

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

- **Product identifier**
- **Trade name: Hilti GC12**
- **Relevant identified uses of the substance or mixture and uses advised against**
Gas can for use exclusively with the Hilti GX 100 tool.
- **Application of the substance / the preparation** Propellant for direct fastening tools.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Hilti SMN d.o.o.
Djordja Stanojevic 14
11070 Novi Beograd
Serbia Montenegro
Phone +381 11 3534400
Fax +381 11 3534401
- **Informing department:**
df-hse@hilti.com
see section 16
- **Emergency telephone number:**
Schweizerisches Toxikologisches Informationszentrum - 24 h Service
Tel.: 0041 / 44 251 51 51 (international)
- Hilti SMN d.o.o.
Phone +381 11 3534400
Fax +381 11 3534401

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Gas 1 H220 Extremely flammable gas.

Press. Gas H280 Contains gas under pressure; may explode if heated.

- **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:**
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 in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **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.

(Contd. on page 2)

Trade name: Hilti GC12

(Contd. of page 1)

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

3 Composition/information on ingredients

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

Mixture of the substances listed below with harmless additions.

- **Dangerous components:**

CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27	isobutane  F+ R12  Flam. Gas 1, H220;  Press. Gas, H280	25-<50%
CAS: 115-10-6 EINECS: 204-065-8	dimethyl ether  F+ R12  Flam. Gas 1, H220;  Press. Gas, H280	20-<25%
CAS: 115-07-1 EINECS: 204-062-1	propene  F+ R12  Flam. Gas 1, H220;  Press. Gas, H280	12,5-<20%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	propane liquefied  F+ R12  Flam. Gas 1, H220;  Press. Gas, H280	12,5-<20%
CAS: 64-17-5 EINECS: 200-578-6	ethanol  F R11  Flam. Liq. 2, H225	5-<10%
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32	butane, pure  F+ R12  Flam. Gas 1, H220;  Press. Gas, H280	2,5-<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** Instantly remove any clothing soiled by the product.
- **After inhalation**
Take affected persons into the open air and position comfortably
In case of unconsciousness bring patient into stable side position for transport.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly. If skin irritation persists, call a physician.
- **After eye contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- **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 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents** Water spray, carbon dioxide (CO₂), carbon dioxide blanket, foam, or dry powder.
- **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.
Burning produces irritant fumes

(Contd. on page 3)

Trade name: Hilti GC12

(Contd. of page 2)

- **Advice for firefighters**
- **Protective equipment:**
In the event of fire, wear self contained breathing apparatus
EN 12941 / EN 12942

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Bring persons out of danger.
Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.
Keep away from ignition sources
- **Environmental precautions:**
Do not allow to enter drainage system, surface or ground water.
Inform respective authorities in case product reaches water or sewage system.
- **Methods and material for containment and cleaning up:**
Allow material to evaporate.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Dispose of 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.
See Section 13 for information on disposal.

7 Handling and storage

- **Handling**
- **Precautions for safe handling**
Keep away from heat and direct sunlight.
Provide sufficient air exchange and/or exhaust in work rooms. When using, do not eat, drink or smoke. Ingestion, exposure to skin and eyes and inhalation of any general vapours should be avoided.
- **Information about protection against explosions and fires:**
Do not spray on flames or red-hot objects.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Beware: Container is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
Keep in a cool, dry and dark place; 5 °C to 25 °C.
Keep out of reach of children. Keep containers dry and tightly closed to avoid moisture absorption and contamination.
- **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 100 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:**

115-10-6 dimethyl ether

IOELV (EU) | Long-term value: 1920 mg/m³, 1000 ppm

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

(Contd. on page 4)

Trade name: Hilti GC12

(Contd. of page 3)

- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
 The usual precautionary measures should be adhered to general rules for handling chemicals.
 Do not eat, drink or smoke while working.
 Wash hands during breaks and at the end of the 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.

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
 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 trough 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
Colour:	Colourless
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not applicable
· Flash point:	Not applicable
· Inflammability (solid, gaseous)	Not applicable
· Ignition temperature:	Not determined
· Decomposition temperature:	Not determined.
· Self-inflammability:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/steam mixtures is possible.

(Contd. on page 5)

Trade name: Hilti GC12

(Contd. of page 4)

· Critical values for explosion:	
Lower:	1,7 Vol %
Upper:	18,6 Vol %
· Vapour pressure at 20 °C:	8300 hPa
· Density at 20 °C	0,67 g/cm ³ (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.
· 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 irritant effect.
- **Sensitization:** No sensitizing effect 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.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** None

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour 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:** Generally not hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

(Contd. on page 6)

Trade name: Hilti GC12

 · **Other adverse effects** No further relevant information available.

(Contd. of page 5)

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. Pressurizing gas and a small quantity of combustible liquefied gas remains in the can after use.

Hand over to disposers of hazardous waste.

 · **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**

 · **ADR, IMDG, IATA**

UN3150

 · **UN proper shipping name**

 · **ADR**

UN3150 HYDROCARBON GAS REFILLS FOR SMALL DEVICES

 · **IMDG, IATA**

HYDROCARBON GAS REFILLS FOR SMALL DEVICES

 · **Transport hazard class(es)**

 · **ADR**

 · **Class**

2 6F Gases.

 · **Label**

2.1

 · **IMDG, IATA**

 · **Class**

2.1

 · **Label**

2.1

 · **Packing group**

 · **ADR, IMDG**

Void

 · **Environmental hazards:**

 · **Marine pollutant:**

No

 · **Special precautions for user**

Warning: Gases.

 · **Kemler Number:**

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:**

 · **ADR**

 · **Limited quantities (LQ)**

0

 · **Transport category**

2

 · **Tunnel restriction code**

D

(Contd. on page 7)

Trade name: Hilti GC12

(Contd. of page 6)

· Number/Letter:

· UN "Model Regulation": UN3150, HYDROCARBON GAS REFILLS FOR SMALL DEVICES, 2.1

15 Regulatory information

· Chemical safety assessment: not required.

16 Other information

These data are based on our present knowledge. However, they 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.

R11 Highly flammable.

R12 Extremely flammable.

· **Department issuing data specification sheet:**

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:**

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

IATA: International Air Transport Association

GHS: Globally Harmonized 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)

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