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

1.1 Product identifier
Grafen Professional Gun Foam LX

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses:
Used for:
Installation of doors and windows profiles,
Sealing and insulation works: partition walls, parapets, stair treads,
Filling and insulation of pipe culverts,
Insulating roof, wall and ceiling joints
Joining and sealing in framework constructions,
Thermal insulation of system components of central heating, plumbing-sewerage installations
Sealing of cooling systems,
Thermal insulation of roofs
Only for professional use.
Uses advised against: No data available

1.3 Details of the supplier of the safety data sheet:

Supplier:	**Madejski Spółka Komandytowa**
Street address:	Makuszyńskiego 28 Street
Country/Postcode:	Poland, 31-752 Kraków
Telephone number:	+48 (12) 643 67 67
E-mail:	info@madejski.com.pl

1.4 Emergency telephone number: 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Mixture:
Classification according to Regulation (EC) No 1272/2008 (CLP)
Aerosol 1 H222;H229 Extremely flammable aerosol. Pressurised container: May burst if heated. (Aerosols, Hazard Category 1)
Skin Irrit.2 H315 Causes skin irritation. (Skin corrosion/irritation, Hazard Category 2)
Skin Sens.1 H317 May cause an allergic skin reaction. (Sensitisation — Skin, hazard category 1)
Eye Irrit.2 H319 Causes serious eye irritation. (Serious eye damage/eye irritation, Hazard Category 2)
Acute Tox.4 H332 Harmful if inhaled. (Acute toxicity (inhal.), Hazard Category 4)
Resp. Sens.1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Sensitisation — Respiratory, hazard category 1)
STOT SE.3 H335 May cause respiratory irritation. (Specific target organ toxicity — Single exposure, Hazard Category 3, Respiratory tract irritation)
Carc.2 H351 Suspected of causing cancer. (Carcinogenicity, Hazard Category 2)
Lact. H362 May cause harm to breast-fed children. (Reproductive toxicity, Additional category, Effects on or via lactation)
STOT RE.2 H373 May cause damage to organs through prolonged or repeated exposure (Specific target organ toxicity — Repeated exposure, Hazard Category 2)
Aquatic Chronic 4 H413 May cause long lasting harmful effects to aquatic life. (Hazardous to the aquatic environment — Chronic Hazard, Category 4)

2.2 Label elements
Contains Polymethylene polyphenyl isocyanate, chloroparaffines, C14-17.

Supplemental information on the label:
Persons already sensitised to diisocyanates may develop allergic reactions when using this product.
Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e.type A1 according to standard EN 14387) is used.
For professional users only.
As from 24 August 2023 adequate training is required before industrial or professional use.

Hazard pictograms:

Signal word:
DANGER

Hazard statements:
H222;H229 Extremely flammable aerosol. 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.
H362 May cause harm to breast-fed children.
H373 May cause damage to organs through prolonged or repeated exposure.
H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements:
P102 Keep out of reach of children.
P201 Obtain special instructions before use.
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/vapours/ spray.
P263 Avoid contact during pregnancy and while nursing.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P362+364 Take off contaminated clothing and wash it before reuse
P410 + P412 Protect from sunlight. Do no expose to temperatures exceeding 50^0C/122^0F.
P501 Dispose of contents/container to in accordance with local/ regional/national/international regulation.

2.3 Other hazards
The mixture does not contain substances meeting the PBT or vPvB criteria in accordance with Annex XIII of the REACH Regulation in a concentration ≥0.1% w/w.

SECTION 3: Composition/information on ingredients

3.1 Substances: Not applicable.
3.2 Mixtures:

Name	Identifiers	[% weight]	Classification according to Regulation (EC) No 1278/2008 (CLP).

