



HUBER

CHEMIE FÜR DEN DRUCK

PUR-O-CLEAN AEROSOL

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 27.05.2024 Revision date: 27.05.2024 Supersedes version of: 06.02.2024 Version: 8.0

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

1.1. Product identifier

Product form : Mixture
Product name : PUR-O-CLEAN AEROSOL
UFI : 1K52-G0YH-N000-EJXJ
Product code : 787

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

1.2.1. Relevant identified uses

Main use category : Industrial use
Use of the substance/mixture : Cleaning/washing agents and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Huber GmbH
Junkersring , 15
53844 Troisdorf
Deutschland
T +49 (0)2241 23499-0 - F +49 (0)2241 23499-10
info@huber-graphics.com

1.4. Emergency telephone number

Emergency number : +49-(0)2241-23499-14

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aerosol, Category 1 H222;H229
Gases under pressure
Carcinogenicity, Category 2 H351
Full text of H- and EUH-statements: see section 16

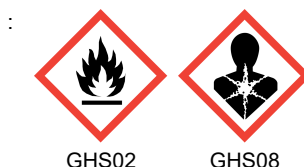
Adverse physicochemical, human health and environmental effects

Extremely flammable aerosol. Suspected of causing cancer.

2.2. Label elements

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

Hazard pictograms (CLP)



GHS02

GHS08

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H222 - Extremely flammable aerosol.
H280 - Contains gas under pressure; may explode if heated.
H351 - Suspected of causing cancer.
Precautionary statements (CLP) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective clothing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.

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P405 - Store locked up.

P410+P403 - Protect from sunlight. Store in a well-ventilated place.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH 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 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 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
DICHLOROMETHANE	CAS-No.: 75-09-2 EC-No.: 200-838-9 EC Index-No.: 602-004-00-3	50 – 80	Carc. 2, H351
BUTANE	CAS-No.: 106-97-8 EC-No.: 203-448-7 EC Index-No.: 601-004-00-0	5 – 30	Flam. Gas 1, H220 Press. Gas
PROPENE	CAS-No.: 115-07-1 EC-No.: 204-062-1 EC Index-No.: 601-011-00-9	5 – 30	Flam. Gas 1, H220 Press. Gas

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	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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 : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable aerosol.

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Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage 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. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment.

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 : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Store in a well-ventilated place. Keep cool.

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

DICHLOROMETHANE (75-09-2)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Methylene chloride; Dichloromethane

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DICHLOROMETHANE (75-09-2)	
IOEL TWA	353 mg/m ³
IOEL TWA [ppm]	100 ppm
IOEL STEL	706 mg/m ³
IOEL STEL [ppm]	200 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164
EU - Biological Limit Value (BLV)	
Local name	Methylene chloride
BLV	4 % Parameter: COHb - Medium: Blood 0,3 mg/l Parameter: methylene chloride - Medium: urine 1 mg/l Parameter: methylene chloride - Medium: blood
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs
Austria - Occupational Exposure Limits	
Local name	Dichlormethan (Methylenchlorid) (R 30)
MAK (OEL TWA)	175 mg/m ³
MAK (OEL TWA) [ppm]	50 ppm
MAK (OEL STEL)	700 mg/m ³ (2x 30(Miw) min)
MAK (OEL STEL) [ppm]	200 ppm (2x 30(Miw) min)
Remark	H. Krebszeugend: III B
Regulatory reference	BGBI. II Nr. 156/2021
Belgium - Occupational Exposure Limits	
Local name	Chlorure de méthylène (Dichlorométhane) # Methyleenchloride
OEL TWA	177 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	706 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	D: la mention "D" signifie que la résorption de l'agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l'exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l'agent dans l'air. # D: de vermelding "D" betekent dat de opname van het agens via de huid, de slijmvliezen of de ogen een belangrijk deel van de totale blootstelling vormt. Deze opname kan het gevolg zijn van zowel direct contact als zijn aanwezigheid in de lucht.
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Bulgaria - Occupational Exposure Limits	
Local name	Метилен хлорид; дихлорметан
OEL TWA	353 mg/m ³
OEL TWA [ppm]	100 ppm
OEL STEL	706 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	Кожа (възможна е значителна резорбция чрез кожата); • (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност)

