

GC 42

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Issue date: 27/06/2023

Revision date: 27/06/2023

Supersedes: 20/03/2018

Version: 2.0

SECTION 1: Identification

1.1 Product identifier

Name	GC 42
Product form	Mixture
Chemical structure	
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	For professional use only Propellant for direct fastening tools.
-----------------	---

1.4 Details of manufacturer or importer

Supplier

Hilti (New Zealand) Ltd.
Level 1, Building B 600 South Road Ellerslie
Auckland 1051
New Zealand
T +64 9 571 9995
, 800 444 584 toll free - F +64 9526 7780
servicenz@hilti.com

Department issuing data specification sheet

Hilti AG
Feldkircherstraße 100
Schaan 9494
Liechtenstein
T +423 234 2111
df-hse@hilti.com

1.5. Emergency phone number

Emergency number	Emergency contact (24 hours per day) GBK GmbH Global Regulatory Compliance +49 (0)6132-84463
------------------	---

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

HSNO Approval Number HSR002532

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Flammable gases, Category 1A	H220
Gases under pressure : Compressed gas	H280

2.2. GHS Label elements, including precautionary statements

GHS NZ labelling

Hazard pictograms (GHS NZ)



Signal word (GHS NZ)	Danger
Hazard statements (GHS NZ)	H220 - Extremely flammable gas H280 - Contains gas under pressure; may explode if heated
Precautionary statements	P102 - Keep out of reach of children.
Prevention	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 - Do not spray on an open flame or other ignition source. P251 - Do not pierce or burn, even after use.

GC 42

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Response P381 - In case of leakage, eliminate all ignition sources.
Storage 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 which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to GHS NZ
isobutane	CAS-No.: 75-28-5	55 - <65	Flam. Gas 1A, H220 Press. Gas (Comp.), H280
propene	CAS-No.: 115-07-1	20 - <30	Flam. Gas 1A, H220 Press. Gas (Comp.), H280
Propane	CAS-No.: 74-98-6	5 - <15	Flam. Gas 1A, H220 Press. Gas (Comp.), H280

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general Take off immediately all contaminated clothing.
First-aid measures after inhalation Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact Gently wash with plenty of soap and water.
First-aid measures after eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion Immediately consult a doctor/medical service.

4.2. Symptoms caused by exposure

No additional information available

4.3. Medical attention and special treatment

Other medical advice or treatment Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media Carbon dioxide. Water spray. Dry powder. Alcohol resistant foam.
Unsuitable extinguishing media Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Explosion hazard Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
General measures Evacuate area. Remove ignition sources.
Hazardous decomposition products in case of fire On burning: release of (highly) toxic gases/vapours. Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions DO NOT fight fire when fire reaches explosives. Evacuate area.

GC 42

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Protection during firefighting	Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.
Other information	EN 12942. EN 12941.
EAC code	2YE - 2YE

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Evacuate area. Remove ignition sources.
6.1.1. For non-emergency personnel	
Emergency procedures	Ventilate spillage area. Evacuate area. No open flames, no sparks, and no smoking.
6.1.2. For emergency responders	
Protective equipment	Do not attempt to take action without suitable protective equipment. Breathing apparatus.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up	Do not flush with water.
-------------------------	--------------------------

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	Flammable gas. Do not pierce or burn, even after use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Precautions for safe handling	Do not spray on an open flame or other ignition source. Avoid contact with skin, eyes and clothing. Do not breathe vapours. Prevent the build-up of electrostatic charge.
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

Technical measures	Proper grounding procedures to avoid static electricity should be followed.
Storage conditions	Keep cool. Protect from sunlight. Keep in fireproof place. Store in dry protected location to prevent any moisture contact.
Incompatible materials	Heat sources. Direct sunlight. Sources of ignition.
Storage temperature	5 – 25 °C
Heat and ignition sources	Keep away from heat and direct sunlight. Keep away from ignition sources.
Information on mixed storage	Do not store with DX powder cartridges.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

GC 42	
New Zealand - Occupational Exposure Limits	
Local name	Propane
Remark (NZ)	Simple asphyxiant – may present an explosion hazard
Regulatory reference	Workplace Exposure Standards and Biological Exposure Indices, 13th Edition

