

GC FX 3

Safety Data Sheet

According to the Singapore standard SS 586-1-2014

Version: 1.0

Supersedes:

Revision date: 08.04.2020

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

1.1. Product identifier

Generic name	GC FX 3
Product code	BU Direct Fastening
Generic name	GC FX 3

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use	Gas can for use exclusively with the Hilti FX 3-A tool.
Restrictions on use	For professional use only

1.4. Supplier's details

Supplier

Hilti Far East Private Ltd.
No 20 Harbour Drive,
#06-06/08 PSA Vista
117612 Singapore - Singapur
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH
Hiltistrasse 6
86916 Kaufering - Deutschland
T +49 8191 906310 - F +49 8191 90176310
df-hse@hilti.com

1.5. Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +65 6777 7887
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Physical hazards	Gases under pressure : Compressed gas
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2.2. Label elements

Hazard pictograms (GHS SG)



GHS04

Signal word (GHS SG)

Warning

Hazard statements (GHS SG)

H280 - Contains gas under pressure; may explode if heated.

Precautionary statements

Prevention

Do not pierce or burn, even after use. (P251)

Storage

Store in a dry place. (P402)

Store in a well-ventilated place. (P403)

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. (P410+P412)

2.3. Other hazards

Other hazards which do not result in classification

Asphyxiant in high concentrations

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Concentration(%)	Formula	Product identifier
carbon dioxide, liquefied, under pressure	10 - 25	CO ₂	(CAS-No.) 124-38-9 (EC-No.) 204-696-9 (EC Index-No.)
argon, compressed	>= 80	Ar	(CAS-No.) 7440-37-1 (EC-No.) 231-147-0 (EC Index-No.)

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

Asphyxiant in high concentrations. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped. Low concentrations of CO₂ cause increased respiration and headache.

Skin contact

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water.

Eye contact

Rinse immediately with plenty of water. Rinse eyes with water as a precaution.

Ingestion

Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects

Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation

Breathing difficulties.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

The product itself does not burn. Use extinguishing agent suitable for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Explosion hazard

Contains gas under pressure; may explode if heated.

5.3. Special Protective actions for the fire fighters

Firefighting instructions

In case of fire: stop leak if safe to do so. Continue water spray from protected position until container stays cool.

Protection during firefighting

Wear recommended personal protective equipment.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures Evacuate area. Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment Do not attempt to take action without suitable protective equipment.

Emergency procedures Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Provide adequate ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling Ensure good ventilation of the work station. Pressurized container: Do not pierce or burn, even after use. Damaged valves should be reported immediately to the supplier. Damaged cylinders should be handled by specialists only. Carefully comply with the instructions for use.

Hygiene measures Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions Store at temperatures not exceeding 50 °C. Protect from sunlight. Store in a well-ventilated place. Keep cool. Store in a dry place.

Incompatible products Strong acids. Strong bases. Combustible materials.

Incompatible materials Sources of ignition. Direct sunlight. Heat sources.

Storage temperature -20 - 50 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL PEL (mg/m³) 9000 mg/m³

OEL PEL (ppm) 5000 ppm

OEL STEL (mg/m³) 54000 mg/m³

OEL STEL (ppm) 30000 ppm

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls Ensure good ventilation of the work station. Systems under pressure should be regularly checked for leakages.

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8.4. Personal protective equipment

Eye protection	Safety glasses
Environmental exposure controls	No specific measures are required provided the product is handled in accordance with the general rules of occupational hygiene and safety. Avoid release to the environment.
Consumer exposure controls	Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Gas
Colour	Colourless.
Odour	odourless.
Odour threshold	No data available
pH	Not applicable
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Solubility	No data available.
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive properties	Not applicable.
Oxidising properties	Not applicable.
Explosive limits	No data available

9.2. Other information

Gas group	Compressed gas
Other properties	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Moisture.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Effects on humans

Acute toxicity (oral) Not classified

Acute toxicity (dermal) Not classified

Acute toxicity (inhalation) Not classified

11.2. Acute toxicity

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Oral	Rat	LD ₅₀	No data available
	Mouse	LD ₅₀	No data available
Inhalation	Rat	LC ₅₀	No data available
	Mouse	LC ₅₀	No data available
Dermal	Rabbit	LD ₅₀	No data available
	Mouse	LD ₅₀	No data available

11.3. Skin corrosion/irritation - Description

No data available

11.4. Serious eye damage/eye irritation - Description

No data available

11.5. Skin or Respiratory sensitization - Description

No data available

11.6. Germ cell mutagenicity - Description

No data available

11.7. Carcinogenicity - Description

No data available

11.8. Reproductive toxicity - Description

No data available

11.9. Specific target organ toxicity (single exposure) - Description

No data available

11.10. Specific target organ toxicity (repeated exposure) - Description

No data available

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11.11. Aspiration hazard - Description

No data available

11.12. Other health hazard

No data available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Not classified
Other information	Avoid release to the environment.

carbon dioxide, liquefied, under pressure (124-38-9)	
LC50 fish 1	35 mg/l (96 h, Salmo gairdneri, Literature study, Lethal)

12.2. Persistence and degradability

GC FX 3	
Persistence and degradability	Not established.
carbon dioxide, liquefied, under pressure (124-38-9)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
argon, compressed (7440-37-1)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

carbon dioxide, liquefied, under pressure (124-38-9)	
Log Pow	0.83 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
argon, compressed (7440-37-1)	
Log Pow	0.74 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

carbon dioxide, liquefied, under pressure (124-38-9)	
Ecology - soil	Not applicable (gas).

12.5. Results of PBT and vPvB assessment

Component	
carbon dioxide, liquefied, under pressure (124-38-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

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- Transport by sea

Special provisions (IMDG)	274
Limited quantities (IMDG)	120 ml
Packing instructions (IMDG)	P200
EmS-No. (Fire)	F-C
EmS-No. (Spillage)	S-V
Stowage category (IMDG)	A
MFAG-No	126

- Air transport

PCA packing instructions (IATA)	200
PCA max net quantity (IATA)	75kg
CAO packing instructions (IATA)	200
Special provisions (IATA)	A202

- Rail transport

Special provisions (RID)	274, 655, 662
Limited quantities (RID)	120ml
Packing instructions (RID)	P200
Carriage prohibited (RID)	No

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

SECTION 15: Regulatory information

15.1. National regulations

No data available

15.2. International Regulations

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Press. Gas (Comp.) H280

Full text of H statements : see section 16

15.3. Chemical inventory status

No additional information available

SECTION 16: Other information

Abbreviations and acronyms

European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. European Agreement concerning the International Carriage of Dangerous Goods by Road. Acute Toxicity Estimate. Bioconcentration factor. Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008. International Agency for Research on Cancer. International Air Transport Association. International Maritime Dangerous Goods. Median lethal concentration. Organisation for Economic Co-operation and Development. Persistent Bioaccumulative Toxic. Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. Regulations concerning the International Carriage of Dangerous Goods by Rail. Safety Data Sheet. Very Persistent and Very Bioaccumulative.

Press. Gas (Comp.)	Gases under pressure : Compressed gas
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
H280	Contains gas under pressure; may explode if heated.



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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.