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DICHLOROMETHANE (75-09-2)	
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.)
Croatia - Occupational Exposure Limits	
Local name	Diklorometan; metilen klorid
GVI (OEL TWA) [1]	353 mg/m ³
GVI (OEL TWA) [2]	100 ppm
KGVI (OEL STEL)	706 mg/m ³
KGVI (OEL STEL) [ppm]	200 ppm
Remark	Direktiva: 2017/164/EU. Napomena: Koža (razvrstana kao tvar koja nadražuje kožu (H315))
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, граничним vrijednostima izloženosti i biološkim граничним vrijednostima (NN 1/2021)
Croatia - Biological limit values	
Local name	Diklorometan (metilen klorid)
BLV	9,42 µmol/l Karakteristični pokazatelj: diklorometan - Biološki uzorak: krv - Vrijeme uzorkovanja: na kraju radne smjene 800 µg/l Karakteristični pokazatelj: diklorometan - Biološki uzorak: krv - Vrijeme uzorkovanja: na kraju radne smjene 3,5 µmol/l Karakteristični pokazatelj: diklorometan - Biološki uzorak: mokraća - Vrijeme uzorkovanja: na kraju radne smjene 0,3 mg/l Karakteristični pokazatelj: diklorometan - Biološki uzorak: mokraća - Vrijeme uzorkovanja: na kraju radne smjene 0,04 Karakteristični pokazatelj: karboksihemoglobin - Biološki uzorak: krv - Vrijeme uzorkovanja: na kraju radne smjene - Napomena: pušenje značajno povisuje nalaz
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, граничним vrijednostima izloženosti i biološkim граничним vrijednostima (NN 91/2018)
Cyprus - Occupational Exposure Limits	
Local name	Μεθυλενοχλωρίδιο· διχλωρομεθάνιο
OEL TWA	353 mg/m ³
OEL TWA [ppm]	100 ppm
OEL STEL	706 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	δέρμα
Regulatory reference	Κανονισμοί του 2019 (Κ.Δ.Π. 16/2019)
Czech Republic - Occupational Exposure Limits	
Local name	Dichlormethan (Methylenchlorid)
PEL (OEL TWA)	200 mg/m ³
PEL (OEL TWA) [ppm]	57 ppm
NPK-P (OEL C)	500 mg/m ³
NPK-P (OEL C) [ppm]	141,5 ppm
Remark	D - při expozici se významně uplatňuje pronikání faktoru kůží.
Regulatory reference	Nařízení vlády č. 361/2007 Sb. (Předpis 195/2021 Sb.)

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DICHLOROMETHANE (75-09-2)	
Denmark - Occupational Exposure Limits	
Local name	Dichlormethan (Methylenchlorid)
OEL TWA [1]	122 mg/m ³
OEL TWA [2]	35 ppm
OEL STEL	706 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	E (betyder, at stoffet har en EF-grænseværdi); H (betyder, at stoffet kan optages gennem huden); K (betyder, at stoffet anses for at kunne være kræftfremkaldende)
Regulatory reference	BEK nr 1054 af 28/06/2022
Estonia - Occupational Exposure Limits	
Local name	Diklorometaan (metüleenkloriid, MEK)
OEL TWA	120 mg/m ³
OEL TWA [ppm]	35 ppm
OEL STEL	250 mg/m ³
OEL STEL [ppm]	70 ppm
Remark	A (Naha kaudu kergesti imenduv aine), C (Kantserogeenne aine)
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 15.05.2021, 1)
Finland - Occupational Exposure Limits	
Local name	Dikloorimetaani
HTP (OEL TWA) [1]	177 mg/m ³
HTP (OEL TWA) [2]	50 ppm
HTP (OEL STEL)	353 mg/m ³
HTP (OEL STEL) [ppm]	100 ppm
Remark	Iho
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	Dichlorométhane (Chlorure de méthylène)
VME (OEL TWA)	178 mg/m ³
VME (OEL TWA) [ppm]	50 ppm
VLE (OEL C/STEL)	356 mg/m ³
VLE (OEL C/STEL) [ppm]	100 ppm
Remark	Valeurs réglementaires contraignantes; risque de pénétration percutanée
Regulatory reference	Article R4412-149 du Code du travail (réf.: INRS ED 984, 2016; Décret n° 2019-1487; Décret n° 2020-1546; Décret n° 2021-434; Décret n° 2021-1849)
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Dichlormethan
AGW (OEL TWA) [1]	180 mg/m ³
AGW (OEL TWA) [2]	50 ppm
Peak exposure limitation factor	2(II)

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DICHLOROMETHANE (75-09-2)	
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); H - hautresorptiv; Z - Ein Risiko der Fruchtschädigung kann auch bei Einhaltung des AGW und des BGW nicht ausgeschlossen werden; EU - Europäische Union (Von der EU wurde ein Luftgrenzwert festgelegt: Abweichungen bei Wert und Spitzenbegrenzung sind möglich)
Regulatory reference	TRGS900
Germany - Biological limit values (TRGS 903)	
Local name	Dichlormethan
Biological limit value	500 µg/l Parameter: Dichlormethan - Untersuchungsmaterial: B = Vollblut - Probenahmezeitpunkt: g) unmittelbar nach Exposition - Festlegung/Begründung: 11/2016 DFG
Regulatory reference	TRGS 903
Gibraltar - Occupational Exposure Limits	
Local name	Methylene chloride; Dichloromethane
OEL TWA	353 mg/m ³
OEL TWA [ppm]	100 ppm
OEL STEL	706 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	Skin
Regulatory reference	Factories (Control of Chemical Agents at Work) Regulations 2003 (LN. 2018/181)
Greece - Occupational Exposure Limits	
Local name	Μεθυλενοχλωρίδιο (Διχλωρομεθάνιο)
OEL TWA	353 mg/m ³
OEL TWA [ppm]	100 ppm
OEL STEL	706 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	Η ένδειξη «δέρμα» στις οριακές τιμές επαγγελματικής έκθεσης επισημαίνει το ενδεχόμενο σημαντικής διείσδυσης μέσω του δέρματος.
Regulatory reference	Π.Δ. 82/2018 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Hungary - Occupational Exposure Limits	
Local name	DIKLÓRMETÁN (metilén-klorid)
AK (OEL TWA)	353 mg/m ³
CK (OEL STEL)	706 mg/m ³
Remark	b (Bőrön át is felszívódik); EU4 (2017/164 EU irányelvben közölt érték); R+T (Azok az anyagok, amelyek RÖVID és TARTÓS expozíciója is egészségkárosodást okoz)
Regulatory reference	5/2020. (II. 6.) ITM rendelet - A kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
Hungary - Biological Exposure Indices	
Local name	Diklórmetán

