

GC FX 3

Safety Data Sheet

according to ICOP 2014,2019

Issue date: 03/09/2025

Revision date: 3/9/2025

Supersedes: 02/06/2025

Version: 3.1

SECTION 1: Identification of the hazardous chemical and of the supplier

1.1. Product identifier

Name	GC FX 3
Product form	Mixture
Product code	BU Direct Fastening

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. For professional use only
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1.4. Supplier details

Supplier

Hilti (Malaysia) Sdn. Bhd.
F-5-A, Sime Darby Brunfield Tower, No. 2, Jalan PJU 1A/7A
Oasis Square, Oasis Damansara
47301 Petaling Jaya, Selangor
Malaysia
T +60 3 5628 7222
1800 880 985 toll free - F +60 3 7848 7399

Department issuing data specification sheet

Hilti AG
Feldkircherstraße 100
9494 Schaan
Liechtenstein
T +423 234 2111
product.compliance-direct.fastening@hilti.com

1.5. Emergency phone number

Emergency number	GBK GmbH Global Regulatory Compliance +49 (0)6132-84463
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Country	Organisation/Company	Address	Emergency number	Comment
Malaysia	Malaysia National Poison Centre (NPC) Universiti Sains Malaysia	11800 Penang	+60 (0)4 6536 999 (Mon-Fri 8am-10pm; Sat, Sun & Public Holiday 8am-5pm)	

SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

Classification according to Industry Code of Practice on chemicals classification and hazard communication (2019)

Gases under pressure : Compressed gas

H280

2.2. Label elements

Labelling according to Industry Code of Practice on chemicals classification and hazard communication (2019)

Hazard pictograms (GHS MY)



Signal word (GHS MY)

Hazard statements (GHS MY)

Precautionary statements (GHS MY)

Warning

H280 - Contains gas under pressure; may explode if heated

P251 - Pressurized container: Do not pierce or burn, even after use

P402 - Store in a dry place

P403 - Store in a well-ventilated place

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

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2.3. Other hazards that do not result in classification

Other hazards which do not result in classification Asphyxiant in high concentrations

SECTION 3: Composition and information of the ingredients of the hazardous chemical

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Industry Code of Practice on chemicals classification and hazard communication (2019)
argon	CAS-No.: 7440-37-1	≥ 80	Press. Gas (Comp.), H280
Carbon dioxide	CAS-No.: 124-38-9	10 – 25	Press. Gas (Liq.), H280

SECTION 4: First-aid measures

4.1. 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 CO2 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.

4.2. Most important symptoms/effects, acute and delayed

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

4.3. Indication of immediate medical attention and special treatment needed, if necessary

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

5.1. Suitable extinguishing media

Suitable extinguishing media	The product is non-combustible. Use extinguishing agent suitable for surrounding fire.
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5.2. Physicochemical hazards arising from the chemical

Explosion hazard	Contains gas under pressure; may explode if heated.
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5.3. Special protective equipment and precautions for fire fighters

Hazchem Code	2TE
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.
EAC code	2TE

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

General measures	Evacuate area. Mechanically ventilate the spillage area.
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 materials for containment and cleaning up

Methods for cleaning up	Provide adequate ventilation.
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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 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

SECTION 8: Exposure controls and personal protection

8.1. Control parameters

Carbon dioxide (124-38-9)	
Malaysia - Occupational Exposure Limits	
Local name	Karbon dioksida # Carbon dioxide
PEL (OEL TWA)	9000 mg/m³
	5000 ppm
MEL (mg/m³)	27000 mg/m³
MEL (ppm)	15000 ppm

Exposure limit values for the other components

No additional information available

8.1.1 Biological monitoring

No additional information available

8.2. 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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8.3. Individual protection measures, such as PPE

Hand protection:
Not required for normal conditions of use

Eye protection:			
Safety glasses			
Type	Field of application	Characteristics	Standard
Safety glasses		clear	EN 166, EN 170

Respiratory protection:
Keep self contained breathing apparatus readily available for emergency use.

Personal protective equipment symbol(s):



Thermal hazard protection
Environmental exposure controls
Consumer exposure controls

No information available.
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.
Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

Physical state	Gas
Appearance	No data available
Colour	Colourless
Odour	odourless
Odour threshold	No data available
pH	Not applicable
Melting point	Not applicable
Freezing point	Not applicable
Boiling point	Not applicable
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	Non flammable
Explosive limits	No data available
Vapour pressure	Vapour pressure: Not available Vapour pressure at 50°C: Not available
Relative vapour density at 20°C	No data available
Relative density	No data available
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive properties	Not applicable.
Gas group	Gases under pressure : Compressed gas

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Oxidising properties	Not applicable.
Particle size	Not applicable
Additional information	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level

SECTION 10: Stability and reactivity

Reactivity	The product is non-reactive under normal conditions of use, storage and transport
Chemical stability	Stable under normal conditions
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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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 or irritation	Not classified (Based on available data, the classification criteria are not met) pH: Not applicable
Serious eye damage or eye irritation	Not classified (Based on available data, the classification criteria are not met)
Respiratory sensitization	Not classified (Based on available data, the classification criteria are not met)
Skin sensitization	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (STOT) – single exposure	Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (STOT) – repeated exposure	Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	Not applicable

SECTION 12: Ecological information

12.1. 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)
Other information	Avoid release to the environment.

