PU 306 FOAM B1
SAFETY DATA SHEET

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

1.1. Product identifier

Product form : Mixture
Product name : 306 B1 FIRE PU FOAM
Product code : F00820
Type of product : Aerosols

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

1.2.1. Relevant identified uses
Intended for general public

1.2.2. Uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet

ADROIT ENDÜSTRİYEL YAPIŞTIRICI VE KİMYA SAN.TİC.A.Ş.
Ayazağa Mah. Mimar Sinan Sok. Seba Ofis Bulvarı İş Merkezi
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1.4. Emergency telephone number

Emergency number : +90212 269 36 65

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
Acute toxicity (inhalation:gas) Category 4	H332
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Respiratory sensitisation, Category 1	H334
Skin sensitisation, Category 1	H317
Carcinogenicity, Category 2	H351
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335
Specific target organ toxicity — Repeated exposure, Category 2	H373

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects
Pressurised container: May burst if heated. Extremely flammable aerosol. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. Harmful if inhaled. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS02 GHS07 GHS08

Signal word (CLP) : Danger
Hazardous ingredients : Isocyanic acid, polymethylenepolyphenylene ester

Hazard statements (CLP)	: H222 - Extremely flammable aerosol. H229 - Pressurised container: May burst if heated. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H332 - Harmful if inhaled. H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 - May cause respiratory irritation. H351 - Suspected of causing cancer. H373 - May cause damage to organs through prolonged or repeated exposure.
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. P260 - Do not breathe dust, fume, gas, mist, spray, vapours. P280 - Wear eye protection, face protection, protective clothing, protective gloves. P284 - In case of inadequate ventilation wear respiratory protection. P302+P352 - IF ON SKIN: Wash with plenty of water. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER. P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 122 °F, 50 °C. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH-statements	: EUH204 - Contains isocyanates. May produce an allergic reaction.
Child-resistant fastening	: Not applicable
Tactile warning	: Applicable

2.3. Other hazards

No additional information available

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]
Isocyanic acid, polymethylenepolyphenylene ester	(CAS-No.) 9016-87-9 (EC-No.) 618-498-9 (REACH-no) 01-2119457014-47	30 - 45	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
TCPP	(CAS-No.) 13674-84-5 (EC-No.) 237-158-7	5 - 20	Acute Tox. 4 (Oral), H302
isobutane	(CAS-No.) 75-28-5 (EC-No.) 200-857-2 (EC Index-No.) 601-004-00-0 (REACH-no) 01-2119485395-27	2.5 - 10	Flam. Gas 1, H220 Press. Gas
propane	(CAS-No.) 74-98-6 (EC-No.) 200-827-9 (EC Index-No.) 601-003-00-5 (REACH-no) 01-2119486944-21	2.5 - 10	Flam. Gas 1, H220 Press. Gas

dimethyl ether	(CAS-No.) 115-10-6 (EC-No.) 204-065-8 (EC Index-No.) 603-019-00-8 (REACH-no) 01-2119472128-37	2.5 - 10	Flam. Gas 1, H220 Press. Gas

Full text of H-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. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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

Symptoms/effects after inhalation : May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

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. Foam. Dry chemical, CO2, dry sand, or alcohol-resistant foam.

Unsuitable extinguishing media : High volume water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable aerosol.

Explosion hazard : Pressurised container: May burst if heated.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Nitrogen oxides. Hydrogen cyanide.

5.3. Advice for firefighters

Precautionary measures fire : Stop leak if safe to do so.

Firefighting instructions : Do not enter fire area without proper protective equipment, including respiratory protection. Eliminate all ignition sources if safe to do so. Evacuate area.

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. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

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. Do not allow to enter drains or water courses. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Notify authorities if product enters sewers or public waters. Absorb remaining liquid with sand or inert absorbent and remove to safe place. This material and its container must be disposed of in a safe way, and as per local legislation.

Other information : Collect all waste in suitable and labelled containers and dispose according to local legislation.

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 : 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. Do not breathe dust, fume, gas, mist, spray, vapours. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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 container tightly closed. Keep cool.

Incompatible products : Oxidizing agent. Strong acids. Strong bases. Explosives. Pyrophoric liquids.

Incompatible materials : combustible materials. Direct sunlight. Heat sources. Sources of ignition.