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DICHLOROMETHANE (75-09-2)	
BEI	0,3 mg/l Biológiai expozíciós (hatás) mutató: Diklórmétán - Biológiai minta: vizeletben - Mintavétel ideje: m.v. (műszak végén) 3,5 µmol/l Biológiai expozíciós (hatás) mutató: Diklórmétán - Biológiai minta: vizeletben - Mintavétel ideje: m.v. (műszak végén)
Regulatory reference	5/2020. (II. 6.) ITM rendelet - A kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
Ireland - Occupational Exposure Limits	
Local name	Dichloromethane [Methylene chloride]
OEL TWA [1]	353 mg/m³
OEL TWA [2]	100 ppm
OEL STEL	706 mg/m³
OEL STEL [ppm]	200 ppm
Remark	IOELV (Indicative Occupational Exposure Limit Values), Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body)
Regulatory reference	Chemical Agents Code of Practice 2021
Ireland - Biological limit values	
Local name	Dichloromethane/ Methylene Chloride
BMGV	4 % Parameter: COHb - Medium: blood - Sampling time: Measure at end of shift - Notations: COHb Limit may be exceeded in heavy smokers; Sq (Semi-quantitative) 0,3 mg/l Parameter: methylene chloride - Medium: urine - Sampling time: Measure at end of shift - Notations: Sq (Semi-quantitative) 1 mg/l Parameter: methylene chloride - Medium: blood - Sampling time: Measure at end of shift - Notations: Sq (Semi-quantitative)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
Italy - Occupational Exposure Limits	
Local name	Cloruro di metilene (Diclorometano)
OEL TWA	175 mg/m³
OEL TWA [ppm]	50 ppm
OEL STEL	353 mg/m³
OEL STEL [ppm]	100 ppm
Remark	Cute
Regulatory reference	Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i.
Latvia - Occupational Exposure Limits	
Local name	Metilēnhlorīds (dihlormetāns)
OEL TWA	120 mg/m³
OEL TWA [ppm]	34 ppm
OEL STEL	150 mg/m³
OEL STEL [ppm]	42 ppm
Remark	Āda
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325
Lithuania - Occupational Exposure Limits	
Local name	Metileno chloridas

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DICHLOROMETHANE (75-09-2)	
IPRV (OEL TWA)	120 mg/m ³
IPRV (OEL TWA) [ppm]	35 ppm
TPRV (OEL STEL)	250 mg/m ³
TPRV (OEL STEL) [ppm]	70 ppm
Remark	K (kancerogeninis poveikis); O (medžiaga į organizmą gali prasiskverbti pro nepažeistą odą); Ozono sluoksnį ardanti medžiaga. Naudojimas ribojamas.
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Luxembourg - Occupational Exposure Limits	
Local name	Chlorure de méthylène ; Di-chlorométhane
OEL TWA	353 mg/m ³
OEL TWA [ppm]	100 ppm
OEL STEL	706 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	Peau
Regulatory reference	Mémorial A N° 226 de 2021 concernant la protection de la sécurité et de la santé des salariés contre les risques liés à des agents chimiques sur le lieu de travail
Malta - Occupational Exposure Limits	
Local name	Methylene chloride; Dichloromethane
OEL TWA	353 mg/m ³
OEL TWA [ppm]	100 ppm
OEL STEL	706 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	Skin # Ġilda
Regulatory reference	S.L.424.24 - Chemical Agents at Work Regulations (L.N.356 of 2021)
Netherlands - Occupational Exposure Limits	
Local name	Methyleenchloride (dichloormethaan)
TGG-8u (OEL TWA)	353 mg/m ³
TGG-15min (OEL STEL)	706 mg/m ³
Remark	H (Huidopname) Stoffen die relatief gemakkelijk door de huid kunnen worden opgenomen, hetgeen een substantiële bijdrage kan betekenen aan de totale inwendige blootstelling, hebben in de lijst een H-aanduiding. Bij deze stoffen moeten naast maatregelen tegen inademing ook adequate maatregelen ter voorkoming van huidcontact worden genomen.
Regulatory reference	Arbeidsomstandighedenregeling 2022
Poland - Occupational Exposure Limits	
Local name	Dichlorometan
NDS (OEL TWA)	88 mg/m ³
NDSch (OEL STEL)	353 mg/m ³
Remark	Skóra (Oznakowanie substancji notacją „skóra” oznacza, że wchłanianie substancji przez skórę może być tak samo istotne jak przy narażeniu drogą oddechową).
Regulatory reference	Dz. U. 2018 poz. 1286

