



GC FX 3

Safety Data Sheet

according to GB/T 16483 and GB/T 17519

Version 3.1

Revision date: 2025/09/03

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Supersedes: 2023/12/12

SECTION 1 Chemical product and company identification

Product identifier	
Product form	Mixture
Name	GC FX 3
Product code	BU Direct Fastening
Chemical Chinese name	一次性充装瓶 GC FX 3
Chemical English name	-
Recommended use of the chemical	Gas can for use exclusively with the Hilti FX 3-A tool. For professional use only

Details of the supplier of the safety data sheet

Supplier	Department issuing data specification sheet
Hilti (China) Ltd. 8F, Tower 2, No.58 Yao Yuan Rd. Pudong District 200126 Shanghai - China T +86 21 6016 7316	Hilti AG Feldkircherstraße 100 9494 Schaan - Liechtenstein T +423 234 2111 product.compliance-direct.fastening@hilti.com

Emergency telephone number

Emergency number	Emergency CONTACT (24-Hour-Number) GBK GmbH Global Regulatory Compliance +49 (0)6132-84463
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Country	Organisation/Company	Address	Emergency number
China	中国境内化学事故应急咨询电话 / chemical accident emergency consultation service hotline (24/7)		+86 532 83889090

SECTION 2 Hazards identification

Emergency overview

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SECTION 4 First-aid measures

Description of necessary 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)
First-aid measures after 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 CO ₂ cause increased respiration and headache
First-aid measures after 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
First-aid measures after eye contact	Rinse immediately with plenty of water. Rinse eyes with water as a precaution
First-aid measures after ingestion	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell

Most important symptoms/effects

Symptoms/effects	Not expected to present a significant hazard under anticipated conditions of normal use
Symptoms/effects after inhalation	Respiratory complaints

Advices for first aid responders

First aid workers will be equipped with suitable personal protective equipment.

Notes for the doctor

Other medical advice or treatment	Treat symptomatically
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SECTION 5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media	The product is non-combustible Use extinguishing agent suitable for surrounding fire
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Unsuitable extinguishing
media

No additional information available

Specific hazards

Explosion hazard

Contains gas under pressure; may explode if heated.

Advice for firefighters and protective measures

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

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

General measures

Evacuate area.
Mechanically ventilate the spillage area

Personal Precautions,
Protective Equipment and
Emergency Procedures

Do not attempt to take action without suitable
protective equipment
Ventilate area

For non-emergency personnel

Emergency procedures

Evacuate area.
Ventilate spillage area

For emergency responders

Protective equipment

Do not attempt to take action without suitable
protective equipment
For further information refer to section 8: "Exposure
controls/personal protection"

Emergency procedures

Ventilate area

Environmental precautions

Avoid release to the environment

Methods and material for containment and cleaning up

Methods for cleaning

No additional information available

For containment

No additional information available

Prevention measures for secondary accidents

Prevention Measures for
Secondary Accidents

No additional information available

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SECTION 7 Handling and storage

Handling

Precautions for safe handling	Ensure good ventilation of the work station Pressurized container: Do not pierce or burn, even after use. Damaged cylinders should be handled by specialists only
Hygiene measures	Carefully comply with the instructions for use Do not eat, drink or smoke when using this product. Always wash hands after handling the product
Local and general ventilation	No additional information available

Storage

Storage conditions	Protect from sunlight. Store in a well-ventilated place. Keep cool. Store in a well-ventilated place.
Material used in packaging/containers	No additional information available
Incompatible products	Strong acids. Strong bases. Combustible materials.
Incompatible materials	Sources of ignition. Direct sunlight. Heat sources.
Storage temperature	-20 - 50 ° C

SECTION 8 Exposure controls / Personal protection equipment

Occupational exposure limits

Carbon dioxide (124-38-9)	
China - Occupational Exposure Limits	
Local name	二氧化碳 # Carbon dioxide
OEL PC-TWA	9000 mg/m ³
OEL PC-STEL	18000 mg/m ³
Regulatory reference	GBZ 2.1-2019

Biological limit values

No additional information available

Monitoring methods

No additional information available

Appropriate engineering controls

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

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Personal protective equipment

Personal protective equipment	Avoid all unnecessary exposure
Thermal hazard protection	No information available
Environmental exposure controls	No specific measures are required provided the product is handled in accordance with the general rules of occupational hygiene and safety
Consumer exposure controls	Avoid release to the environment.
Other information	Avoid contact during pregnancy/while nursing.
Hand protection	Do not eat, drink or smoke during use
Eye protection	Not required for normal conditions of use
	Safety glasses

Type	Field of application	Characteristics	Standard
Safety glasses.		clear.	EN 166, EN 170.

