

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 11/15/2024 Revision date: 11/15/2024 Supersedes version of: 12/14/2022

Version: 25.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form Name UFI Product code Vaporizer Mixture GC 22 W00P-0A5U-RV25-4RY0 BU Direct Fastening Container fitted with a sealed spray attachment



1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec Use of the substance/mixture For professional use only Propellant for direct fastening tools.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier Hilti (Schweiz) AG Soodstrasse 61 CH 8134 Adliswil Schweiz T +41 844 84 84 85, F +41 844 84 84 86

<u>info@hilti.ch</u>

1.4. Emergency telephone number

Emergency number

product.compliance-direct.fastening@hilti.com Emergency CONTACT (24-Hour-Number): GBK GmbH Global Regulatory Compliance

> H220 H280

Hilti AG

Feldkircherstraße 100

FL 9494 Schaan Liechtenstein

T +423 234 2111

Department issuing data specification sheet

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Flammable gases, Category 1A
Gases under pressure : Compressed gas

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms (CLP)



+49 (0)6132-84463



according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Signal word (CLP)	Danger
Signal word (CLF)	Daigei
Hazard statements (CLP)	H220 - Extremely flammable gas.
	H280 - Contains gas under pressure; may explode if heated.
Precautionary statements (CLP)	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.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII Contains no PBT and/or vPvB substances \geq 0.1% assessed in accordance with REACH Annex XIII

Component	
isobutane (75-28-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
propene (115-07-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Propane (74-98-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
isobutane (75-28-5)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
propene (115-07-1)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Propane (74-98-6)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable



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3.2. Mixtures			
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
isobutane	CAS-No.: 75-28-5 EC-No.: 200-857-2 EC Index-No.: 601-004-00-0 REACH-no: 01-2119485395- 27	55 - <65	Flam. Gas 1A, H220 Press. Gas (Comp.), H280
propene	CAS-No.: 115-07-1 EC-No.: 204-062-1 EC Index-No.: 601-011-00-9	20 - <30	Flam. Gas 1A, H220 Press. Gas (Comp.), H280
Propane	CAS-No.: 74-98-6 EC-No.: 200-827-9 EC Index-No.: 601-003-00-5 REACH-no: 01-2119486944- 21	5 - <15	Flam. Gas 1A, H220 Press. Gas (Comp.), H280

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of 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. Most important symptoms and effects, both acute and delayed No additional information available	
4.3. Indication of any immediate medical attention and special treatment needed	

Treat symptomatically.

SECTION 5: Firefighting 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. Special hazards arising from the substa	nce or mixture
Explosion hazard	Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
Hazardous decomposition products in case of fire	On burning: release of (highly) toxic gases/vapours. Thermal decomposition generates : Carbon dioxide. Carbon monoxide.
5.3. Advice for firefighters	
Precautionary measures fire	Fight fire remotely due to the risk of explosion.
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.



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6.1. Personal precautions, protectiv	ve 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.

Methods for cleaning up

Do not flush with water.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

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.	

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

isobutane (75-28-5)	
Switzerland - Occupational Exposure Limits	
Local name	iso-Butane / iso-Butan
MAK (OEL TWA)	1900 mg/m ³
	800 ppm
KZGW (OEL STEL)	7600 mg/m ³
	3200 ppm



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isobutane (75-28-5)		
Regulatory reference	www.suva.ch, 01.01.2024	
propene (115-07-1)		
Switzerland - Occupational Exposure Limits		
Local name	Propylène / Propen	
MAK (OEL TWA)	17500 mg/m ³	
	10000 ppm	
Regulatory reference	www.suva.ch, 01.01.2024	
Propane (74-98-6)		
Switzerland - Occupational Exposure Limits		
Local name	Propane / Propan	
MAK (OEL TWA)	1800 mg/m ³	
	1000 ppm	
KZGW (OEL STEL)	7200 mg/m ³	
	4000 ppm	
Remark	NIOSH	
Regulatory reference		

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

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

8.2.2.2. Skin protection

Skin and body protection:

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



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Hand protection:

Hand protection in accordance with the operating instructions for the tool

8.2.2.3. Respiratory protection

Respiratory protection:

No respiratory protection needed under normal use conditions

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Consumer exposure controls:

No additional information available.