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DICHLOROMETHANE (75-09-2)	
Portugal - Occupational Exposure Limits	
Local name	Diclorometano
OEL TWA [ppm]	50 ppm
Remark	A3 (Agente carcinogénico confirmado nos animais de laboratório con relevância desconhecida no Homem); IBE (Índice biológico de exposição)
Regulatory reference	Norma Portuguesa NP 1796:2014
Portugal - Biological Exposure Indices	
Local name	Diclorometano
BEI	0,3 mg/l Parâmetro: Diclorometano - Meio: urina - Momento da amostragem: Fim do turno - Notação: Sq (Semi quantitativo)
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	Diclorometan/Clorură de metilen
OEL TWA	353 mg/m ³
OEL TWA [ppm]	100 ppm
OEL STEL	706 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	P - posibilitatea unei penetrări cutanate importante; C2 - susceptibil de a provoca apariția cancerului
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 53/2021)
Romania - Biological limit values	
Local name	Clorură de metilen
BLV	5 % of hemoglobin Indicador biologic: COHb (carboxihemoglobină) - Material biologic: sânge - Momentul recoltării: sfârșit de schimb 1 mg/l Indicador biologic: Clorură de metilen - Material biologic: sânge - Momentul recoltării: sfârșit de schimb 0,3 mg/l Indicador biologic: Clorură de metilen - Material biologic: urină - Momentul recoltării: sfârșit de schimb
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 584/2018)
Serbia - Occupational Exposure Limits	
Local name	метилен-хлорид; диметан-хлорид
OEL TWA	353 mg/m ³
OEL TWA [ppm]	100 ppm
OEL STEL	706 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	ЕУ**** – напомена да се ради о хемијским материјама за које су утврђене индикативне граничне вредности изложености према Директиви 2017/164/ЕУ (четврта листа); К – напомена да хемијска материја може штетно деловати на кожу
Regulatory reference	ПРАВИЛНИК о превентивним мерама за безбедан и здрав рад при излагању хемијским материјама („Службени гласник РС”, бр. 106/09, 117/17 и 107/21)
Slovakia - Occupational Exposure Limits	
Local name	Dichlórmétán (metylénchlorid)
NPHV (OEL TWA) [1]	353 mg/m ³

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DICHLOROMETHANE (75-09-2)	
NPHV (OEL TWA) [2]	100 ppm
NPHV (OEL STEL)	706 mg/m ³
NPHV (OEL STEL) [ppm]	200 ppm
Remark	K - znamená, že faktor môže byť ľahko absorbovaný kožou
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.)
Slovakia - Biological limit values	
Local name	Dichlórmétán
BLV	5 % Zisťovaný faktor: CO-Hb - Vyšetrovaný materiál: krv - Čas odberu vzorky: b) koniec expozície alebo pracovnej zmeny 1 mg/l Zisťovaný faktor: Dichlórmétán - Vyšetrovaný materiál: moč - Čas odberu vzorky: b) koniec expozície alebo pracovnej zmeny
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (Zmena: 471/2011 Z.z.)
Slovenia - Occupational Exposure Limits	
Local name	diklorometan (metilen klorid)
OEL TWA	353 mg/m ³
OEL TWA [ppm]	100 ppm
OEL STEL	706 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	K (Lastnost lažjega prehajanja snovi v organizem skozi kožo), BAT (Biološka mejna vrednost), EKA (Zveza med koncentracijo rakotvornih snovi v zraku na delovnem mestu in količino snovi in/ali njenih metabolitov v organizmu), EU
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Slovenia - Biological limit values	
Local name	diklorometan
BLV	500 µg/l Parameter: diklorometan - Biološki vzorec: kri - Čas vzorčenja: takoj po izpostavljenosti
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Spain - Occupational Exposure Limits	
Local name	Cloruro de metileno (Diclorometano)
VLA-ED (OEL TWA) [1]	177 mg/m ³
VLA-ED (OEL TWA) [2]	50 ppm
VLA-EC (OEL STEL)	353 mg/m ³
VLA-EC (OEL STEL) [ppm]	100 ppm
Remark	VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo), r (Esta sustancia tiene establecidas restricciones a la fabricación, la comercialización o el uso en los términos especificados en el "Reglamento (CE) nº 1907/2006 sobre Registro, Evaluación, Autorización y Restricción de sustancias y preparados químicos" (REACH) de 18 de diciembre de 2006 (DOUE L 369 de 30 de diciembre de 2006). Las restricciones de una sustancia pueden aplicarse a todos los usos o sólo a usos concretos. El anexo XVII del Reglamento REACH contiene la lista de todas las sustancias restringidas y especifica los usos que se han restringido), VLB® (Agente químico que tiene Valor Límite Biológico), vía dérmica (Indica que, en las exposiciones a esta sustancia, la aportación por la vía cutánea puede resultar significativa para el contenido corporal total si no se adoptan medidas para prevenir la absorción. En estas situaciones, es aconsejable la utilización del control biológico para poder cuantificar la cantidad global absorbida del contaminante).

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DICHLOROMETHANE (75-09-2)	
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2022. INSHT
Spain - Biological limit values	
Local name	Cloruro de metileno (Diclorometano)
BLV	0,3 mg/l Parámetro: Diclorometano - Medio: Orina - Momento de muestreo: Final de la jornada laboral - Notas: S (Significa que el indicador biológico es un indicador de exposición al agente químico en cuestión, pero la interpretación cuantitativa de su medida es ambigua (semicuantitativa). Estos indicadores biológicos deben utilizarse como una prueba de selección (screening) cuando no se pueda realizar una prueba cuantitativa o usarse como prueba de confirmación, si la prueba cuantitativa no es específica y el origen del determinante es dudoso)
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2022. INSHT
Sweden - Occupational Exposure Limits	
Local name	Metylenklorid (Diklormetan)
NGV (OEL TWA)	120 mg/m ³
NGV (OEL TWA) [ppm]	35 ppm
KTV (OEL STEL)	250 mg/m ³
KTV (OEL STEL) [ppm]	70 ppm
Remark	C (Ämnet är cancerframkallande. Risk för cancer finns även vid annan exponering än via inandning. För vissa cancerframkallande ämnen som inte har gränsvärden gäller förbud eller tillståndskrav enligt föreskrifterna om kemiska arbetsmiljörisker); H (Ämnet kan lätt upptas genom huden. Det föreskrivna gränsvärdet bedöms ge tillräckligt skydd endast under förutsättning att huden är skyddad mot exponering för ämnet ifråga); 37 (Metylenklorid är även reglerade av Kemikalieinspektionens lagstiftning. Dispens krävs för att saluhålla, överlåta och använda metylenklorid yrkesmässigt i Sverige undantaget forskning, utveckling och analysarbete)
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	Dichloromethane
WEL TWA (OEL TWA) [1]	353 mg/m ³
WEL TWA (OEL TWA) [2]	100 ppm
WEL STEL (OEL STEL)	706 mg/m ³
WEL STEL (OEL STEL) [ppm]	200 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	Dichlorometane
BMGV	30 ppm Parameter: carbon monoxide - Medium: end-tidal breath - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Iceland - Occupational Exposure Limits	
Local name	Metýlenklóríð, díklórmetan
OEL TWA	122 mg/m ³
OEL TWA [ppm]	35 ppm

