Sprayable Foam Gun Grade

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Reference number: 100000029
Issue date: 12/11/2020 Revision date: 05/07/2023 Supersedes version of: 25/11/2021 Version: 2.0

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

1.1. Product identifier

Product form : Mixture
Trade name : Sprayable Foam Gun Grade
Vaporizer : Aerosol

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

1.2.1. Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : Polyurethane

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier
Soudal N.V.
Everdongenlaan 18-20
2300 Turnhout
Belgium
T +32 14 42 42 31 - F +32 14 42 65 14
sds@soudal.com - www.Soudal.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Belgium	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Militaire Reine Astrid	Rue Bruyn 1 1120 Brussels	+32 70 245 245	Please dial: 070 245 245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)

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
Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Reproductive toxicity, Additional category, Effects on or via lactation	H362
Hazardous to the aquatic environment – Chronic Hazard, Category 4	H413

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

Adverse physicochemical, human health and environmental effects

Pressurised container: May burst if heated. Extremely flammable aerosol. May cause harm to breast-fed children. May cause an allergic skin reaction. Causes serious eye irritation. May cause long lasting harmful effects to aquatic life.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS02 GHS07

Signal word (CLP) : Danger

Contains : reaction product of polypropylene glycol and polyadipate with toluendiïsocyanate; alkanes, C14-17, chloro; m-tolylidene diisocyanate

Hazard statements (CLP) : H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H362 - May cause harm to breast-fed children.
H413 - May cause long lasting harmful effects to aquatic life.

Precautionary statements (CLP) : P201 - Obtain special instructions before use.
P210 - Keep away from sparks, open flames, hot surfaces, heat. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.
P261 - Avoid breathing vapours.
P263 - Avoid contact during pregnancy/while nursing.
P280 - Wear protective gloves, protective clothing/eye protection/face protection.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

EUH-statements : EUH066 - Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

The product does not meet the PBT and vPvB classification criteria
Contains PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
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
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
dimethyl ether (115-10-6)	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
2,2'-dimorpholinyldiethyl ether (6425-39-4)	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
alkanes, C14-17, chloro (85535-85-9)	This substance meets the PBT criteria of REACH regulation, annex XIII This substance meets 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 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 %

Component	
alkanes, C14-17, chloro(85535-85-9)	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

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
reaction product of polypropylene glycol and polyadipate with toluendiïsocyanate	EC-No.: 942-774-0	≥ 50 – < 75	Eye Irrit. 2, H319 Skin Sens. 1, H317
dimethyl ether (Propellant gas) substance with national workplace exposure limit(s) (BE); substance with a Community workplace exposure limit	CAS-No.: 115-10-6 EC-No.: 204-065-8 EC Index-No.: 603-019-00-8 REACH-no: 01-2119472128-37	≥ 10 – < 25	Flam. Gas 1A, H220 Press. Gas (Liq.), H280
isobutane (Propellant gas)	CAS-No.: 75-28-5 EC-No.: 200-857-2 EC Index-No.: 601-004-00-0 REACH-no: 01-2119485395-27	≥ 5 – < 10	Flam. Gas 1A, H220 Press. Gas (Liq.), H280
propane (Propellant gas)	CAS-No.: 74-98-6 EC-No.: 200-827-9 EC Index-No.: 601-003-00-5 REACH-no: 01-2119486944-21	≥ 5 – < 10	Flam. Gas 1A, H220 Press. Gas (Liq.), H280
alkanes, C14-17, chloro substance listed as REACH Candidate (Medium-chain chlorinated paraffins (MCCP)) PBT substance; vPvB substance	CAS-No.: 85535-85-9 EC-No.: 287-477-0 EC Index-No.: 602-095-00-X REACH-no: 01-2119519269-33	≥ 5 – < 10	Lact., H362 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10) EUH066
reaction products of phosphoryl trichloride and 2-methyloxirane	CAS-No.: 1244733-77-4 EC-No.: 807-935-0 REACH-no: 01-2119486772-26	≥ 1 – < 5	Acute Tox. 4 (Oral), H302 (ATE=632 mg/kg bodyweight) Aquatic Chronic 3, H412
2,2'-dimorpholinyldiethyl ether	CAS-No.: 6425-39-4 EC-No.: 229-194-7 REACH-no: 01-2119969278-20	≥ 1 – < 5	Eye Irrit. 2, H319
m-tolylidene diisocyanate substance with national workplace exposure limit(s) (BE)	CAS-No.: 26471-62-5 EC-No.: 247-722-4 EC Index-No.: 615-006-00-4 REACH-no: 01-2119454791-34	< 0,1	Carc. 2, H351 Acute Tox. 2 (Inhalation), H330 (ATE=0,35 mg/l/4h) Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317 Aquatic Chronic 3, H412