Skin and body protection	No additional information available
Respiratory protection	Keep self contained breathing apparatus readily available for emergency use.
Personal protective equipment symbol(s)	



SECTION 9 Physical and chemical properties

Physical state	Gas
Appearance	No data available
Colour	Colourless
Odour	odourless
pH	Not applicable
Other properties	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level
Melting point	Not applicable
Freezing point	Not applicable
Boiling point	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
Flammability	Non flammable
Vapour pressure	Not available
Vapour pressure at 50° C	Not available
Relative vapour density at 20° C	No data available
Density	No data available
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available

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Lower explosion limit	No data available
Upper explosion limit	No data available
Radioactive	No
Explosive properties	Not applicable
Oxidising properties	Not applicable
Particle size	Not applicable

SECTION 10 Stability and reactivity

Chemical stability	Stable under normal conditions
Reactivity	The product is non-reactive under normal conditions of use, storage and transport
Possibility of hazardous reactions	No dangerous reactions known under normal conditions of use
Conditions to avoid	Direct sunlight. Extremely high or low temperatures. Moisture
Incompatible materials	No additional information available
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced
Other properties	No additional information available

SECTION 11 Toxicological information

Acute toxicity

Acute toxicity (oral)	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	Not classified (Based on available data, the classification criteria are not met)

Skin corrosion/irritation

Skin corrosion/irritation	Not classified (Based on available data, the classification criteria are not met)
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pH	Not applicable
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Serious eye damage/eye irritation

Serious eye damage/irritation	Not classified (Based on available data, the classification criteria are not met)
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pH	Not applicable
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Respiratory or skin sensitisation

Respiratory or skin sensitisation	Not classified (Based on available data, the classification criteria are not met)
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Germ cell mutagenicity

Germ cell mutagenicity	Not classified (Based on available data, the classification criteria are not met)
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Carcinogenicity

Carcinogenicity	Not classified (Based on available data, the classification criteria are not met)
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Reproductive toxicity

Reproductive toxicity	Not classified (Based on available data, the classification criteria are not met)
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STOT - single exposure

STOT - single exposure	Not classified (Based on available data, the classification criteria are not met)
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STOT - repeated exposure

STOT - repeated exposure	Not classified (Based on available data, the classification criteria are not met)
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Aspiration hazard

Aspiration hazard	Not applicable
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SECTION 12 Ecological information

Ecotoxicity

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 (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	Not classified (Based on available data, the classification criteria are not met)

Carbon dioxide (124-38-9)

LC50 - Fish [1]	35 ppm (96 h; Salmo gairdneri; Literature data)
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Partition coefficient n-octanol/water (Log Pow)	0.83 (Measured)
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argon (7440-37-1)

Partition coefficient n-octanol/water (Log Pow)	0.74 (Measured)
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Persistence and degradability

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Persistence and degradability	Not established
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Carbon dioxide (124-38-9)	
Persistence and degradability	Not applicable
argon (7440-37-1)	
Persistence and degradability	Not applicable

Bioaccumulative potential

Carbon dioxide (124-38-9)	
Partition coefficient n-octanol/water (Log Pow)	0.83 (Measured)
argon (7440-37-1)	
Partition coefficient n-octanol/water (Log Pow)	0.74 (Measured)

Mobility in soil

Carbon dioxide (124-38-9)	
Partition coefficient n-octanol/water (Log Pow)	0.83 (Measured)
argon (7440-37-1)	
Partition coefficient n-octanol/water (Log Pow)	0.74 (Measured)

Other adverse effects

Classification procedure (Ozone)	Not classified (Based on available data, the classification criteria are not met)
Other information	Avoid release to the environment.

SECTION 13 Disposal considerations

Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Contaminated container and packaging	No additional information available
Additional information	No additional information available
Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations

SECTION 14 Transport information

In accordance with JT/T 617 / IMDG / IATA

Overland transport (JT/T 617)	Transport by sea	Air transport
UN number		
1956	1956	1956
Proper shipping name		
COMPRESSED GAS, N.O.S. (argon ; Carbon dioxide)	COMPRESSED GAS, N.O.S. (Argon, Carbon dioxide mixture)	Compressed gas, n.o.s. (Argon, Carbon dioxide mixture)