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DICHLOROMETHANE (75-09-2)	
Remark	H (efnið getur auðveldlega borist inn í líkamann gegnum húð)
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 1069/2018)
Norway - Occupational Exposure Limits	
Local name	Diklormetan (Metylenklorid)
Grenseverdi (OEL TWA) [1]	50 mg/m ³
Grenseverdi (OEL TWA) [2]	15 ppm
Korttidsverdi (OEL STEL)	150 mg/m ³
Korttidsverdi (OEL STEL) [ppm]	45 ppm
Remark	H: Kjemikalier som kan tas opp gjennom huden; K: Kjemikalier som skal betraktes som kreftfremkallende; E: EU har en veiledende grenseverdi og/eller anmerkning for stoffet.
Regulatory reference	FOR-2021-06-28-2248
North Macedonia - Occupational Exposure Limits	
Local name	дихлорметан (метилен хлорид)
OEL TWA	350 mg/m ³
OEL TWA [ppm]	100 ppm
KTV	4
Short time value [mg/m ³]	1400 mg/m ³
Short time value [ppm]	400 ppm
Remark	(KTV) краткотрајна вредност (КТВ) значи концентрација на опасни хемиски супстанции во воздухот на работното место внатре во зона на дишење, на која работникот без опасност по здравјето може да е изложен на покусо време. Изложеноста на краткотрајни вредности може да трае највеќе 15 минути и не смее да се повтори повеќе од четирипати во работната смена, при што меѓу две изложености на оваа концентрација мора да измине најмалку 60 минути. Краткотрајната вредност е изразена во mg/m ³ или во ml/m ³ (ppm) а е дадена како многукратни дозволени пречекорувања на граничната вредност; (BAT) биолошка гранична вредност – праг на биолошка гранична вредност, што значи предупредување на опасна хемиска супстанца и нејзини метаболити во ткивата, телесните течности или издишувањето на воздухот, без оглед на тоа, дали опасната хемиска супстанца е внесена во организмот со вдишување, голтање или преку кожата
Regulatory reference	Правилник за минималните барања за безбедност и здравје при работа на вработени од ризици поврзани со изложување на хемиски супстанции („Службен весник на Република Македонија“ бр.46/10)
Switzerland - Occupational Exposure Limits	
Local name	Dichlorométhane / Dichlormethan [Methylenchlorid]
MAK (OEL TWA) [1]	177 mg/m ³
MAK (OEL TWA) [2]	50 ppm
KZGW (OEL STEL)	706 mg/m ³
KZGW (OEL STEL) [ppm]	200 ppm
Critical toxicity	SNC / ZNS
Notation	R, C1 [#] _B , B / H, C1 [#] _B , B
Remark	HSE, NIOSH, DFG
Regulatory reference	www.suva.ch, 28.03.2022

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DICHLOROMETHANE (75-09-2)	
Switzerland - BAT	
Local name	Dichlorométhane / Dichlormethan
BAT	0,5 mg/l (5.9 µmol/l; Paramètre biologique: Dichlorométhane; Substrat d'examen: Sang complet; Moment du prélèvement: Fin de l'exposition, de la période de travail; Remarques: Effet toxique aigu.) / (5.9 µmol/l; Biologischer Parameter: Dichlormethan; Untersuchungsmaterial: Vollblut; Probennahmezeitpunkt: Expositionsende, bzw. Schichtende; Bemerkungen: Akuttoxischer Effekt.) 5 % (Paramètre biologique: CO-hémoglobine; Substrat d'examen: Sang complet; Moment du prélèvement: Fin de l'exposition, de la période de travail; Remarques: Paramètre non spécifique. Influence de l'environnement.) / (Biologischer Parameter: CO-Hämoglobin; Untersuchungsmaterial: Vollblut; Probennahmezeitpunkt: Expositionsende, bzw. Schichtende; Bemerkungen: Nicht spezifischer Parameter. Umwelteinflüsse.)
Regulatory reference	Ordonnance 832.30 (OPA), article 50 al. 3, www.suva.ch/valeurs-limites / Verordnung 832.30 (VUV), Art. 50 Abs. 3, www.suva.ch/grenzwerte
BUTANE (106-97-8)	
Austria - Occupational Exposure Limits	
Local name	Butan (beide Isomeren): n-Butan (R 600)
MAK (OEL TWA)	1900 mg/m³
MAK (OEL TWA) [ppm]	800 ppm
MAK (OEL STEL)	3800 mg/m³ (3x 60(Mow) min)
MAK (OEL STEL) [ppm]	1600 ppm (3x 60(Mow) min)
Regulatory reference	BGBI. II Nr. 156/2021
Belgium - Occupational Exposure Limits	
Local name	Butane, tous isomères: n-butane # Butaan, alle isomeren: n-butaan
OEL STEL	2370 mg/m³
OEL STEL [ppm]	980 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Bulgaria - Occupational Exposure Limits	
Local name	н-Бутан
OEL TWA	1900 mg/m³
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.)
Croatia - Occupational Exposure Limits	
Local name	Butan
GVI (OEL TWA) [1]	1450 mg/m³
GVI (OEL TWA) [2]	600 ppm
KGVI (OEL STEL)	1810 mg/m³
KGVI (OEL STEL) [ppm]	750 ppm
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
Denmark - Occupational Exposure Limits	
Local name	n-Butan

