

GC 32

Safety Data Sheet

according to the WHS Regulations

Issue date: 02/06/2023

Revision date: 02/06/2023

Supersedes: 23/02/2018

Version: 3.0

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form Mixture
Name GC 32
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 (Aust.) Pty. Ltd.
Level 5, 1G Homebush Bay Drive
P.O. Box 3217
Rhodes NSW 2138
Australia
T +61 131 292 - F +61 1300 135 042
serviceaustralia@hilti.com

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

1.5. 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

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

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

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU)



Flame

Gas cylinder

Signal word (GHS AU)

Danger

Hazard statements (GHS AU)

H220 - Extremely flammable gas
H280 - Contains gas under pressure; may explode if heated

Precautionary statements (GHS AU)

P102 - Keep out of reach of children.
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.
P381 - In case of leakage, eliminate all ignition sources.
P403 - Store in a well-ventilated place.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

GC 32

Safety Data Sheet

according to the WHS Regulations

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

Name	CAS-No.	%	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
but-1-ene	106-98-9	45 - <55	Not classified
propene	115-07-1	35 - <45	Flam. Gas 1A, H220 Press. Gas (Comp.), H280
Propane	74-98-6	5 - <10	Flam. Gas 1A, H220 Press. Gas (Comp.), H280
Polyethylene glycol	25322-68-3	1 - 3	Not classified

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.
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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Evacuate area. Remove ignition sources.
------------------	---

GC 32

Safety Data Sheet

according to the WHS Regulations

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

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

Appropriate engineering controls
Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

Hand protection
In case of repeated or prolonged contact wear gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)	0,12		EN ISO 374

Eye protection
Chemical goggles or safety glasses. ISO 16321-1. EN 170

Skin and body protection
When using cartridge operated tools, sufficient ear protection must be worn.

Respiratory protection
No respiratory protection needed under normal use conditions

Personal protective equipment symbol(s)



GC 32

Safety Data Sheet

according to the WHS Regulations

SECTION 9: Physical and chemical properties

Physical state	Gas
Appearance	No data available
Colour	Colourless
Odour	characteristic
Odour threshold	No data available
pH	No data available
pH solution	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point / Freezing point	No data available
Boiling point	No data available
Flash point	-88.6 °C
Auto-ignition temperature	287 °C
Flammability	No data available
Vapour pressure	Vapour pressure: 8300 hPa
Relative density	No data available
Density	Density: 0.6 g/cm ³ (DIN 51757)
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Explosive properties	Product is not explosive. In use, may form flammable/explosive vapour-air mixture.
Explosive limits	1.6 vol % 11.1 g/m ³
Minimum ignition energy	No data available
Fat solubility	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

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

propene (115-07-1)	
LC50 Inhalation - Rat	> 688 mg/m ³
Propane (74-98-6)	
LC50 Inhalation - Rat [ppm]	> 280000 ppm (literature)
Polyethylene glycol (25322-68-3)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 423 method)
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402 method)

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)

GC 32

Safety Data Sheet

according to the WHS Regulations

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)

GC 32	
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.
---	--

SECTION 12: Ecological information

According to the National Code of Practice for the Preparation of Material Safety Data Sheets, Environmental classification information is not mandatory. Information relevant for GHS classification is available on request

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 (Not applicable)
Hazardous to the aquatic environment, long-term (chronic)	Not classified (Not applicable)
Other information	Avoid release to the environment.

but-1-ene (106-98-9)	
LC50 - Fish [1]	14758 mg/l (72 h; Quantitative structure-activity relationship (QSAR); Oncorhynchus mykiss)
EC50 - Crustacea [1]	18.7 mg/l (48 h; Quantitative structure-activity relationship (QSAR); Daphnia sp.)

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)

Polyethylene glycol (25322-68-3)	
LC50 - Fish [1]	> 100 mg/l (96 h; Poecilia reticulata; (OECD 203 method))
EC50 - Crustacea [1]	> 100 mg/l (48 h; Daphnia magna; (OECD 202 method))
ErC50 algae	100 – 1000 mg/l (96 h)
NOEC chronic fish	13671.586 mg/l (28 d; Poecilia reticulata (Guppy))
NOEC chronic crustacea	17475.27 mg/l (21 d; Daphnia magna; (calculated value))

12.2. Persistence and degradability

but-1-ene (106-98-9)	
Not rapidly degradable	

propene (115-07-1)	
Persistence and degradability	Readily biodegradable in water.

Propane (74-98-6)	
Persistence and degradability	Readily biodegradable in water.

Polyethylene glycol (25322-68-3)	
Not rapidly degradable	

GC 32

Safety Data Sheet

according to the WHS Regulations

Polyethylene glycol (25322-68-3)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

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).

Polyethylene glycol (25322-68-3)	
Bioaccumulative potential	not bioaccumulable.

12.4. Mobility in soil

propene (115-07-1)	
Partition coefficient n-octanol/water (Log Kow)	1.77 (20 °C)

12.5. Other adverse effects

Ozone	Not classified (Not applicable)
Other adverse effects	No additional information available

SECTION 13: Disposal considerations

Regional legislation (waste)	Disposal must be done according to official regulations.
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

GC 32

Safety Data Sheet

according to the WHS Regulations

ADR	IMDG	IATA	RID
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			

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

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

GC 32

Safety Data Sheet

according to the WHS Regulations

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

No additional information available

15.2. International agreements

No additional information available

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	General		
1.2	Use of the substance/mixture	Modified	
8.2	Personal protective equipment	Modified	
9	Physical and chemical properties	Modified	
11	Toxicological information	Modified	
12.	Ecotoxicological information	Modified	

Data sources

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

GC 32

Safety Data Sheet

according to the WHS Regulations

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
 NOAEL - No-Observed Adverse Effect Level
 NOAEC - No-Observed Adverse Effect Concentration
 LOAEL - Lowest Observed Adverse Effect Level

Revision date

02/06/2023

Classification	
Flam. Gas 1A	H220
Press. Gas (Comp.)	H280

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

SDS AU 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.