GC FX 3

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 07/21/2023 Revision date: 07/21/2023 Supersedes: 04/05/2023 Version: 3.0

SECTION 1: Identification

1.1. Product identifier

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

1.2. Recommended use and restrictions on use

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

1.3. Supplier

Supplier
Hilti (Canada) Corp.
Suite 700
2201 Bristol Circle
Oakville, Ontario L6H 0J8
Canada
T +1905 8139200
1-800-363-4458 toll free - F +1 905 813 9009

Department issuing data specification sheet
Hilti Entwicklungsgesellschaft mbH
Hiltistrasse 6
Kaufering, 86916
Deutschland
T +49 8191 906310 - F +49 8191 90176310
df-hse@hilti.com

1.4. Emergency telephone number

Emergency number	Emergency contact (24 hours per day) GBK/Infotrac ID 101022 (USA domestic) 1 800 535 5053 or international (001)352 323 3500

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Gases under pressure : Compressed gas	H280	Contains gas under pressure; may explode if heated.

Full text of H-statements: see section 16

2.2. GHS Label elements, including precautionary statements

GHS CA labelling

Hazard pictograms (GHS CA)

Signal word (GHS CA) Warning

Hazard statements (GHS CA)
H280 - Contains gas under pressure; may explode if heated.

Precautionary statements (GHS CA)
P251 - 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.

2.3. Other hazards

Other hazards which do not result in classification	No additional information available.

2.4. Unknown acute toxicity (GHS CA)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
argon	argon	CAS-No.: 7440-37-1	65 - 85	Press. Gas (Comp.), H280
Carbon dioxide	Carbon dioxide	CAS-No.: 124-38-9	65 - 85	Press. Gas (Liq.), H280

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

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.

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).

4.2. Most important symptoms and 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. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment: Treat symptomatically.

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.

5.2. Unsuitable extinguishing media

No additional information available

5.3. Specific hazards arising from the hazardous product

Explosion hazard: Contains gas under pressure; may explode if heated.

5.4. Special protective equipment and precautions for 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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions, Protective Equipment and Emergency Procedures	Do not attempt to take action without suitable protective equipment. Ventilate area.

6.2. Methods and materials for containment and cleaning up

Methods for cleaning up	Provide adequate ventilation.

6.3. Reference to other sections

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

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/personal protection

8.1. Control parameters

Carbon dioxide (124-38-9)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	Carbon dioxide
OEL TWA	9000 mg/m³
OEL TWA [ppm]	5000 ppm
OEL STEL	54000 mg/m³
OEL STEL [ppm]	30000 ppm
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
Local name	Carbon dioxide
VECD (OEL STEL)	54000 mg/m³
VECD (OEL STEL) [ppm]	30000 ppm
VEMP (OEL TWA)	9000 mg/m³
VEMP (OEL TWA) [ppm]	5000 ppm
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety

Carbon dioxide (124-38-9)	
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Carbon dioxide
OEL TWA [ppm]	5000 ppm
OEL STEL [ppm]	15000 ppm
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Carbon dioxide
OEL TWA [ppm]	5000 ppm
OEL STEL [ppm]	30000 ppm
Notations and remarks	TLV® Basis: Asphyxia
Regulatory reference	ACGIH 2023
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Carbon dioxide
OEL TWA [ppm]	5000 ppm
OEL STEL [ppm]	30000 ppm
Notations and remarks	TLV® Basis: Asphyxia
Regulatory reference	ACGIH 2023
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Carbon dioxide
OEL TWA [ppm]	5000 ppm
OEL STEL [ppm]	30000 ppm
Notations and remarks	TLV® Basis: Asphyxia
Regulatory reference	ACGIH 2023
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Carbon dioxide
OEL TWA [ppm]	5000 ppm
OEL STEL [ppm]	30000 ppm
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Carbon dioxide
OEL TWA [ppm]	5000 ppm
OEL STEL [ppm]	30000 ppm
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-013-2020)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Carbon dioxide