Polymethylene polyphenyl isocyanate (contains Methylenediphenyl diisocyanate (MDI) >0,1%)	Index No: - EC No: - CAS No: 9016-87-9 REACH Registration No.: polymer	<50	Skin Irrit.2 H315 Skin Sens.1 H317 Eye Irrit.2 H319 Acute Tox.4 H332 Resp. Sens.1 H334 STOT SE.3 H335 Carc.2 H351 STOT RE.2 H373
dimethyl ether	Index No: 603-019-00-8 EC No: 204-065-8 CAS No: 115-10-6 REACH Registration No.: 01-2119472128-37-XXXX	<16	Flam. Gas1 H220 Press. Gas Note U substance with a Community workplace exposure limit
Tris(2-izopropil)-fosfat	Index No: - EC No: 237-158-7 CAS No: 13674-84-5 REACH Registration No.: 01-2119447716-31-XXXX	<8	Acute Tox.4 H302
chloroparaffines, C14-17	Index No: 602-095-00-X EC No: 287-477-0 CAS No: 85535-85-9 REACH Registration No.: 01-2119519269-33-XXXX	<7	Lact. H362 Aquatic Acute1 H400 Aquatic Chronic1 H410 (M=100)

*A registration number is not available for this substance as the substance is exempted from registration or the annual tonnage does not require a registration.
chloroparaffines, C14-17: substance listed as REACH Candidate (Medium-chain chlorinated paraffins (MCCP) (UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17)).
Note U- When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.
The Full Text for all H-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

Following eye contact: Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention if symptoms occur after washing.
Following inhalation: Move the exposed person to fresh air at once. Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. Get medical attention if any discomfort continues.
Following skin contact: Immediately remove contaminated clothing. Wash the skin with soap and water. Contaminated clothing should be washed before re-use. Get medical attention promptly if symptoms occur and persists after washing.
Following ingestion: Never give anything by mouth to an unconscious person. Seek medical advice. Provide ventilation. Call a poison centre or a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

May produce an allergic reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Causes eye and skin irritation.

4.3. Indication of any immediate medical attention and special treatment needed

If any symptoms persist seek medical advice and show the msds or label.
Notes for the doctor: Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: foam, carbon dioxide, dry powder, water spray.

Unsuitable extinguishing media: do not use water in a jet.

5.2 Special hazards arising from the substance or mixture
Thermal decomposition or combustion may liberate toxic fumes.

5.3 Advice for firefighters
Special Fire Fighting Procedures: Wear full protective clothing and self-contained breathing apparatus.
Protective equipment for fire-fighters: Keep containers cool by spraying with water. If possible, remove containers from the danger zone. Prevent from spreading or entering drains, ditches or rivers. Dispose of released and contained material in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel:
Removed from the danger area all persons not involved in the emergency. If necessary, order the evacuation. Avoid contact with skin, eyes. Avoid inhalation of vapours/dust. Provide ventilation.
For emergency responders:
Wear protective clothing as described in Section 8.

6.2 Environmental precautions
Do not discharge into drains, water courses or into the ground. Local authorities should be advised if any exposure to the environment occurs.

6.3 Methods and material for containment and cleaning up
Mechanically recover the product. Collect in a waste container. Dispose of waste according to the applicable local and national regulation.

6.4 Reference to other sections
See Section 8 for information on personal protective equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Use only in a well-ventilated area. Avoid breathing vapor/dust. Avoid contact with eyes, skin. When handling, use appropriate personal protective equipment (see Section 8). Keep away from heat. Do not smoke! When using do not eat or drink. Avoid contact during pregnancy/while nursing.
Advice on general occupational hygiene:
Ensure good ventilation / exhaustion at the workplace. When using do not eat, drink or smoke. Wash hand before and after work with product. Contaminated clothing should be washed before re-use.

7.2 Conditions for safe storage, including any incompatibilities
Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from heat, sparks, sunlight, open flame and smoking. Do not expose to temperatures exceeding 50°C/ 122°F.

