U

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

Not applicable.

· UN "Model Regulation":

UN3150, Hydrocarbon gas refills for small devices, 2.1

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### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture  
No further relevant information available.
- 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.

- **Relevant phrases**  
H220 Extremely flammable gas.  
H280 Contains gas under pressure; may explode if heated.
- **Department issuing MSDS:**  
Hilti Entwicklungsgesellschaft mbH  
Hiltistrasse 6  
D-86916 Kaufering  
Tel.: +49 8191 906310  
Fax: +49 8191 90176310  
df-hse@hilti.com
- **Contact:** Mechthild Krauter
- **Abbreviations and acronyms:**  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
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)  
WHMIS: Workplace Hazardous Materials Information System (Canada)  
Flam. Gas 1: Flammable gases, Hazard Category 1  
Press. Gas: Gases under pressure: Compressed gas