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Gas
Colour	Colourless.
Odour	Sweet.
Odour threshold	Not available
Melting point	Not applicable
Freezing point	Not applicable
Boiling point	Not available
Flammability	Extremely flammable gas.
Explosive properties	Product is not explosive. In use, may form flammable/explosive vapour-air mixture.
Lower explosion limit	1.7 vol %
Upper explosion limit	11.1 vol %
Flash point	Not applicable
Auto-ignition temperature	Not available
Decomposition temperature	Not available
рН	Not applicable
Viscosity, kinematic	Not applicable
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	8300 hPa
Vapour pressure at 50°C	Not available
Density	0.6 g/cm³ (DIN 51757)
Relative density	Not applicable
Relative vapour density at 20°C	Not available
Particle characteristics	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Gas group

Gases under pressure : Compressed gas

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available



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10.2. 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.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Heat. Sparks. Open flame. Direct sunlight. Overheating.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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 applicable
GC 22	
Vaporizer	Container fitted with a sealed spray attachment

No additional information available

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

11.2.2. Other information

Potential adverse human health effects and symptoms

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.



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SECTION 12: Ecological information	
12.1. Toxicity	
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 (Based on available data, the classification criteria are not met)
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))
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))
EC50 96h - Algae [1]	12.1 mg/l (algae; Quantitative structure-activity relationship (QSAR))
12.2. Persistence and degradability	
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	
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).

No additional information available

12.5. Results of PBT and vPvB assessment

GC 22

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII



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12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

15.1. Waste treatment methods	
Regional waste regulation	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.
Waste disposal recommendations	Disposal according to the 'Ordinance on the avoidance and disposal of waste' (VVEA,
	Waste Ordinance, SR 814.600), the 'Ordinance on the movement of waste' (VeVA, SR
	814.610) and the 'UVEK Ordinance on Lists for the Movement of Waste' (LVA, SR
	814.610.1).

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	ΙΑΤΑ	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
		2	
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 availa	able		
14.6. Special precautions for us	ser		
Overland transport			
Classification code (ADR)	6F		
Limited quantities (ADR)	0		



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Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Transport category (ADR) Special provisions for carriage - Loading, unloading and handling (ADR) Special provisions for carriage - Operation (ADR) Tunnel restriction code (ADR)	E0 P209 MP9 2 CV9 S2 D
Transport by sea Limited quantities (IMDG) Excepted quantities (IMDG) Packing instructions (IMDG) EmS-No. (Fire) EmS-No. (Spillage) Stowage category (IMDG) Stowage and handling (IMDG) MFAG-No	0 E0 P003 F-D S-U B SW2 115
Air transport PCA Excepted quantities (IATA) PCA Limited quantities (IATA) PCA limited quantity max net quantity (IATA) PCA packing instructions (IATA) PCA max net quantity (IATA) CAO packing instructions (IATA) CAO max net quantity (IATA) Special provisions (IATA) ERG code (IATA)	E0 Forbidden 201 1kg 201 15kg A802 10L
Rail transport Classification code (RID) Limited quantities (RID) Excepted quantities (RID) Packing instructions (RID) Mixed packing provisions (RID) Transport category (RID) Special provisions for carriage - Loading, unloading and handling (RID) Colis express (express parcels) (RID) Hazard identification number (RID)	6F 0 E0 P209 MP9 2 CW9 CE2 23

14.7. Maritime transport in bulk according to IMO instruments

Not applicable



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SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)			
Reference code	Applicable on	Entry title or description	
40.	isobutane ; propene ; Propane	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Seveso Directive (Disaster Risk Reduction)