Storage temperature : 5 - 35 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)	
Germany - Occupational Exposure Limits (TRGS 900)	
TRGS 900 Local name	pMDI (als MDI berechnet)
Occupational exposure limit value (mg/m³)	0.05 mg/m³ (E)
Limitation of exposure peaks	1;=2=(I)
TRGS 900 Remark	DFG;H;Sah;Y;12
TRGS 900 Regulatory reference	TRGS900
Slovenia - Occupational Exposure Limits	
Local name	pMDI (računano kot MDI)
OEL TWA (mg/m³)	0.05 mg/m³
OEL STEL (mg/m³)	0.05 mg/m³
Remark (SI)	K (Lastnost lažjega prehajanja snovi v organizem skozi kožo), Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in bat vrednosti)
Regulatory reference	Uradni list RS, št. 78/2018 z dne 4.12.2018

isobutane (75-28-5)	
Austria - Occupational Exposure Limits	
Local name	Butan (beide Isomeren): Isobutan (R 600a)

MAK (mg/m³)	1900 mg/m³
MAK (ppm)	800 ppm
MAK Short time value (mg/m³)	3800 mg/m³
MAK Short time value (ppm)	1600 ppm
Regulatory reference	BGBl. II Nr. 186/2015
Belgium - Occupational Exposure Limits	
Local name	Butane, tous isomères: iso-butane # Butaan, alle isomeren: iso-butaan
Short time value (mg/m³)	2370 mg/m³
Short time value (ppm)	980 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 02/09/2018
Estonia - Occupational Exposure Limits	
Local name	Isobutaan (2-metüülpropaan)
OEL TWA (mg/m³)	1900 mg/m³
OEL TWA (ppm)	800 ppm
Regulatory reference	Vabariigi Valitsuse 18. septembri 2001. a määruse nr 293 (RT I, 30.11.2011, 5)
Finland - Occupational Exposure Limits	
Local name	i-Butaani (2-Metyylipropaani)
HTP-arvo (8h) (mg/m³)	1900 mg/m³
HTP-arvo (8h) (ppm)	800 ppm
HTP-arvo (15 min)	2400 mg/m³
HTP-arvo (15 min) (ppm)	1000 ppm
Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveysministeriö)
Germany - Occupational Exposure Limits (TRGS 900)	
TRGS 900 Local name	Isobutan
Occupational exposure limit value (mg/m³)	2400 mg/m³
Occupational exposure limit value (ppm)	1000 ppm
Limitation of exposure peaks	4(II)
TRGS 900 Remark	DFG
TRGS 900 Regulatory reference	TRGS900
Ireland - Occupational Exposure Limits	
Local name	Butane, all isomers
OEL (15 min ref) (mg/m3)	1000 mg/m³
Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018
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) (izo-bután)

NPHV (priemerná) (mg/m³)	2400 mg/m³
NPHV (priemerná) (ppm)	1000 ppm
Upozornenie (SK)	Kategória karcinogénov 1A – Dokázaný karcinogén pre ľudí
Regulatory reference	Nariadenie vlády č. 83/2015 Z. z.
Slovenia - Occupational Exposure Limits	
Local name	izobutan
OEL TWA (mg/m³)	2400 mg/m³
OEL TWA (ppm)	1000 ppm
OEL STEL (mg/m³)	9600 mg/m³
OEL STEL (ppm)	4000 ppm
Regulatory reference	Uradni list RS, št. 78/2018 z dne 4.12.2018
Switzerland - Occupational Exposure Limits	
Local name	iso-Butane / iso-Butan
MAK (mg/m³)	1900 mg/m³
MAK (ppm)	800 ppm
KZGW (mg/m³)	7600 mg/m³
KZGW (ppm)	3200 ppm
Critical toxicity	SNC / ZNS
Regulatory reference	www.suva.ch, 01.07.2019
USA - ACGIH - Occupational Exposure Limits	
Local name	Isobutane
ACGIH STEL (ppm)	1000 ppm (EX - Explosion hazard)
Remark (ACGIH)	TLV® Basis: CNS impair
Regulatory reference	ACGIH 2019

dimethyl ether (115-10-6)	
EU - Occupational Exposure Limits	
Local name	Dimethylether
IOELV TWA (mg/m³)	1920 mg/m³
IOELV TWA (ppm)	1000 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Austria - Occupational Exposure Limits	
Local name	Dimethylether
MAK (mg/m³)	1910 mg/m³
MAK (ppm)	1000 ppm
MAK Short time value (mg/m³)	3820 mg/m³
MAK Short time value (ppm)	2000 ppm
Regulatory reference	BGBl. II Nr. 186/2015