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Overland transport (JT/T 617)	Transport by sea	Air transport
Transport document description		
UN 1956, COMPRESSED GAS, N.O.S. (argon ; Carbon dioxide), Class 2	UN 1956 COMPRESSED GAS, N.O.S. (Argon, Carbon dioxide mixture), 2.2	UN 1956 Compressed gas, n.o.s. (Argon, Carbon dioxide mixture), 2.2
Transport hazard class(es)		
2.2	2.2	2.2
		
Packing group		
Not applicable	Not applicable	Not applicable
Environmental hazards		
Dangerous for the environment No	Dangerous for the environment No Marine pollutant No	Dangerous for the environment No
No supplementary information available		

Special transport precautions

MFAG-No	126
Overland transport (JT/T 617)	
Classification code (JT/T 617)	1A.
Special provisions (JT/T 617)	274, 655, 662.
Limited quantities (JT/T 617)	120ml.
Excepted quantities (JT/T 617)	E1.
Packing instructions (JT/T 617)	P200.
Mixed packing provisions (JT/T 617)	MP9.
Portable tank and bulk container instructions (JT/T 617)	(M).
Tank codes (JT/T 617)	CxBN(M).
Tank special provisions (JT/T 617)	TA4, TT9.
Vehicle for tank carriage (JT/T 617)	AT.
Transport category (JT/T 617)	3.

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Tunnel restriction code (JT/T 617)	E.
Special provisions for carriage - Loading, unloading and handling (JT/T 617)	CV9, CV10, CV36.
Hazard identification number (JT/T 617)	20.
Orange-coloured plate (JT/T 617)	20 1956
Transport by sea	
Special provisions (IMDG)	274, 378, 392.
Limited quantities (IMDG)	120 ml.
Excepted quantities (IMDG)	E1.
Packing instructions (IMDG)	P200.
EmS-No. (Fire)	F-C.
EmS-No. (Spillage)	S-V.
Stowage category (IMDG)	A.
Flash point (IMDG)	
Properties and observations (IMDG)	
MFAG-No	126
Air transport	
PCA Excepted quantities (IATA)	E1.
PCA Limited quantities (IATA)	Forbidden.
PCA limited quantity max net quantity (IATA)	Forbidden.
PCA packing instructions (IATA)	200.
PCA max net quantity (IATA)	75kg.
CAO packing instructions (IATA)	200.
CAO max net quantity (IATA)	150kg.
Special provisions (IATA)	A202.
ERG code (IATA)	2L.

SECTION 15 Regulatory information

Dangerous Goods List (GB 12268)	Contains listed substance(s).
Rules for dangerous goods transport by railway	Listed, Compressed gas, ARGON, REFRIGERATED LIQUID.
New Chemical Substance Environmental Management Registration Measures (MEE Order 12 of 2020)	
Inventory of Existing Chemical Substances in China (IECSC)	Contains listed substance(s)

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Carbon dioxide (CAS-No. 124-38-9)

Argon (CAS-No. 7440-37-1)

Regulations on the Safe Management of Hazardous Chemicals (Decree 591 of the State Council)

Catalogue of Hazardous Chemicals (2015)

Contains Hazardous Chemical(s)

Carbon dioxide, compressed (CAS-No. 124-38-9)

Argon [Compressed or liquefied] (CAS-No. 7440-37-1)

Considered as Hazardous Chemical(s)

Regulation on the Administration of Precursor Chemicals (Decree 445 of the State Council)

Catalogue of Precursor Chemicals

Other domestic regulatory lists

Dangerous Goods List (GB 12268)

Contains listed substance(s)

COMPRESSED GAS, N.O.S. (UN-No. 1956)

ARGON, COMPRESSED (CAS-No. 7440-37-1 / UN-No. 1006)

SECTION 16 Other information

Data sources

European Chemicals Agency, <http://echa.europa.eu/>
manufacturer

Abbreviations and acronyms	
CAS-No.	Chemical Abstract Service number
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DNEL	Derived-No Effect Level
EC50	Median effective concentration
ED	Endocrine disruptor
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IOELV	Indicative Occupational Exposure Limit Value
LC50	Median lethal concentration
LD50	Median lethal dose
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
N. O. S.	Not Otherwise Specified
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration



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REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
TRGS	Technical Rules for Hazardous Substances
VOC	Volatile Organic Compounds
WGK	Water Hazard Class
vPvB	Very Persistent and Very Bioaccumulative
NOAEL	No-Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
LOAEL	Lowest Observed Adverse Effect Level

Section	Changed item	Change	Comments
	General.	Modified.	
1.	- The emergency number of the company selected for section 1.3:	Modified.	

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.