Carbon dioxide (124-38-9)	
OEL TWA [ppm]	5000 ppm
OEL STEL [ppm]	30000 ppm
Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Carbon dioxide
OEL TWA [ppm]	5000 ppm
OEL STEL [ppm]	30000 ppm
Notations and remarks	TLV® Basis: Asphyxia
Regulatory reference	ACGIH 2023
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Carbon dioxide
OEL TWA [ppm]	5000 ppm
OEL STEL [ppm]	30000 ppm
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10

argon (7440-37-1)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	Argon
Notations and remarks	Substance is a simple asphyxiant that may create an atmosphere deficient in oxygen; available oxygen in the range of 19.5 percent to 23 percent by volume must be present.
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
Local name	Argon
Notations and remarks	Simple asphyxiant
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Argon
Notations and remarks	Simple asphyxiant
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Argon
Notations and remarks	TLV® Basis: Simple Asphyxiant
Regulatory reference	ACGIH 2023
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Argon
Notations and remarks	TLV® Basis: Simple Asphyxiant

argon (7440-37-1)	
Regulatory reference	ACGIH 2023
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Argon
Notations and remarks	TLV® Basis: Simple Asphyxiant
Regulatory reference	ACGIH 2023
Canada (Ontario) - Occupational Exposure Limits	
Local name	Argon
Notations and remarks	Simple asphyxiant
Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Argon
Notations and remarks	TLV® Basis: Simple Asphyxiant
Regulatory reference	ACGIH 2023

8.2. Appropriate engineering controls

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

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
Avoid all unnecessary exposure.

Hand protection:
Not required for normal conditions of use

Eye protection:		
Safety glasses. CSA Z94.3:20		
Type	**Field of application**	**Characteristics**
Safety glasses		clear

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

Personal protective equipment symbol(s):

Thermal hazard protection:
No information available.

Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Gas
Appearance	No data available
Colour	Colourless
Odour	odourless
Odour threshold	No data available
pH	Not applicable
Relative evaporation rate (butylacetate=1)	No data available
Relative evaporation rate (ether=1)	No data available
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 (solid, gas)	Non flammable Non flammable.
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
Viscosity, kinematic	No data available
Explosive properties	Not applicable.
Oxidising properties	Not applicable.
Explosive limits	No data available

9.2. Other information

Gas group	Gases under pressure : 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

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.
Hardening time:	No additional information available

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/irritation	Not classified (Based on available data, the classification criteria are not met) pH: Not applicable
Serious eye damage/irritation	Not classified (Based on available data, the classification criteria are not met) pH: Not applicable
Respiratory or 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)
STOT-single exposure	Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	Not classified (Based on available data, the classification criteria are not met)
Symptoms/effects	Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	Respiratory complaints.

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 (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 mg/l (96 h; Salmo gairdneri; Literature data)

12.2. Persistence and degradability

GC FX 3	
Persistence and degradability	Not established.

Carbon dioxide (124-38-9)	
Persistence and degradability	Not applicable.

argon (7440-37-1)	
Not rapidly degradable	
Persistence and degradability	Not applicable.

12.3. 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)

12.4. Mobility in soil

Carbon dioxide (124-38-9)
argon (7440-37-1)

12.5. Other adverse effects

Ozone: Not classified
Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

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: Transport information

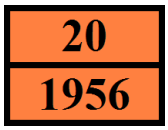
In accordance with ADR / IMDG / IATA / ADN / RID

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)
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

ADR	IMDG	IATA	ADN	RID
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	1A
Special provisions (ADR)	274, 378, 392
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	
Tunnel restriction code (ADR)	E

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
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

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

SECTION 15: Regulatory information

15.1. National regulations

GC FX 3	
Canada DSL NDSL Flags	All components of this product are listed, or excluded from listing, on the Canadian Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Carbon dioxide (124-38-9)
Listed on the Canadian DSL (Domestic Substances List)

argon (7440-37-1)
Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: Other information

Issue date	07-21-2023
Revision date	07-21-2023
Supersedes	04-05-2023

Indication of changes

Section	Changed item	Change	Comments
1.4	Emergency number	Modified	
8.1	Binding Occupational Exposure Limit	Added	
8.2	Personal protective equipment	Modified	
16	Other data	Added	NFPA 30B

Data sources: European Chemicals Agency, http://echa.europa.eu/. manufacturer.

Other information	NFPA 30B.

Full text of H-statements:	
H280	Contains gas under pressure; may explode if heated.

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 disrupting properties
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

Abbreviations and acronyms:	
NOAEL	No-Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
LOAEL	Lowest Observed Adverse Effect Level

SDS CA 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.