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits (%)**
m-tolylidene diisocyanate	CAS-No.: 26471-62-5 EC-No.: 247-722-4 EC Index-No.: 615-006-00-4 REACH-no: 01-2119454791-34	(0,1 ≤ C ≤ 100) Resp. Sens. 1, H334

Product subject to CLP Article 1.1.3.7. The disclosure rules of the components is modified in this case.
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. 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 skin contact : 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. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : None known.

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.

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. 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.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Leave the product to solidify. Mechanically recover the product. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

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. Avoid contact during pregnancy/while nursing. Do not breathe vapours, spray, mist. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. 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 : Do not expose to temperatures exceeding 50 °C/ 122 °F. Protect from sunlight. Protect against frost. Store in a well-ventilated place.

Maximum storage period : 1 year

Packaging materials : Aerosol.

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

propane (74-98-6)	
Belgium - Occupational Exposure Limits	
Local name	Hydrocarbures aliphatiques sous forme gazeuse: (Alcanes C1-C3) # Alifatische koolwaterstoffen in gas-vorm: Alkanen (C1-C3)
OEL TWA [ppm]	1000 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021

isobutane (75-28-5)	
Belgium - Occupational Exposure Limits	
Local name	Butane, tous isomères: iso-butane # Butaan, alle isomeren: iso-butaan
OEL STEL	2370 mg/m³
OEL STEL [ppm]	980 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021

dimethyl ether (115-10-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Dimethylether
IOEL TWA	1920 mg/m³
IOEL TWA [ppm]	1000 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Belgium - Occupational Exposure Limits	
Local name	Oxyde de diméthyle # Dimethylether
OEL TWA	1920 mg/m³
OEL TWA [ppm]	1000 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021

m-tolylidene diisocyanate (26471-62-5)	
Belgium - Occupational Exposure Limits	
Local name	Diisocyanate de toluène (mélange d'isomères) # Tolueendi-isocyanaat (mengsel van isomeren)
OEL TWA	0,037 mg/m³
OEL TWA [ppm]	0,005 ppm
OEL STEL	0,14 mg/m³
OEL STEL [ppm]	0,02 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021

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:
Safety glasses (EN 166)

8.2.2.2. Skin protection

Skin and body protection:
Protective clothing (EN 14605 or EN 13034)

Hand protection:
Protective gloves against chemicals (EN 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	:	Variable.
Appearance	:	Aerosols.
Odour	:	characteristic.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Extremely flammable aerosol.
Explosive properties	:	Pressurised container: May burst if heated.
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	Not applicable
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
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	:	0,911 g/l
Relative density	:	Not available
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

% of flammable ingredients	:	28,16 %

9.2.2. Other safety characteristics

VOC content	:	29,67 % (270.03 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.

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

propane (74-98-6)	
LC50 Inhalation - Rat [ppm]	> 800000 ppm (15 minutes, Rat, Male / female, Experimental value, Inhalation (gases))

isobutane (75-28-5)	
LC50 Inhalation - Rat [ppm]	> 800000 ppm (15 minutes, Rat, Male / female, Experimental value, Inhalation (gases))

dimethyl ether (115-10-6)	
LC50 Inhalation - Rat [ppm]	164000 ppm (4 h, Rat, Male, Experimental value, Inhalation (gases), 14 day(s))

reaction products of phosphoryl trichloride and 2-methyloxirane (1244733-77-4)	
LD50 oral rat	632 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 7 mg/l/4h

2,2'-dimorpholinyldiethyl ether (6425-39-4)	
LD50 oral rat	2025 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	3038 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))

alkanes, C14-17, chloro (85535-85-9)	
LD50 oral rat	> 4000 mg/kg bodyweight (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 13500 mg/kg bodyweight (24 h, Rabbit, Read-across, Dermal)
LC50 Inhalation - Rat	> 48,17 mg/l air (1 h, Rat, Read-across, Inhalation (vapours))

m-tolylidene diisocyanate (26471-62-5)	
LD50 dermal rabbit	> 9400 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat (Dust/Mist)	0,35 mg/l/4h

