

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

- **Product identifier**
- **Trade name:** **Hilti HVU-G/EA**
- **Container size** Capsule weight: 12 to 292 g
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Adhesive anchor capsule for anchor fastening in concrete
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Hilti Japan  
2-6-20 Chigasaki  
JP-Tsuzuki-ku, Yokohama City 224-8550  
Kanagawa Prefecture south  
  
Hours of Customer Service  
(Excluding holidays) 8:30 to 18:30 Monday to Friday  
TEL: 0120-66-1159  
FAX: 0120-23-2953  
E-mail: hiltijapan@hilti.com
- **Informing department:**  
anchor.hse@hilti.com  
see section 16
- **Emergency telephone number:**  
Schweizerisches Toxikologisches Informationszentrum - 24 h Service  
Tel.: 0041 / 44 251 51 51 (international)
- Hilti Japan  
(Excluding holidays) 8:30 to 18:30 Monday to Friday  
TEL: 0120-66-1159  
FAX: 0120-23-2953

## 2 Hazards identification

- **Classification of the substance or mixture**



flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



health hazard

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

· **GHS label elements** The product is classified and labelled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS07



GHS08

**Trade name: Hilti HVU-G/EA**

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- **Signal word** Danger
- **Hazard-determining components of labelling:**  
Styrol  
Dibenzoyl peroxide
- **Hazard statements**  
H226 Flammable liquid and vapour.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H304 May be fatal if swallowed and enters airways.
- **Precautionary statements**  
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P260 Do not breathe vapours.  
P363 Wash contaminated clothing before reuse.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:**  
2-component glass capsule, contains:  
Vinylester resin, styrene, inorganic filler  
Dibenzoyl peroxide, phlegmatized

Mixture of the substances listed below with harmless additions.

· **Dangerous components:**

100-42-5	Styrol ⚠ Flam. Liq. 3, H226; ⚠ STOT RE 1, H372; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	10 - <20%
94-36-0	Dibenzoyl peroxide ⚠ Org. Perox. B, H241; ⚠ Eye Irrit. 2A, H319; Skin Sens. 1, H317	2 - 5%

- **SVHC** None
- **Additional information** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

- **Description of first aid measures**
- **After inhalation** Take affected persons into the open air and position comfortably
- **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 (CO<sub>2</sub>), 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**  
Nitrogen oxides (NO<sub>x</sub>)

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- Carbon monoxide (CO)  
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **Advice for firefighters**
- **Protective equipment:** In the event of fire, wear self contained breathing apparatus

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Keep away from ignition sources  
Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.
- **Environmental precautions:** Do not allow product to reach sewage system or water bodies.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 8 for information on personal protection equipment.

## 7 Handling and storage

- **Handling**
- **Precautions for safe handling**  
The usual precautionary measures should be adhered to general rules for handling chemicals.  
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.  
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).  
Keep away from heat and direct sunlight.  
Observe the capsule expiration date: See date printed on the sales packaging (box).
- **Information about protection against explosions and fires:**  
Protect from heat.  
Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**  
Store in a cool (+5 °C to +25 °C), dry and dark place only in the original packaging.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Protect from heat and direct sunlight.
- **Specific end use(s)** Adhesive anchor capsule for anchor fastening in concrete

## 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:**

100-42-5 styrene

OEL (Japan) 85 mg/m<sup>3</sup>, 20 ppm

- **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.  
Be sure to clean skin thoroughly after work and before breaks.  
Keep away from foodstuffs, beverages and food.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**  
Not necessary if room is well-ventilated.  
In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.
- **Recommended filter device for short term use:** Filter AX

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· **Protection of hands:**



Protective gloves

EN 374 / EN 388

Avoid direct contact with the chemical/ the product/ the preparation by organizational measures.

If only a short-term loading of the glove material by splashes is expected, tricoted gloves with higher wearability for the better acceptance of the users are recommended.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves** Nitrile rubber, NBR

· **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:**



Tightly sealed safety glasses.

EN 166 / EN 170

· **Body protection:**



Protective work clothing.