Belgium - Occupational Exposure Limits	
Local name	Oxyde de diméthyle # Dimethylether
Limit value (mg/m³)	1920 mg/m³
Limit value (ppm)	1000 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 02/09/2018
Bulgaria - Occupational Exposure Limits	
Local name	Диметилетер
OEL TWA (mg/m³)	1920 mg/m³
OEL TWA (ppm)	1000 ppm
Croatia - Occupational Exposure Limits	
Local name	Dimetil-eter
GVI (granična vrijednost izloženosti) (mg/m³)	1920 mg/m³
GVI (granična vrijednost izloženosti) (ppm)	1000 ppm
Naznake (HR)	Direktiva: 2000/39/EZ
Regulatory reference	Pravilnik o izmjenama i dopunama Pravilnika o graničnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim graničnim vrijednostima (NN 91/2018)
Czech Republic - Occupational Exposure Limits	
Local name	Dimethylether
Expoziční limity (PEL) (mg/m³)	1000 mg/m³
Expoziční limity (PEL) (ppm)	531 ppm
Expoziční limity (NPK-P) (mg/m³)	2000 mg/m³
Expoziční limity (NPK-P) (ppm)	1060 ppm
Regulatory reference	Nařízení vlády č. 361/2007 Sb. (zapracovány změny č. 246/2018 Sb.)
Denmark - Occupational Exposure Limits	
Local name	Dimethylether
Grænseværdie (langvarig) (mg/m³)	1920 mg/m³
Grænseværdie (langvarig) (ppm)	1000 ppm
Anmærkninger (DK)	E (betyder, at stoffet har en EF-grænseværdi)
Regulatory reference	BEK nr 655 af 31/05/2018
Estonia - Occupational Exposure Limits	
Local name	Dimetüüleeter
OEL TWA (mg/m³)	1920 mg/m³
OEL TWA (ppm)	1000 ppm
Regulatory reference	Vabariigi Valitsuse 18. septembri 2001. a määruse nr 293 (RT I, 30.11.2011, 5)
Finland - Occupational Exposure Limits	
Local name	Dimetyylieetteri
HTP-arvo (8h) (mg/m³)	2000 mg/m³
HTP-arvo (8h) (ppm)	1000 ppm
Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveysministeriö)

France - Occupational Exposure Limits	
Local name	Oxyde de diméthyle
VME (mg/m³)	1920 mg/m³
VME (ppm)	1000 ppm
Note (FR)	Valeurs règlementaires indicatives
Regulatory reference	Arrêté du 30 juin 2004 modifié (réf.: INRS ED 984, 2016)
Germany - Occupational Exposure Limits (TRGS 900)	
TRGS 900 Local name	Dimethylether
Occupational exposure limit value (mg/m³)	1900 mg/m³
Occupational exposure limit value (ppm)	1000 ppm
Limitation of exposure peaks	8(II)
TRGS 900 Remark	DFG;EU
TRGS 900 Regulatory reference	TRGS900
Gibraltar - Occupational Exposure Limits	
Name of agent	Dimethylether
Eight hours mg/m3	1920 mg/m³
Eight hours ppm	1000 ppm
Regulatory reference	Factories (Control of Chemical Agents at Work) Regulations 2003 (LN. 2018/181)
Greece - Occupational Exposure Limits	
Local name	Διμεθυλαιθέρας
OEL TWA (mg/m³)	1920 mg/m³
OEL TWA (ppm)	1000 ppm
Regulatory reference	Π.Δ. 339/2001
Hungary - Occupational Exposure Limits	
Local name	DIMETIL-ÉTER
AK-érték	1920 mg/m³
Megjegyzések (HU)	EU1 (2000/39/EK irányelvben közölt érték)
Regulatory reference	25/2000. (IX. 30.) EüM–SZCSM együttes rendelet a munkahelyek kémiai biztonságáról
Ireland - Occupational Exposure Limits	
Local name	Dimethyl ether
OEL (8 hours ref) (mg/m³)	1920 mg/m³
OEL (8 hours ref) (ppm)	1000 ppm
Notes (IE)	IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018
Italy - Occupational Exposure Limits	
Local name	Etere dimetilico
OEL TWA (mg/m³)	1920 mg/m³
OEL TWA (ppm)	1000 ppm
Regulatory reference	Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i.