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BUTANE (106-97-8)	
OEL TWA [1]	1200 mg/m ³
OEL TWA [2]	500 ppm
Regulatory reference	BEK nr 1054 af 28/06/2022
Estonia - Occupational Exposure Limits	
Local name	n-butaan
OEL TWA	1500 mg/m ³
OEL TWA [ppm]	800 ppm
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 15.05.2021, 1)
Finland - Occupational Exposure Limits	
Local name	n-Butaani
HTP (OEL TWA) [1]	1900 mg/m ³
HTP (OEL TWA) [2]	800 ppm
HTP (OEL STEL)	2400 mg/m ³
HTP (OEL STEL) [ppm]	1000 ppm
Remark	Happea syrjäyttämällä tukahduttavat kaasut.
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	n-Butane
VME (OEL TWA)	1900 mg/m ³
VME (OEL TWA) [ppm]	800 ppm
Remark	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Butan
AGW (OEL TWA) [1]	2400 mg/m ³
AGW (OEL TWA) [2]	1000 ppm
Peak exposure limitation factor	4(II)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission)
Regulatory reference	TRGS900
Greece - Occupational Exposure Limits	
Local name	Βουτάνιο
OEL TWA	2350 mg/m ³
OEL TWA [ppm]	1000 ppm
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Hungary - Occupational Exposure Limits	
Local name	n-BUTÁN
AK (OEL TWA)	2350 mg/m ³
CK (OEL STEL)	9400 mg/m ³

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BUTANE (106-97-8)	
Remark	N (Irritáló anyagok, egyszerű fojtógázok, csekély egészségkárosító hatással bíró anyagok)
Regulatory reference	5/2020. (II. 6.) ITM rendelet - A kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
Ireland - Occupational Exposure Limits	
Local name	Butane, all isomers: Butane
OEL STEL [ppm]	1000 ppm
Regulatory reference	Chemical Agents Code of Practice 2021
Latvia - Occupational Exposure Limits	
Local name	Butāns (kas satur vairāk nekā 0,1 % butadiēna)
OEL TWA	300 mg/m ³
Remark	Carc. 1A; Muta. 1B
Regulatory reference	Ministru kabineta 2008. gada 29. septembra noteikumi Nr. 803 (Grozījumi Ministru kabineta 2020. gada 7. janvārī noteikumiem Nr. 10).
Poland - Occupational Exposure Limits	
Local name	Butan (n-butan)
NDS (OEL TWA)	1900 mg/m ³
NDSch (OEL STEL)	3000 mg/m ³
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	Butano, todos os isómeros
OEL STEL [ppm]	1000 ppm
Regulatory reference	Norma Portuguesa NP 1796:2014
Slovakia - Occupational Exposure Limits	
Local name	Bután s obsahom ≥ 0,1% butadiénu (n-bután)
NPHV (OEL TWA) [1]	2400 mg/m ³ (TSH)
NPHV (OEL TWA) [2]	1000 ppm (TSH)
Remark	Kategória karcinogénov 1A – Dokázaný karcinogén pre ľudí
Regulatory reference	Nariadenie vlády č. 356/2006 Z. z. (235/2020 Z. z.)
Slovenia - Occupational Exposure Limits	
Local name	butan
OEL TWA	2400 mg/m ³
OEL TWA [ppm]	1000 ppm
OEL STEL	9600 mg/m ³
OEL STEL [ppm]	4000 ppm
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Spain - Occupational Exposure Limits	
Local name	Butano
VLA-ED (OEL TWA) [2]	1000 ppm Hidrocarburos alifáticos alcanos (C1 – C4) y sus mezclas, gases (Butano; Etano; Metano; Propano)
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2022. INSHT