Skin corrosion/irritation : Not classified

propane (74-98-6)	
pH	No data available in the literature

2,2'-dimorpholinyldiethyl ether (6425-39-4)	
pH	10,3

Serious eye damage/irritation : Causes serious eye irritation.

propane (74-98-6)	
pH	No data available in the literature

2,2'-dimorpholinyldiethyl ether (6425-39-4)	
pH	10,3

Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : May cause harm to breast-fed children.
STOT-single exposure : Not classified

m-tolylidene diisocyanate (26471-62-5)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

Sprayable Foam Gun Grade	
Vaporizer	Aerosol

propane (74-98-6)	
Viscosity, kinematic	No data available in the literature

isobutane (75-28-5)	
Viscosity, kinematic	0,013 mm²/s

2,2'-dimorpholinyldiethyl ether (6425-39-4)	
Viscosity, kinematic	216,6 mm²/s (20 °C)

alkanes, C14-17, chloro (85535-85-9)	
Viscosity, kinematic	90 – 12000 mm²/s (20 °C)

m-tolylidene diisocyanate (26471-62-5)	
Viscosity, kinematic	2,221 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long lasting harmful effects to aquatic life.
Hazardous to the aquatic environment, short–term (acute) : Not classified.
Hazardous to the aquatic environment, long–term (chronic) : May cause long lasting harmful effects to aquatic life.
Not rapidly degradable

propane (74-98-6)	
LC50 - Fish [1]	49,9 mg/l (96 h, Pisces, Fresh water, QSAR, Estimated value)
EC50 96h - Algae [1]	11,89 mg/l (ECOSAR v1.00, Algae, Fresh water, QSAR)

isobutane (75-28-5)	
LC50 - Fish [1]	27,98 mg/l (ECOSAR v1.00, 96 h, Pisces, Fresh water, QSAR)
EC50 96h - Algae [1]	8,57 mg/l (ECOSAR v1.00, Algae, Fresh water, QSAR)

dimethyl ether (115-10-6)	
LC50 - Fish [1]	> 4100 mg/l (NEN 6504: Water - Determination of toxicity with Poecilia reticulata, 96 h, Poecilia reticulata, Semi-static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	> 4400 mg/l (NEN 6501: Water - Determination of toxicity with Daphnia magna, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Lethal)
EC50 96h - Algae [1]	154,9 mg/l (ECOSAR v1.00, Algae, QSAR, Estimated value)

reaction products of phosphoryl trichloride and 2-methyloxirane (1244733-77-4)	
LC50 - Fish [1]	51 mg/l Pimephalis promelas
EC50 - Crustacea [1]	131 mg/l Daphnia magna
EC50 72h - Algae [1]	82 mg/l Pseudokirchnerella subcapitata
NOEC chronic crustacea	32 mg/l
NOEC chronic algae	13 mg/l

2,2'-dimorpholinyldiethyl ether (6425-39-4)	
LC50 - Fish [1]	> 2150 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)

alkanes, C14-17, chloro (85535-85-9)	
LC50 - Fish [1]	> 5000 mg/l (Equivalent or similar to OECD 203, 96 h, Alburnus alburnus, Static system, Brackish water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	0,006 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 algae	> 3,2 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

m-tolylidene diisocyanate (26471-62-5)	
LC50 - Fish [1]	164 – 165 mg/l (96 h, Pimephales promelas)
EC50 - Crustacea [1]	11,8 – 12,5 mg/l (48 h, Daphnia magna)
EC50 96h - Algae [1]	4300 mg/l Test organisms (species): Chlorella vulgaris

12.2. Persistence and degradability

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

isobutane (75-28-5)	
Persistence and degradability	Readily biodegradable in water.

dimethyl ether (115-10-6)	
Persistence and degradability	not readily degradable in water.

reaction products of phosphoryl trichloride and 2-methyloxirane (1244733-77-4)	
Persistence and degradability	not readily degradable in water.
Biodegradation	14 % OECD 301E

2,2'-dimorpholinyldiethyl ether (6425-39-4)	
Persistence and degradability	not readily degradable in water.

alkanes, C14-17, chloro (85535-85-9)	
Persistence and degradability	not readily degradable in water.