Latvia - Occupational Exposure Limits	
Local name	Dimetilēteris
OEL TWA (mg/m³)	1920 mg/m³
OEL TWA (ppm)	1000 ppm
Regulatory reference	Ministru kabineta 2007.gada 15.maija noteikumiem Nr.325
Lithuania - Occupational Exposure Limits	
Local name	Dimetileteris
IPRV (mg/m³)	1920 mg/m³
IPRV (ppm)	1000 ppm
TPRV (mg/m³)	2280 mg/m³
TPRV (ppm)	1500 ppm
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Luxembourg - Occupational Exposure Limits	
Local name	Oxyde de diméthyle
OEL TWA (mg/m³)	1920 mg/m³
OEL TWA (ppm)	1000 ppm
Regulatory reference	Mémorial A Nº 684 de 2018
Malta - Occupational Exposure Limits	
Local name	Dimethylether
OEL TWA (mg/m³)	1920 mg/m³
OEL TWA (ppm)	1000 ppm
Regulatory reference	S.L.424.24 (L.N.57 of 2018)
Netherlands - Occupational Exposure Limits	
Local name	Dimethylether
Grenswaarde TGG 8H (mg/m³)	950 mg/m³
Grenswaarde TGG 15MIN (mg/m³)	1500 mg/m³
Regulatory reference	Arbeidsomstandighedenregeling 2018
Poland - Occupational Exposure Limits	
Local name	Eter dimetylowy
NDS (mg/m³)	1000 mg/m³
Regulatory reference	Dz. U. 2018 poz. 1286
Romania - Occupational Exposure Limits	
Local name	Dimetil eter/Oxid de dimetil
OEL TWA (mg/m³)	1920 mg/m³
OEL TWA (ppm)	1000 ppm
Regulatory reference	Hotărârea nr. 584/2018
Serbia - Occupational Exposure Limits	
Local name	диметилетар
OEL TWA (mg/m³)	1920 mg/m³

OEL TWA (ppm)	1000 ppm
Slovakia - Occupational Exposure Limits	
Local name	Dimetyléter
NPHV (priemerná) (mg/m³)	1920 mg/m³
NPHV (priemerná) (ppm)	1000 ppm
Regulatory reference	Nariadenie vlády č. 33/2018 Z.z.
Slovenia - Occupational Exposure Limits	
Local name	dimetileter
OEL TWA (mg/m³)	1920 mg/m³
OEL TWA (ppm)	1000 ppm
OEL STEL (mg/m³)	15360 mg/m³
OEL STEL (ppm)	8000 ppm
Remark (SI)	EU
Regulatory reference	Uradni list RS, št. 78/2018 z dne 4.12.2018
Spain - Occupational Exposure Limits	
Local name	Metiléter
VLA-ED (mg/m³)	1920 mg/m³
VLA-ED (ppm)	1000 ppm
Notes	VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2019. INSHT
Sweden - Occupational Exposure Limits	
Local name	Dimetyleter
nivågränsvärde (NVG) (mg/m³)	950 mg/m³
nivågränsvärde (NVG) (ppm)	500 ppm
kortidsvärde (KTV) (mg/m³)	1500 mg/m³
kortidsvärde (KTV) (ppm)	800 ppm
Anmärkning (SE)	V (Vägledande korttidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas)
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	Dimethyl ether
WEL TWA (mg/m³)	766 mg/m³
WEL TWA (ppm)	400 ppm
WEL STEL (mg/m³)	958 mg/m³
WEL STEL (ppm)	500 ppm
Regulatory reference	EH40/2005 (Third edition, 2018). HSE
Iceland - Occupational Exposure Limits	
Local name	Dímetýleter
OEL (8 hours ref) (mg/m³)	1885 mg/m³