GC 42

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Density	Density: 0.6 g/cm ³ (DIN 51757)
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, dynamic	No data available
Explosive properties	Product is not explosive. In use, may form flammable/explosive vapour-air mixture.
Explosive limits	1.7 vol % 11.1 vol %
Minimum ignition energy	No data available
Gas group	Gases under pressure : Compressed gas

SECTION 10: Stability and reactivity

Reactivity	No additional information available
Chemical stability	Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Extreme risk of explosion by shock, friction, fire or other sources of ignition.
Possibility of hazardous reactions	No additional information available
Conditions to avoid	Heat. Sparks. Open flame. Direct sunlight. Overheating.
Incompatible materials	No additional information available
Hazardous decomposition products	No additional information available

SECTION 11: Toxicological information

11.1. 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)

isobutane (75-28-5)	
LC50 Inhalation - Rat [ppm]	> 18000 ppm

propene (115-07-1)	
LC50 Inhalation - Rat	> 688 mg/m ³

Propane (74-98-6)	
LC50 Inhalation - Rat [ppm]	> 280000 ppm (literature)

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

GC 42	
Vaporizer	Container fitted with a sealed spray attachment

Potential adverse human health effects and symptoms	No additional information available. No harmful effects are to be expected if used properly. The contained ingredients can be harmful, but they are hermetically enclosed in the article and can not be released. The dismantling of the article is prohibited.
---	---

GC 42

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general	Due to the consistency along with the low water solubility of the product a bioavailability is unlikely.
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
Soil toxicity	Not classified (Based on available data, the classification criteria are not met)
Terrestrial vertebrate toxicity	Not classified
Terrestrial invertebrate toxicity	Not classified
Other information	Avoid release to the environment.

isobutane (75-28-5)	
LC50 - Fish [1]	24.11 – 147.54 mg/l (Quantitative structure-activity relationship (QSAR))
EC50 - Crustacea [1]	7.02 – 69.43 mg/l (Quantitative structure-activity relationship (QSAR))
ErC50 algae	7.71 – 16.5 mg/l (Quantitative structure-activity relationship (QSAR))
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 (20 °C)
propene (115-07-1)	
LC50 - Fish [1]	43.3 mg/l (72 h; Oncorhynchus mykiss (Rainbow trout); Quantitative structure-activity relationship (QSAR))
EC50 - Crustacea [1]	28.2 mg/l (48 h; daphnia; Quantitative structure-activity relationship (QSAR))
Partition coefficient n-octanol/water (Log Kow)	1.77 (20 °C)

12.2. Persistence and degradability

GC 42	
Persistence and degradability	No additional information available
isobutane (75-28-5)	
Persistence and degradability	Readily biodegradable.
propene (115-07-1)	
Persistence and degradability	Readily biodegradable in water.
Propane (74-98-6)	
Persistence and degradability	Readily biodegradable in water.

12.3. Bioaccumulative potential

GC 42	
Bioaccumulative potential	No additional information available
isobutane (75-28-5)	
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 (20 °C)
Bioaccumulative potential	Bioaccumulation unlikely.
propene (115-07-1)	
Partition coefficient n-octanol/water (Log Kow)	1.77 (20 °C)
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).
Propane (74-98-6)	
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

GC 42

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

12.4. Mobility in soil

GC 42	
Mobility in soil	No additional information available
isobutane (75-28-5)	
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 (20 °C)
propene (115-07-1)	
Partition coefficient n-octanol/water (Log Kow)	1.77 (20 °C)

12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

SECTION 13: Disposal considerations

Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	Container under pressure. Do not drill or burn even after use.
Additional information	Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 3150	UN 3150	UN 3150	UN 3150
14.2. UN proper shipping name			
HYDROCARBON GAS REFILLS FOR SMALL DEVICES	HYDROCARBON GAS REFILLS FOR SMALL DEVICES	Hydrocarbon gas Refills for small devices	HYDROCARBON GAS REFILLS FOR SMALL DEVICES
Transport document description			
UN 3150 HYDROCARBON GAS REFILLS FOR SMALL DEVICES, 2.1, (D)	UN 3150 HYDROCARBON GAS REFILLS FOR SMALL DEVICES, 2.1	UN 3150 Hydrocarbon gas Refills for small devices, 2.1	UN 3150 HYDROCARBON GAS REFILLS FOR SMALL DEVICES, 2.1
14.3. Transport hazard class(es)			
2.1	2.1	2.1	2.1
14.4. Packing group			
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
No supplementary information available			