Carbon dioxide (124-38-9)	
LC50 - Fish [1]	35 ppm (96 h; Salmo gairdneri; Literature data)
Partition coefficient n-octanol/water (Log Pow)	0.83 (Measured)
argon (7440-37-1)	
Partition coefficient n-octanol/water (Log Pow)	0.74 (Measured)

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12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

GC FX 3	
Bioaccumulative potential	No additional information available
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)

12.4. Mobility in soil

GC FX 3	
Mobility in soil	No additional information available
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)

12.5. Other adverse effects

Ozone	Not classified (Based on available data, the classification criteria are not met)
Other adverse effects	No additional information available

SECTION 13: Disposal information

13.1. Disposal methods

Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transportation information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1956	UN 1956	UN 1956	UN 1956	UN 1956
14.2. UN proper shipping name				
COMPRESSED GAS, N.O.S. (Argon, Carbon dioxide mixture)	COMPRESSED GAS, N.O.S. (Argon, Carbon dioxide mixture)	Compressed gas, n.o.s. (Argon, Carbon dioxide mixture)	COMPRESSED GAS, N.O.S. (Argon, Carbon dioxide mixture)	COMPRESSED GAS, N.O.S. (Argon, Carbon dioxide mixture)

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ADR	IMDG	IATA	ADN	RID
Transport document description				
UN 1956 COMPRESSED GAS, N.O.S. (Argon, Carbon dioxide mixture), 2.2, (E)	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	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
14.3. Transport hazard class(es)				
2.2	2.2	2.2	2.2	2.2
				
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	1A
Special provisions (ADR)	274, 378, 392, 655, 662
Limited quantities (ADR)	120ml
Excepted quantities (ADR)	E1
Packing instructions (ADR)	P200
Mixed packing provisions (ADR)	MP9
Portable tank and bulk container instructions (ADR)	(M)
Tank code (ADR)	CxBN(M)
Tank special provisions (ADR)	TA4, TT9
Vehicle for tank carriage	AT
Transport category (ADR)	3
Special provisions for carriage - Loading, unloading and handling (ADR)	CV9, CV10, CV36
Hazard identification number (Kemler No.)	20
Orange plates	20 1956

Tunnel restriction code (ADR)	E
EAC code	2TE

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

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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

Inland waterway transport

Classification code (ADN) 1A
Special provisions (ADN) 274, 378, 392, 655, 662
Limited quantities (ADN) 120 ml
Excepted quantities (ADN) E1
Equipment required (ADN) PP
Number of blue cones/lights (ADN) 0
Additional requirements/Remarks (ADN)

Rail transport

Classification code (RID) 1A
Special provisions (RID) 274, 378, 392, 655, 662
Limited quantities (RID) 120ml
Excepted quantities (RID) E1
Packing instructions (RID) P200
Mixed packing provisions (RID) MP9
Portable tank and bulk container instructions (RID) (M)
Tank codes for RID tanks (RID) CxBN(M)
Special provisions for RID tanks (RID) TA4, TT9
Transport category (RID) 3
Special provisions for carriage - Loading, unloading and handling (RID) CW9, CW10, CW36
Colis express (express parcels) (RID) CE3
Hazard identification number (RID) 20

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

14.8. Hazchem or Emergency Action Code

EAC code : 2TE.
Hazchem Code : 2TE

SECTION 15: Regulatory information

15.1. Safety, health, and environmental regulations specific for the hazardous chemical in question

Regulation		Component/ Mixture
EHS Notification and Registration Scheme	Not applicable	
EHS Notification and Registration Scheme	Not applicable	GC FX 3
Environmental Quality (Chlorofluorocarbons Prohibition) Order 1993		GC FX 3

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Environmental Quality (Industrial Effluent) Regulations 2009		GC FX 3
Environmental Quality (Scheduled Wastes) Regulations 2007		GC FX 3
Control of Industrial Major Accident Hazards Regulations 1996		GC FX 3
Prohibition of Use of Substance Order 1999		GC FX 3
Use and Standards of Exposure of Chemical Hazardous to Health Regulations 2000		GC FX 3
Chemical Weapons Convention Act		GC FX 3
Corrosive and Explosive Substances and Offensive Weapons Act		GC FX 3
Dangerous Drugs Act		GC FX 3
Pesticides Act		GC FX 3
Petroleum (Safety Measures) Act		GC FX 3
Poisons Act 1952		GC FX 3
Poisons (Psychotropic Substances) Regulations 1989		GC FX 3

15.2. International agreements

No additional information available

SECTION 16: Other information

Version	3.1
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Indication of changes			
Section	Changed item	Change	Comments
	General		

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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
 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

Full text of H-statements	
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

SDS MY HILTI

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.