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
  NFPA ratings (scale 0-4)
  Health = 1
  Fire = 4
  Reactivity = 0
- 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 nonhazardous additions.

- Dangerous components:
<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-28-5 isobutane</td>
<td>25-%&lt;50%</td>
</tr>
<tr>
<td>115-07-1 propene</td>
<td>25-%&lt;50%</td>
</tr>
<tr>
<td>74-98-6 propane liquefied</td>
<td>10-%&lt;12.5%</td>
</tr>
</tbody>
</table>

- 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.

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.

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.
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 incandecent 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.

<table>
<thead>
<tr>
<th>Compound</th>
<th>TLV Short-term value</th>
<th>TLV Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-28-5 isobutane</td>
<td>2370 mg/m³, 1000 ppm</td>
<td>860 mg/m³, 500 ppm</td>
</tr>
<tr>
<td>115-07-1 propene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>74-98-6 propane liquefied</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

· 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.
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 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

### 9.1 Information on basic physical and chemical properties

#### 9.1.1 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.

#### 9.1.2 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.

### 9.2 Viscosity

- **Dynamic:** Not determined.
- **Kinematic:** Not determined.
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
    None of the ingredients is listed.

· 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.

(Contd. on page 6)
### 14 Transport information

<table>
<thead>
<tr>
<th>DOT</th>
<th>ADR</th>
<th>IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-Number</td>
<td>DOT, ADR, IMDG, IATA</td>
<td>UN3150</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>Hydrocarbon gas refills for small devices</td>
<td>UN3150 Hydrocarbon gas refills for small devices</td>
</tr>
<tr>
<td></td>
<td>HYDROCARBON GAS REFILLS FOR SMALL DEVICES</td>
<td>HYDROCARBON GAS REFILLS FOR SMALL DEVICES</td>
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<td>Transport hazard class(es)</td>
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<tr>
<td>DOT</td>
<td>Class</td>
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<td>Label</td>
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</tr>
<tr>
<td>ADR</td>
<td>Class</td>
<td>2 6F Gases</td>
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<td>Label</td>
<td>2.1</td>
</tr>
<tr>
<td>IMDG, IATA</td>
<td>Class</td>
<td>2 Gases</td>
</tr>
<tr>
<td></td>
<td>Label</td>
<td>2.1</td>
</tr>
<tr>
<td>Packing group</td>
<td>ADR, IMDG, IATA</td>
<td>Void</td>
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<tr>
<td>Environmental hazards:</td>
<td>Marine pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Warning: Gases</td>
<td></td>
</tr>
<tr>
<td>Danger code (Kemler):</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>EMS Number:</td>
<td>F-D,S,U</td>
<td></td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>Transport/Additional information:</td>
<td>DOT</td>
<td>Limited Quantity - LQ</td>
</tr>
</tbody>
</table>
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.
  - **Cancerogenuity 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 Entwicklungsgeellschaft mbH
  Hiltistrasse 6
  D-86916 Kaufering
  Tel.: +49 8191 906310
  Fax: +49 8191 90176310
df-hse@hilti.com
- **Contact:** Mechthild Krauter
- **Date of preparation / last revision** 05/18/2015 / 22
- **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.