7.3 Specific end use(s)
Sealing and insulation.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
International Limits Values:

Substance	CAS No:	Basis / Country	Short Time Value [mg/m^3]	Short Time Value [ppm-Calculated]	Time Weighted Average Exposure Limit	Time Weighted Average Exposure Limit

					[mg/m^3-8 h]	[ppm-Calculated]
dimethyl ether	115-10-6	**EU**	-	-	1920	1000
		Belgium	-	-	1920	1000
		Denmark	3770	2000	1885	1000
		France	-	-	1920	1000
		Hungary	-	-	1920	-
		Italy	-	-	1920	1000
		Latvia	-	-	1920	1000
		Romania	-	-	1920	1000
		Spain	-	-	1920	1000
		Germany	15200	8000	1900	1000

DNEL, PNEC - No data available

8.2 Exposure controls

Appropriate engineering controls

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

Individual protection measures, such as personal protective equipment

Eye/face protection

Avoid contact with eyes. Wear approved chemical safety goggles where eye exposure is reasonably probable. Use equipment for eye protection tested and approved under appropriate government standards such as EN 166.

Skin protection:

Hand protection: Use gloves. Gloves must be inspected prior to use.

The selected protective gloves have to satisfy the specifications of Directive 89/686 / EEC and EN 374.

Other: Wear protective clothing. Contaminated clothing should be washed before re-use.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a face respirator. It is recommended to use respiratory equipment with filter.

Thermal hazards: Protection is not required; the product poses no thermal risk.

Environmental exposure controls

Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour. Do not discharge into drains, water courses or into the ground. Local authorities should be advised if any exposure to the environment occurs.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid (Liquid under pressure)
Colour	Light yellow
Odour	Characteristic
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
Flammability	No data available
Lower and upper explosion limit	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	No data available

Kinematic viscosity	No data available
Solubility	Insoluble in water
Partition coefficient n-octanol/water (log value)	No data available
Vapour pressure	No data available
Density and/or relative density	20 kg/m³ ± 2
Relative vapour density	No data available
Particle characteristics	No data available

9.2 Other information:

No data available.

SECTION 10: Stability and Reactivity

10.1 Reactivity

Not reactive under normal conditions of storage and use. Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions are expected under normal conditions of storage and use.

10.4 Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5 Incompatible materials

No data 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

No data available for the mixture.

dimethyl ether

LC50 (rat, inhalation) 164000 ppm

chloroparaffines, C14-17

LD50 (rat, oral) > 4000 mg/L
LC50 (rat, inhalation) > 48170 mg/m³
LD50 (rabbit, dermal) > 13500 mg/kg bw

Tris(2-izopropil)-fosfat

LD50 (rabbit, dermal) >2000 mg/kg bw

ATEmix- calculated:
Acute toxicity (oral) :>2000 mg/kg; not classified
Acute toxicity (dermal): >2000 mg/kg; not classified
Acute toxicity (inhalation) 10342.45 - 10835.541 ppmv/4h; Harmful if inhaled

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
Based on available data, the classification criteria are not met.
Carcinogenicity
Suspected of causing cancer.
Reproductive toxicity
May cause harm to breast-fed children.
STOT-single exposure .
May cause respiratory irritation.
STOT-repeated exposure
May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard
Based on available data, the classification criteria are not met

11.2 Information on other hazards
No further relevant information available

SECTION 12: Ecological information

12.1 Toxicity
No data available for the mixture.

dimethyl ether		
Fish(Poecilia reticulata)	LC50	> 4.1 g/L exposure time: 96h
Aquatic invertebrates (Daphnia magna)	EC50	> 4.4 g/L exposure time: 48h
Algae (green algae)	EC50	154.917 mg/L exposure time: 96h
chloroparaffines, C14-17		
Fish(Alburnus alburnus)	LC50	> 5000mg/L exposure time: 96h
Aquatic invertebrates (Daphnia magna)	EC50	0.006 mg/L exposure time: 48h
Algae (Pseudokirchnerella subcapitata)	EC50	> 3.2 mg/L exposure time: 72h
Tris(2-izopropil)-fosfat		
Fish (Pimephales promelas)	LC50	51mg/L
Aquatic invertebrates (Daphnia magna)	EC50	131 mg/L
Algae (Pseudokirchneriella subcapitata)	EC50	82 mg/L exposure time: 72h

12.2 Persistence and degradability
No further relevant information available.
dimethyl ether: Non degradable in the soil. Not readily biodegradable in water.
chloroparaffines, C14-17: Not readily biodegradable in the soil. Not readily biodegradable in water.