OEL (8 hours ref) (ppm)	1000 ppm
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
Norway - Occupational Exposure Limits	
Local name	Dimetyleter
Grenseverdier (AN) (mg/m³)	384 mg/m³
Grenseverdier (AN) (ppm)	200 ppm
Merknader (NO)	E (EU har en veiledende grenseverdi for stoffet)
Regulatory reference	FOR-2018-08-21-1255
Switzerland - Occupational Exposure Limits	
Local name	Ether diméthylique / Dimethylether
MAK (mg/m³)	1910 mg/m³
MAK (ppm)	1000 ppm
Critical toxicity	Formel / Formal
Regulatory reference	www.suva.ch, 01.07.2019
Turkey - Occupational Exposure Limits	
Local name	Dimetileter
OEL TWA (mg/m³)	1920 mg/m³
OEL TWA (ppm)	1000 ppm
Regulatory reference	12 Ağustos 2013 Tarihli ve 28733 Sayılı Resmî Gazete

propane (74-98-6)	
Austria - Occupational Exposure Limits	
Local name	Propan (R 290)
MAK (mg/m³)	1800 mg/m³
MAK (ppm)	1000 ppm
MAK Short time value (mg/m³)	3600 mg/m³
MAK Short time value (ppm)	2000 ppm
Regulatory reference	BGBl. II Nr. 186/2015
Belgium - Occupational Exposure Limits	
Local name	Hydrocarbures aliphatiques sous forme gazeuse: (Alcanes C1-C3) # Alifatische koolwaterstoffen in gas-vorm: Alkanen (C1-C3)
Limit value (ppm)	1000 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 02/09/2018
Bulgaria - Occupational Exposure Limits	
Local name	Пропан
OEL TWA (mg/m³)	1800 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.73 от 4 септември 2018 г.)

Denmark - Occupational Exposure Limits	
Local name	Propan (Flaskegas)
Grænseværdie (langvarig) (mg/m³)	1800 mg/m³
Grænseværdie (langvarig) (ppm)	1000 ppm
Regulatory reference	BEK nr 655 af 31/05/2018
Estonia - Occupational Exposure Limits	
Local name	Propaan
OEL TWA (mg/m³)	1800 mg/m³
OEL TWA (ppm)	1000 ppm
Regulatory reference	Vabariigi Valitsuse 18. septembri 2001. a määruse nr 293 (RT I, 30.11.2011, 5)
Finland - Occupational Exposure Limits	
Local name	Propaani
HTP-arvo (8h) (mg/m³)	1500 mg/m³
HTP-arvo (8h) (ppm)	800 ppm
HTP-arvo (15 min)	2000 mg/m³
HTP-arvo (15 min) (ppm)	1100 ppm
Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveysministeriö)
Germany - Occupational Exposure Limits (TRGS 900)	
TRGS 900 Local name	Propan
Occupational exposure limit value (mg/m³)	1800 mg/m³
Occupational exposure limit value (ppm)	1000 ppm
Limitation of exposure peaks	4(II)
TRGS 900 Remark	DFG
TRGS 900 Regulatory reference	TRGS900
Greece - Occupational Exposure Limits	
Local name	Προπάνιο
OEL TWA (mg/m³)	1800 mg/m³
OEL TWA (ppm)	1000 ppm
Regulatory reference	Π.Δ. 90/1999
Ireland - Occupational Exposure Limits	
Local name	Propane
Notes (IE)	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	Code of Practice for the Chemical Agents Regulations 2018
Latvia - Occupational Exposure Limits	
Local name	Propāns
OEL TWA (mg/m³)	1800 mg/m³
OEL TWA (ppm)	1000 ppm