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BUTANE (106-97-8)	
United Kingdom - Occupational Exposure Limits	
Local name	Butane
WEL TWA (OEL TWA) [1]	1450 mg/m ³
WEL TWA (OEL TWA) [2]	600 ppm
WEL STEL (OEL STEL)	1810 mg/m ³
WEL STEL (OEL STEL) [ppm]	750 ppm
Remark	Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Iceland - Occupational Exposure Limits	
Local name	n-Bútan
OEL TWA	1200 mg/m ³
OEL TWA [ppm]	500 ppm
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
Norway - Occupational Exposure Limits	
Local name	Butan
Grenseverdi (OEL TWA) [1]	600 mg/m ³
Grenseverdi (OEL TWA) [2]	250 ppm
Regulatory reference	FOR-2021-06-28-2248
North Macedonia - Occupational Exposure Limits	
Local name	Бутан
OEL TWA	2400 mg/m ³
OEL TWA [ppm]	1000 ppm
KTV	4
Short time value [mg/m ³]	9600 mg/m ³
Short time value [ppm]	4000 ppm
Remark	(KTV) краткотрајна вредност (КТВ) значи концентрација на опасни хемиски супстанции во воздухот на работното место внатре во зона на дишење, на која работникот без опасност по здравјето може да е изложен на покусно време. Изложеноста на краткотрајни вредности може да трае највеќе 15 минути и не смее да се повтори повеќе од четирипати во работната смена, при што меѓу две изложености на оваа концентрација мора да измине најмалку 60 минути. Краткотрајната вредност е изразена во mg/m ³ или во ml/m ³ (ppm) а е дадена како многукратни дозволени пречекорувања на граничната вредност
Regulatory reference	Правилник за минималните барања за безбедност и здравје при работа на вработени од ризици поврзани со изложување на хемиски супстанции („Службен весник на Република Македонија“ бр.46/10)
Switzerland - Occupational Exposure Limits	
Local name	n-Butane / n-Butan
MAK (OEL TWA) [1]	1900 mg/m ³
MAK (OEL TWA) [2]	800 ppm
KZGW (OEL STEL)	7600 mg/m ³

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BUTANE (106-97-8)	
KZGW (OEL STEL) [ppm]	3200 ppm
Critical toxicity	SNC / ZNS
Regulatory reference	www.suva.ch, 28.03.2022
PROPENE (115-07-1)	
Belgium - Occupational Exposure Limits	
Local name	Propylène # Propeen
OEL TWA	875 mg/m³
OEL TWA [ppm]	500 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Denmark - Occupational Exposure Limits	
Local name	Propen (Propylen)
OEL TWA [1]	172 mg/m³
OEL TWA [2]	100 ppm
Regulatory reference	BEK nr 1054 af 28/06/2022
Finland - Occupational Exposure Limits	
Local name	Propyleeni
HTP (OEL TWA) [2]	500 ppm
Remark	Happea syrjäyttämällä tukahduttavat kaasut.
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
Ireland - Occupational Exposure Limits	
Local name	Propylene
OEL TWA [2]	500 ppm
Remark	Asphx. (Gaseous chemical substances which may not produce significant physiological effects in the exposed employee, but when present in high concentrations will act as simple asphyxiants)
Regulatory reference	Chemical Agents Code of Practice 2021
Latvia - Occupational Exposure Limits	
Local name	Propilēns (propēns)
OEL TWA	100 mg/m³
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2011. gada 1. februārī noteikumiem Nr. 92)
Lithuania - Occupational Exposure Limits	
Local name	Propenas (propilenas)
IPRV (OEL TWA)	900 mg/m³
IPRV (OEL TWA) [ppm]	500 ppm
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Poland - Occupational Exposure Limits	
Local name	Propen
NDS (OEL TWA)	2000 mg/m³
NDSch (OEL STEL)	8600 mg/m³

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PROPENE (115-07-1)	
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	Propileno
OEL TWA [ppm]	500 ppm
Remark	A4 (Agente não classificável como carcinogénico no Homem)
Regulatory reference	Norma Portuguesa NP 1796:2014
Spain - Occupational Exposure Limits	
Local name	Propileno
VLA-ED (OEL TWA) [2]	500 ppm
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2022. INSHT
Sweden - Occupational Exposure Limits	
Local name	Propen
NGV (OEL TWA)	900 mg/m ³
NGV (OEL TWA) [ppm]	500 ppm
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
Switzerland - Occupational Exposure Limits	
Local name	Propylène / Propen
MAK (OEL TWA) [1]	17500 mg/m ³
MAK (OEL TWA) [2]	10000 ppm
Critical toxicity	VRS, Asphyxie / OAW, Asphyxie
Regulatory reference	www.suva.ch, 28.03.2022

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):



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8.2.2.1. Eye and face protection

Eye protection:
Safety glasses

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Protective gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Viton® II	6 (> 480 minutes)	0,4	2 (< 1.5)	EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: Characteristic odour.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Extremely flammable aerosol.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: -60 °C
Auto-ignition temperature	: 365
Decomposition temperature	: Not available
pH	: Nicht zutreffend.
Viscosity, kinematic	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: (Wirkstoff 1,33g/ml)
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

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9.2.2. Other safety characteristics

VOC content : 1330 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. 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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

DICHLOROMETHANE (75-09-2)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation : Not classified
pH: Nicht zutreffend.
Serious eye damage/irritation : Not classified
pH: Nicht zutreffend.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

DICHLOROMETHANE (75-09-2)	
NOAEL (oral, rat, 90 days)	6 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Aspiration hazard : Not classified

DICHLOROMETHANE (75-09-2)	
Viscosity, kinematic	0,316 mm²/s

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11.2. Information on other hazards

No additional information available

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

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Not rapidly degradable

DICHLOROMETHANE (75-09-2)

LC50 - Fish [1]	193 mg/l Test organisms (species): Pimephales promelas
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12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

HP Code : HP3 - "Flammable:"

- flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;
- flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
- flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;
- flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;
- water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;
- other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.