12.3 Bioaccumulative potential
No further relevant information available.
dimethyl ether: Log Pow 0.1; Low potential for bioaccumulation (Log Kow < 4).
chloroparaffines, C14-17: Log Pow 4.7 – 8.3; High potential for bioaccumulation (BCF > 5000).

12.4 Mobility in soil
No further relevant information available.
chloroparaffines, C14-17: Log Koc 5 – 5.2; Low potential for mobility in soil.

12.5 Results of PBT and vPvB assessment
The mixture does not contain substances meeting the PBT or vPvB criteria in accordance with Annex XIII of the REACH Regulation in a concentration ≥ 0.1%w/w

12.6 Endocrine disrupting properties
No further relevant information available.

12.7 Other adverse effects
No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

SECTION 14: Transport Information

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1. UN number or ID number	1950	1950	1950	1950
14.2. UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	Aerosols, flammable
14.3. Transport hazard class(es)	2.1	2.1	2.1	2.1
14.4. Packing group	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards	NO	NO	NO	NO
14.6. Special precautions for user	Tunnel restriction code (ADR): D	Not applicable	No EmS: F-D No EmS : S-U	Not applicable
14.7. Maritime transport in bulk according to IMO instruments	Not applicable	Not applicable	Not applicable	Not applicable

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Candidate list – SVHC:
chloroparaffines, C14-17: substance listed as REACH Candidate (Medium-chain chlorinated paraffins (MCCP) (UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17)).
The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:
56(a) Methylenediphenyl diisocyanate (MDI) isomers: 4,4'- Methylenediphenyl diisocyanate
1. Shall not be placed on the market after 27 December 2010, as a constituent of mixtures in concentrations equal to or greater than 0,1 % by weight of MDI for supply to the general public, unless suppliers shall ensure before the placing on the market that the packaging
(a) contains protective gloves which comply with the requirements of Council Directive 89/686/EEC;
(b) is marked visibly, legibly and indelibly as follows, and without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures:
— Persons already sensitised to diisocyanates may develop allergic reactions when using this product.
— Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
— This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

74. Diisocyanates, O = C=N-R-N = C=O, with R an aliphatic or aromatic hydrocarbon unit of unspecified length:
1. Shall not be used as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 August 2023, unless:
(a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or
(b) the employer or self-employed ensures that industrial or professional user(s) have successfully completed training on the safe use of diisocyanates prior to the use of the substance(s) or mixture(s).

2. Shall not be placed on the market as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 February 2022, unless:
(a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or
(b) the supplier ensures that the recipient of the substance(s) or mixture(s) is provided with information on the requirements referred to in point (b) of paragraph 1 and the following statement is placed on the packaging, in a manner that is visibly distinct from the rest of the label information: “As from 24 August 2023 adequate training is required before industrial or professional use”.

Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH),
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, andamending Regulation (EC) No 1907/2006 with amendments.
2014/955/EU: Commission Decision of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council Text with EEA relevance.

15.2 Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Classification according to Regulation (EC) No. 1272/2008
Aerosol 1 H222;H229
Skin Irrit.2 H315
Skin Sens.1 H317
Eye Irrit.2 H319
Acute Tox.4 H332
Resp. Sens.1 H334
STOT SE.3 H335
Carc.2 H351
Lact. H362
STOT RE.2 H373
Aquatic Chronic 4 H413

Relevant H-statements (number and full text)
H220 Extremely flammable gas.
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.
H362 May cause harm to breast-fed children.
H373 May cause damage to organs through prolonged or repeated exposure
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Additional Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, Information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

It is the responsibility of persons in receipt of this Product Safety Data Sheet to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces a formulation containing the product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from the Product Safety Data Sheet to their own Product Safety Data Sheet.

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS. As stated above, this Safety Data Sheet has been prepared in compliance with applicable European law. If you purchase this material outside Europe, where compliance laws may differ, you should receive from your local supplier a SDS applicable to the country in which the product is sold and intended to be used. Please note that the appearance and content of the SDS may vary –even for the same product between different countries, reflecting the different compliance requirements.

Update section: 2,3,4,5,6,8,9,11,12,13,15,16.

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