Seveso III Part I (Categories of dangerous substances)	Qualifying quantity (tonnes)	
	Lower-tier	Upper-tier
P2 FLAMMABLE GASES Flammable gases, Category 1 or 2	10	50

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)



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15.1.2. National regulations

Switzerland	
Swiss National Regulations	VOC Ordinance (VOCV, SR 814.018). Chemicals Ordinance (ChemV, SR 813.11) Annex 3: not applicable. Article 4, subparagraph 4 Order on the protection of young workers (OLT 5, RS 822.115) and Article 1, letter f Order of the DEFR on dangerous works for young workers (822.115.2): Young workers undergoing initial professional training cannot work with this product (this substance/this preparation) except where envisaged in the order of professional training to achieve the training purposes and if the training plan conditions and applicable age limits are respected. Young workers who do not undergo initial professional training cannot work with this product (this substance/this preparation). Workers of either sex aged under 18 years old are considered as young. Article 13 Order on the protection of maternity (RS 822.111.52): Pregnant women and breastfeeding mothers cannot come into contact with this product (this substance/this preparation) when working except where it has been established, on the basis of a risk analysis performed in accordance with Art. 63 OLT 1 (RS 822.111), that there is no concrete threat to the health of the mother or baby or that said threat can be excluded thanks to the suitable protection measures taken. Not applicable
Storage class (LK)	LK 2 - Liquefied or pressurized gases

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes			
Section Changed item		Change	Comments
	General	Modified	
1.3	Department issuing data specification sheet	Modified	
1.4	Emergency number	Modified	
8.2.2.2.	Hand protection	Modified	
15.2	National regulations	Added	
16	Abbreviations and acronyms	Added	

Abbreviations and acronyms:		
CAS-No.	Chemical Abstract Service number	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	uropean 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	



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European Standard IATA International Air Transport Association IMDG International Maritime Dangerous Goods IOELV Indicative Occupational Exposure Limit Value LC50 Median lethal concentration IDEC No-Observed Effect Concentration OEC No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development N.O.S. Not Otherwise Specified OEL Occupational Exposure Limit PPET 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 Presistent and Very Bioaccumulative NoAEL No-Observed Adverse Effect Conc	Abbreviations and acronyms:		
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 VVC Volatile Organic Compounds WGR Very Persistent and Very Bioaccumulative No-Observed Adverse Effect Level No-Observed Adverse Effect Level NAEL No-Observed Adverse Effect Level No-AEL	EC-No.	European Community number	
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 NO.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 VVC Volatile Organic Compounds WGK Water Hazard Class VPVB Very Persistent and Very Bioaccumulative No-Observed Adverse Effect Level No-Observed Adverse Effect Level NAEL No-Observed Adverse Effect Level STEL	EN	European Standard	
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 WFMB Very Persistent and Very Bioaccumulative NO-Observed Adverse Effect Level NO-Abserved Adverse Effect Level NO-Abserved Adverse Effect Level LOAEL Lowest Observed Adverse Effect Level XZGW Short-term limit value MAK	ΙΑΤΑ	International Air Transport Association	
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STEL Limit value for short-term exposure KZGW Short-term limit value MAK Maximum workplace concentration	NOAEC	No-Observed Adverse Effect Concentration	
KZGW Short-term limit value MAK Maximum workplace concentration	LOAEL	Lowest Observed Adverse Effect Level	
MAK Maximum workplace concentration	STEL	Limit value for short-term exposure	
	KZGW	Short-term limit value	
	МАК	Maximum workplace concentration	
TWA Time-weighted average value	TWA	Time-weighted average value	

Data sources Training advice European Chemicals Agency, http://echa.europa.eu/. manufacturer. Department issuing data specification sheet.

Full text of H- and EUH-statements:		
Flam. Gas 1A	lammable gases, Category 1A	
H220	Extremely flammable gas.	
H280 Contains gas under pressure; may explode if heated.		



according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements:	
Press. Gas (Comp.)	Gases under pressure : Compressed gas

SDS EU 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.