HP7 - "Carcinogenic:" waste which induces cancer or increases its incidence

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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 1950	UN 1950	UN 1950	UN 1950	UN 1950
14.2. UN proper shipping name				
AEROSOLS (DICHLOROMETHANE ; BUTANE ; PROPENE)	AEROSOLS (DICHLOROMETHANE ; BUTANE ; PROPENE)	Aerosols, flammable (DICHLOROMETHANE ; BUTANE ; PROPENE)	AEROSOLS (DICHLOROMETHANE ; BUTANE ; PROPENE)	AEROSOLS (DICHLOROMETHANE ; BUTANE ; PROPENE)
Transport document description				
UN 1950 AEROSOLS (DICHLOROMETHANE ; BUTANE ; PROPENE), 2.1, (D)	UN 1950 AEROSOLS (DICHLOROMETHANE ; BUTANE ; PROPENE), 2.1	UN 1950 Aerosols, flammable (DICHLOROMETHANE ; BUTANE ; PROPENE), 2.1	UN 1950 AEROSOLS (DICHLOROMETHANE ; BUTANE ; PROPENE), 2.1	UN 1950 AEROSOLS (DICHLOROMETHANE ; BUTANE ; PROPENE), 2.1
14.3. Transport hazard class(es)				
2.1	2.1	2.1	2.1	2.1
				
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)	: 5F
Special provisions (ADR)	: 190, 327, 344, 625
Limited quantities (ADR)	: 1I
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P207, LP200
Special packing provisions (ADR)	: PP87, RR6, L2
Mixed packing provisions (ADR)	: MP9
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V14
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV9, CV12
Special provisions for carriage - Operation (ADR)	: S2
Tunnel restriction code (ADR)	: D

Transport by sea

Special provisions (IMDG)	: 63, 190, 277, 327, 344, 381, 959
Limited quantities (IMDG)	: SP277
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P207, LP200
Special packing provisions (IMDG)	: PP87, L2
EmS-No. (Fire)	: F-D

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EmS-No. (Spillage)	: S-U
Stowage category (IMDG)	: None
Stowage and handling (IMDG)	: SW1, SW22
Segregation (IMDG)	: SG69

Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Y203
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 203
PCA max net quantity (IATA)	: 75kg
CAO packing instructions (IATA)	: 203
CAO max net quantity (IATA)	: 150kg
Special provisions (IATA)	: A145, A167, A802
ERG code (IATA)	: 10L

Inland waterway transport

Classification code (ADN)	: 5F
Special provisions (ADN)	: 190, 327, 344, 625
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01, VE04
Number of blue cones/lights (ADN)	: 1

Rail transport

Classification code (RID)	: 5F
Special provisions (RID)	: 190, 327, 344, 625
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P207, LP200
Special packing provisions (RID)	: PP87, RR6, L2
Mixed packing provisions (RID)	: MP9
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W14
Special provisions for carriage - Loading, unloading and handling (RID)	: CW9, CW12
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/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

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)

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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)

VOC Directive (2004/42)

VOC content : 1330 g/l

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)

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 12	Occupational diseases caused by the halogenated aliphatic hydrocarbons listed below: dichloromethane; trichloromethane; tribromomethane; triiodomethane; tetrabromomethane; chloroethane; 1,1-dichloroethane; 1,2-dichloroethane; 1,2-dibromoethane; 1,1,1-trichloroethane; 2-bromopropane; 1,2-dichloropropane; trichlorethylene; tetrachlorethylene; dichloroacetylene; trichlorofluoromethane; 1,1,2,2-tetrachloro-1,2-difluoroethane; 1,1,1-trichloro-2,2,2-trifluoroethane; 1,1-dichloro-2,2,2-trifluoroethane; 1,2-dichloro-1,1-difluoroethane; 1,1-dichloro-1-fluoroethane

Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG).
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).

Storage class (LGK, TRGS 510) : LGK 2B - Aerosol dispensers and lighters.

Joint storage table :	LGK 1	LGK 2A	LGK 2B	LGK 3	LGK 4.1A
	LGK 4.1B	LGK 4.2	LGK 4.3	LGK 5.1A	LGK 5.1B
	LGK 5.1C	LGK 5.2	LGK 6.1A	LGK 6.1B	LGK 6.1C
	LGK 6.1D	LGK 6.2	LGK 7	LGK 8A	LGK 8B
	LGK 10	LGK 11	LGK 12	LGK 13	LGK 10-13

Joint storage not permitted for : LGK 1, LGK 4.1A, LGK 4.1B, LGK 4.2, LGK 4.3, LGK 5.1A, LGK 5.1B, LGK 5.2, LGK 6.2, LGK 7.

Joint storage with restrictions permitted for : LGK 2A, LGK 5.1C.

Joint storage permitted for : LGK 2B, LGK 3, LGK 6.1A, LGK 6.1B, LGK 6.1C, LGK 6.1D, LGK 8A, LGK 8B, LGK 10, LGK 11, LGK 12, LGK 13, LGK 10-13.

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

ABM category : Z(1) - non biodegradable substances with hazardous properties for humans and the environment (carcinogenicity/ mutagenicity/ reprotoxicity/bioacumulative potential/ toxicity or persistence)

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

Class for fire hazard : Add boilingpoint

Store unit : Add boilingpoint

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Classification remarks	: Add boilingpoint; Emergency management guidelines for the storage of flammable liquids must be followed
Danish National Regulations	: Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

Switzerland

Storage class (LK)	: LK 2 - Liquefied or pressurized gases
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15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

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
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant

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Abbreviations and acronyms:	
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Carc. 2	Carcinogenicity, Category 2
Flam. Gas 1	Flammable gases, Category 1
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H351	Suspected of causing cancer.
Press. Gas	Gases under pressure

Safety Data Sheet (SDS), EU

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.