Regulatory reference	Ministru kabineta 2007.gada 15.maija noteikumiem Nr.325 (Grozījumi Ministru kabineta 2015.gada 7.aprīlī noteikumiem Nr.163)
Poland - Occupational Exposure Limits	
Local name	Propan
NDS (mg/m³)	1800 mg/m³
Regulatory reference	Dz. U. 2018 poz. 1286
Romania - Occupational Exposure Limits	
Local name	Propan
OEL TWA (mg/m³)	1400 mg/m³
OEL TWA (ppm)	778 ppm
OEL STEL (mg/m³)	1800 mg/m³
OEL STEL (ppm)	1000 ppm
Regulatory reference	Hotărârea nr. 584/2018
Slovenia - Occupational Exposure Limits	
Local name	propan
OEL TWA (mg/m³)	1800 mg/m³
OEL TWA (ppm)	1000 ppm
OEL STEL (mg/m³)	7200 mg/m³
OEL STEL (ppm)	4000 ppm
Regulatory reference	Uradni list RS, št. 78/2018 z dne 4.12.2018
Spain - Occupational Exposure Limits	
Local name	Propano
VLA-ED (ppm)	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 2019. INSHT
Iceland - Occupational Exposure Limits	
Local name	Própan (flöskugas)
OEL (8 hours ref) (mg/m³)	1800 mg/m³
OEL (8 hours ref) (ppm)	1000 ppm
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
Norway - Occupational Exposure Limits	
Local name	Propan
Grenseverdier (AN) (mg/m³)	900 mg/m³
Grenseverdier (AN) (ppm)	500 ppm
Regulatory reference	FOR-2018-08-21-1255
Switzerland - Occupational Exposure Limits	
Local name	Propane / Propan
MAK (mg/m³)	1800 mg/m³
MAK (ppm)	1000 ppm

KZGW (mg/m³)	7200 mg/m³
KZGW (ppm)	4000 ppm
Critical toxicity	Formel / Formal
Remark	NIOSH
Regulatory reference	www.suva.ch, 01.07.2019
USA - ACGIH - Occupational Exposure Limits	
Local name	Propane
Remark (ACGIH)	TLV® Basis: Simple Asphyxiant
Regulatory reference	ACGIH 2019

8.2. Exposure controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

Hand protection:
Protective gloves. EN 374. Nitrile rubber gloves

Eye protection:
Chemical goggles or safety glasses. EN 166

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection. EN 14387

Personal protective equipment symbol(s):

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	: Gas
Appearance	: Liquid under pressure.
Colour	: Grey.
Odour	: Characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available

Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Extremely flammable aerosol.
Vapour pressure	: 5 bar
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 19 - 25 kg/m³
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Pressurised container: May burst if heated.
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content : < 2 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Heating may cause a fire or explosion.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Incompatible with water, humid air. Strong acids. Strong bases. Oxidizing agent.

10.6. Hazardous decomposition products

Formaldehyde. Toxic fumes may be released. Methanol.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Harmful if inhaled.

B1 FIRE RATED PU FOAM	
ATE CLP (gases)	12857.143 ppmv/4h

TCPP (13674-84-5)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: Not classified

TCPP (13674-84-5)	
LOAEL (animal/female, F0/P)	99 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
NOAEL (animal/male, F0/P)	85 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

STOT-single exposure : May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

B1 FIRE RATED PU FOAM	
Vaporizer	Aerosol

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

TCPP (13674-84-5)	
LC50 fish 1	51 mg/l Test organisms (species): Pimephales promelas
EC50 Daphnia 1	131 mg/l Test organisms (species): Daphnia magna
EC50 72h algae (1)	82 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h algae (2)	33 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	5.2 mg/l Test organisms (species): other:Fish – chronic QSAR (Esters)

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. 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.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 1950	UN 1950	UN 1950	UN 1950	UN 1950
14.2. UN proper shipping name				
AEROSOLS	AEROSOLS	Aerosols, flammable	AEROSOLS	AEROSOLS
Transport document description				
UN 1950 AEROSOLS, 2.1, (D)	UN 1950 AEROSOLS, 2.1	UN 1950 Aerosols, flammable, 2.1	UN 1950 AEROSOLS, 2.1	UN 1950 AEROSOLS, 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)	: 1l
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
Packing instructions (IMDG)	: P207, LP200
Special packing provisions (IMDG)	: PP87, L2
EmS-No. (Fire)	: F-D
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. Transport in bulk according to Annex II of Marpol and the IBC Code

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

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : < 2 g/l

15.1.2. National regulations

Germany

Reference to AwSV	: Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

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
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: None of the components are listed

Denmark

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 Persons suffering from asthma or eczema and persons who have chronic lung diseases, skin or respiratory allergies to isocyanates should not work with the material The requirements from the Danish Working Environment Authorities regarding work with epoxy resins and isocyanates must be observed during use and disposal The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aerosol 1	Aerosol, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Gas 1	Flammable gases, Category 1
Press. Gas	Gases under pressure
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H220	Extremely flammable gas.

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH204	Contains isocyanates. May produce an allergic reaction.

ADROIT SDS EU

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