m-tolylidene diisocyanate (26471-62-5)	
Persistence and degradability	Not readily biodegradable in water.
Biodegradation	0 % (OECD 302 C (Inherent Biodegradability: Modified MITI Test (II)); 28d)

12.3. Bioaccumulative potential

propane (74-98-6)	
Partition coefficient n-octanol/water (Log Pow)	1,09 – 2,8 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

isobutane (75-28-5)	
Partition coefficient n-octanol/water (Log Pow)	1,09 – 2,8 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

dimethyl ether (115-10-6)	
Partition coefficient n-octanol/water (Log Pow)	0,1 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

reaction products of phosphoryl trichloride and 2-methyloxirane (1244733-77-4)	
BCF - Fish [1]	0,8 – 14
Partition coefficient n-octanol/water (Log Pow)	2,68

2,2'-dimorpholinyldiethyl ether (6425-39-4)	
BCF - Fish [1]	2,9 – 3,1 l/kg (Equivalent or similar to OECD 305, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	0,5 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

alkanes, C14-17, chloro (85535-85-9)	
BCF - Fish [1]	6660 – 9140 l/kg (OECD 305: Bioconcentration: Flow-Through Fish Test, 35 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4,7 – 8,3 (Experimental value, Equivalent or similar to OECD 117)

alkanes, C14-17, chloro (85535-85-9)	
Bioaccumulative potential	highly bioaccumulative.

m-tolylidene diisocyanate (26471-62-5)	
Partition coefficient n-octanol/water (Log Pow)	3,43
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

propane (74-98-6)	
Surface tension	No data available in the literature
Ecology - soil	Not applicable (gas).

reaction products of phosphoryl trichloride and 2-methyloxirane (1244733-77-4)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2,24

2,2'-dimorpholinyldiethyl ether (6425-39-4)	
Surface tension	67,7 mN/m (20 °C, 1 g/l, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2,89 (log Koc, Calculated value, pH = 7)
Ecology - soil	Low potential for adsorption in soil.

alkanes, C14-17, chloro (85535-85-9)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	5 – 5,2 (log Koc, Experimental value)
Ecology - soil	Low potential for mobility in soil.

12.5. Results of PBT and vPvB assessment

Sprayable Foam Gun Grade
The product does not meet the PBT and vPvB classification criteria

Component	
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
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
dimethyl ether (115-10-6)	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
2,2'-dimorpholinyldiethyl ether (6425-39-4)	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
alkanes, C14-17, chloro (85535-85-9)	This substance meets the PBT criteria of REACH regulation, annex XIII This substance meets the vPvB criteria of REACH regulation, annex XIII

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.
Sewage disposal recommendations : Do not discharge into drains or the environment.
Ecology - waste materials : Avoid release to the environment.
European List of Waste (LoW) code : 08 05 01* - waste isocyanates
16 05 04* - gases in pressure containers (including halons) containing dangerous substances
15 01 10* - packaging containing residues of or contaminated by dangerous substances

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	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. 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)

EU restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
3(a)	Sprayable Foam Gun Grade	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	Sprayable Foam Gun Grade ; reaction product of polypropylene glycol and polyadipate with toluendiïsocyanate ; alkanes, C14-17, chloro ; reaction products of phosphoryl trichloride and 2-methyloxirane ; 2,2'-dimorpholinyldiethyl ether	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	Sprayable Foam Gun Grade ; alkanes, C14-17, chloro	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

REACH Annex XIV (Authorisation List)

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

REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List in concentrations ≥ 0.1 % or SCL: alkanes, C14-17, chloro (EC 287-477-0, CAS 85535-85-9)

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)

VOC Directive (2004/42)

VOC content : 29,67 % (270.03 g/l)

Seveso Directive (Disaster Risk Reduction)

Seveso Additional information : P3A

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

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
	according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878		

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
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
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
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
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Full text of H- and EUH-statements:	
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aerosol 1	Aerosol, Category 1

Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Carc. 2	Carcinogenicity, Category 2
EUH066	Repeated exposure may cause skin dryness or cracking.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Gas 1A	Flammable gases, Category 1A
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H362	May cause harm to breast-fed children.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
Lact.	Reproductive toxicity, Additional category, Effects on or via lactation
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Aerosol 1	H222;H229	On basis of test data
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
Lact.	H362	Calculation method
Aquatic Chronic 4	H413	Expert judgement

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.