**9 Physical and chemical properties**

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

· **General Information**

· **Appearance:**

**Form:** Fluid  
**Colour:** resin: yellowish liquid  
hardener: white powder

· **Odour:** Aromatic

· **pH-value:** Not applicable

· **Change in condition**

**Melting point/Melting range:** Not determined  
**Boiling point/Boiling range:** Not determined

· **Flash point:** 34 °C (DIN 53213)

· **Ignition temperature:** 480 °C

· **Decomposition temperature:** Component A: not relevant  
Component B: + 55 °C (SADT)

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

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

· **Critical values for explosion:**

**Lower:** 1,2 Vol %  
**Upper:** 8,9 Vol %

· **Vapour pressure at 20 °C:** 7,1 hPa

· **Density at 20 °C** resin 1,1 g/cm<sup>3</sup> (DIN 51757)

· **Relative density** Not determined

· **Vapour density** Not determined

· **Evaporation rate** Not determined

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- |  |  |
|--|--|
| · 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                             |
| · Solvent separation test                  | Not determined                             |
| · Solvent content:                         |  |
| Organic solvents:                          | VOC 9,0 %                                  |
| Water:                                     | 0,0 %                                      |
| · 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** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

### 100-42-5 styrene

Oral	LD50	5000 mg/kg (rat)
Inhalative	LC50/4 h	24 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritant effect.
- **Sensitization:** Sensitization possible by skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:  
Harmful  
Irritant

## 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.
- **Additional ecological information:**
- **According to recipe contains the following heavy metals and compounds according to EC guideline NO. 76/464 EC:**  
None
- **General notes:** Do not allow product to reach ground water, water bodies or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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

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### 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation**

For disposal, local regulations issued by the authorities must be observed.  
Unusable foil capsules e.g. if expiry date has been exceeded, should be disposed of as hazardous waste material under observance of the official regulations.  
After curing, the product can be disposed of with household waste.

· **European waste catalogue**

08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances
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· **Uncleaned packagings:**

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

### 14 Transport information

· **UN-Number**

· **ADR, IMDG, IATA** 3269

· **UN proper shipping name**

· **IMDG, IATA** Polyester resin kit

· **Transport hazard class(es)**

· **ADR, IMDG, IATA**

· **Class** 3 Flammable liquids.

· **Packing group**

· **ADR, IMDG, IATA** III

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user**

Warning: Flammable liquids.

· **EMS Number:**

F-E,S-D

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

Not applicable.

· **Transport/Additional information:**

available oxygen content < 1 %

· **ADR**

· **Tunnel restriction code**

E

· **Remarks:**

Limited quantity: LQ 7

· **IMDG**

Limited Quantity (LQ)

· **IATA**

Packing Instruction No. 370

TRANSPORT ONLY ALLOWED WITH EXEMPTION OF STATES CONCERNED. STATES OF ORIGIN, OPERATOR, TRANSIT, OVERFLIGHT AND DESTINATION.  
SEE ICAO-TI 1.1.1.3 OR IATA-DGR CHAPTER 1.2.6

· **HS-Code:**

3214 10 10: Glaziers' putty, grafting putty, resin cements, caulking compounds and other mastics

### 15 Regulatory information

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

· **National regulations**

Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work. Article 12 Training of workers

· **Information about limitation of use:**

Employment restrictions concerning young persons must be observed.

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Employment restrictions concerning pregnant and lactating women must be observed.  
· **Chemical safety assessment:** not required.

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## 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**

- H226 Flammable liquid and vapour.
- H241 Heating may cause a fire or explosion.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H372 Causes damage to organs through prolonged or repeated exposure.

### · **Department issuing data specification sheet:**

Hilti Entwicklungsgesellschaft mbH  
Hiltistrasse 6  
D-86916 Kaufering  
Tel.: +49 8191 906310  
Fax: +49 8191 90176310  
e-mail: anchor.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  
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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
Flam. Liq. 3: Flammable liquids, Hazard Category 3  
Org. Perox. B: Organic Peroxides, Type B  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A  
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3  
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1  
Asp. Tox. 1: Aspiration hazard, Hazard Category 1

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