GC 42

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

14.6. Special precautions for user

Overland transport

Classification code (ADR)	6F
Limited quantities (ADR)	0
Excepted quantities (ADR)	E0
Packing instructions (ADR)	P209
Mixed packing provisions (ADR)	MP9
Transport category (ADR)	2
Special provisions for carriage - Loading, unloading and handling (ADR)	CV9
Special provisions for carriage - Operation (ADR)	S2
Tunnel restriction code (ADR)	D
EAC code	2YE

Transport by sea

Limited quantities (IMDG)	0
Excepted quantities (IMDG)	E0
Packing instructions (IMDG)	P003
EmS-No. (Fire)	F-D
EmS-No. (Spillage)	S-U
Stowage category (IMDG)	B
Stowage and handling (IMDG)	SW2
MFAG-No	115

Air transport

PCA Excepted quantities (IATA)	E0
PCA Limited quantities (IATA)	Forbidden
PCA limited quantity max net quantity (IATA)	Forbidden
PCA packing instructions (IATA)	201
PCA max net quantity (IATA)	1kg
CAO packing instructions (IATA)	201
CAO max net quantity (IATA)	15kg
Special provisions (IATA)	A802
ERG code (IATA)	10L

Rail transport

Classification code (RID)	6F
Limited quantities (RID)	0
Excepted quantities (RID)	E0
Packing instructions (RID)	P209
Mixed packing provisions (RID)	MP9
Transport category (RID)	2
Special provisions for carriage - Loading, unloading and handling (RID)	CW9
Colis express (express parcels) (RID)	CE2
Hazard identification number (RID)	23

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

Hazardous Substances and New Organisms Act

HSNO Approval Number HSR002532

GC 42

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

SDS Major/Minor	None
Issue date	27/06/2023
Revision date	27/06/2023
Supersedes	20/03/2018
Data sources	European Chemicals Agency, http://echa.europa.eu/ . manufacturer.
Abbreviations and acronyms	<p>CAS-No. - Chemical Abstract Service number</p> <p>ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways</p> <p>ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road</p> <p>ATE - Acute Toxicity Estimate</p> <p>CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008</p> <p>DNEL - Derived-No Effect Level</p> <p>EC50 - Median effective concentration</p> <p>ED - Endocrine disrupting properties</p> <p>EC-No. - European Community number</p> <p>EN - European Standard</p> <p>IATA - International Air Transport Association</p> <p>IMDG - International Maritime Dangerous Goods</p> <p>IOELV - Indicative Occupational Exposure Limit Value</p> <p>LC50 - Median lethal concentration</p> <p>LD50 - Median lethal dose</p> <p>NOEC - No-Observed Effect Concentration</p> <p>OECD - Organisation for Economic Co-operation and Development</p> <p>N.O.S. - Not Otherwise Specified</p> <p>OEL - Occupational Exposure Limit</p> <p>PBT - Persistent Bioaccumulative Toxic</p> <p>PNEC - Predicted No-Effect Concentration</p> <p>REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006</p> <p>RID - Regulations concerning the International Carriage of Dangerous Goods by Rail</p> <p>SDS - Safety Data Sheet</p> <p>STP - Sewage treatment plant</p> <p>TLM - Median Tolerance Limit</p> <p>TRGS - Technical Rules for Hazardous Substances</p> <p>VOC - Volatile Organic Compounds</p> <p>WGK - Water Hazard Class</p> <p>vPvB - Very Persistent and Very Bioaccumulative</p> <p>NOAEL - No-Observed Adverse Effect Level</p> <p>NOAEC - No-Observed Adverse Effect Concentration</p> <p>LOAEL - Lowest Observed Adverse Effect Level</p>
Training advice	Department issuing data specification sheet.

Full text of H-statements	
Flam. Gas 1A	Flammable gases, Category 1A
Press. Gas (Comp.)	Gases under pressure : Compressed gas
H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated



GC 42

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

SDS NZ 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.