

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

- **1.1 Product identifier**
- **Trade name:** Monofil Vario+ Adhesion Promoter
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Priming
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Monofil Ltd. Aerosol System
Applied House, Fulflood Road
Leigh Park / Havant
Hampshire PO9 5AX
GB-England
Tel.: 0044 2392 470909
Fax.: 0044 2392 470467
- **1.4 Emergency telephone number:** Tel: 0044 2392 470909

2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Aerosol 1 H222-H229 *Extremely flammable aerosol. Pressurised container: May burst if heated.*



GHS08 health hazard

STOT RE 2 H373 *May cause damage to organs through prolonged or repeated exposure.*



GHS07

Skin Irrit. 2 H315 *Causes skin irritation.*

Eye Irrit. 2 H319 *Causes serious eye irritation.*

STOT SE 3 H335 *May cause respiratory irritation.*

Asp. Tox. 1 H304 *May be fatal if swallowed and enters airways.*

Aquatic Chronic 3 H412 *Harmful to aquatic life with long lasting effects.*

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
xylene
4-hydroxy-4-methylpentan-2-one

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.09.2017

Version number 1

Revision: 06.09.2017

Trade name: Monofil Vario+ Adhesion Promoter

(Contd. of page 1)

1,2,4-trimethylbenzene

· Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P251 Do not pierce or burn, even after use.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards**· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.

3 Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures**· Description:** Mixture of substances listed below with nonhazardous additions.**· Dangerous components:**

CAS: 115-10-6 EINECS: 204-065-8 Reg.nr.: 01-2119472128-37	dimethyl ether ⚠ Flam. Gas 1, H220; Press. Gas C, H280	25-50%
CAS: 141-78-6 EINECS: 205-500-4 Reg.nr.: 01-2119475103-46	ethyl acetate ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	10-25%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32	xylene ⚠ Flam. Liq. 3, H226; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≥10-≤20%
CAS: 64742-95-6 EINECS: 265-199-0	Solvent naphtha (petroleum), light arom. ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304	2.5-10%
CAS: 123-42-2 EINECS: 204-626-7 Reg.nr.: 01-2119473975-21	4-hydroxy-4-methylpentan-2-one ⚠ Flam. Liq. 3, H226; ⚠ Eye Irrit. 2, H319; STOT SE 3, H335	2.5-10%
CAS: 100-41-4 EINECS: 202-849-4 Reg.nr.: 01-2119489370-35	ethylbenzene ⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Chronic 3, H412	2.5-10%
CAS: 95-63-6 EINECS: 202-436-9	1,2,4-trimethylbenzene ⚠ Flam. Liq. 3, H226; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	2.5-10%

(Contd. on page 3)

Trade name: Monofil Vario+ Adhesion Promoter

(Contd. of page 2)

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Seek immediate medical advice.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.
- **Information for doctor:**

5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Mouth respiratory protective device.
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.

6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **7.1 Precautions for safe handling**
Keep away from heat and direct sunlight.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.09.2017

Version number 1

Revision: 06.09.2017

Trade name: Monofil Vario+ Adhesion Promoter

(Contd. of page 3)

*Ensure good ventilation/exhaustion at the workplace.**Open and handle receptacle with care.***· Information about fire - and explosion protection:***Do not spray onto a naked flame or any incandescent material.**Keep ignition sources away - Do not smoke.**Protect against electrostatic charges.**Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.***· 7.2 Conditions for safe storage, including any incompatibilities****· Storage:****· Requirements to be met by storerooms and receptacles:***Store in a cool location.**Observe official regulations on storing packagings with pressurised containers.***· Information about storage in one common storage facility: Store away from foodstuffs.****· Further information about storage conditions:***Keep container tightly sealed.**Store in cool, dry conditions in well sealed receptacles.**Protect from heat and direct sunlight.***· Storage class: 2 B****· 7.3 Specific end use(s) No further relevant information available.****8 Exposure controls/personal protection****· Additional information about design of technical facilities: No further data; see item 7.****· 8.1 Control parameters****· Ingredients with limit values that require monitoring at the workplace:****115-10-6 dimethyl ether**WEL Short-term value: 958 mg/m³, 500 ppmLong-term value: 766 mg/m³, 400 ppm**141-78-6 ethyl acetate**

WEL Short-term value: 400 ppm

Long-term value: 200 ppm

1330-20-7 xyleneWEL Short-term value: 441 mg/m³, 100 ppmLong-term value: 220 mg/m³, 50 ppm

Sk; BMGV

123-42-2 4-hydroxy-4-methylpentan-2-oneWEL Short-term value: 362 mg/m³, 75 ppmLong-term value: 241 mg/m³, 50 ppm**100-41-4 ethylbenzene**WEL Short-term value: 552 mg/m³, 125 ppmLong-term value: 441 mg/m³, 100 ppm

Sk

95-63-6 1,2,4-trimethylbenzeneWEL Long-term value: 125 mg/m³, 25 ppm

ILV

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.09.2017

Version number 1

Revision: 06.09.2017

Trade name: Monofil Vario+ Adhesion Promoter

(Contd. of page 4)

· Ingredients with biological limit values:**1330-20-7 xylene**

BMGV 650 mmol/mol creatinine
 Medium: urine
 Sampling time: post shift
 Parameter: methyl hippuric acid

· Additional information: The lists valid during the making were used as basis.**· 8.2 Exposure controls****· Personal protective equipment:****· General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes.
 Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:

Protective gloves (EN 374)

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Breakthrough time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:

Tightly sealed goggles

9 Physical and chemical properties**· 9.1 Information on basic physical and chemical properties****· General Information****· Appearance:**

Form: Aerosol
Colour: According to product specification
· Odour: Characteristic
· Odour threshold: Not determined.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.09.2017

Version number 1

Revision: 06.09.2017

Trade name: Monofil Vario+ Adhesion Promoter

(Contd. of page 5)

· pH-value:	<i>Not determined.</i>
· Change in condition Melting point/freezing point: Initial boiling point and boiling range:	<i>Undetermined.</i> <i>77-78°C</i>
· Flash point:	<i>-42°C (DIN EN ISO 1523:2002)</i>
· Flammability (solid, gas):	<i>Not applicable.</i>
· Ignition temperature:	<i>235°C (DIN 51794)</i>
· Decomposition temperature:	<i>Not determined.</i>
· Auto-ignition temperature:	<i>Product is not selfigniting.</i>
· Explosive properties:	<i>In use, may form flammable/explosive vapour-air mixture.</i>
· Explosion limits: Lower: Upper:	<i>1.1 Vol %</i> <i>18.6 Vol %</i>
· Vapour pressure at 20°C:	<i>5,200 hPa</i>
· Density at 20°C: · Relative density · Vapour density · Evaporation rate	<i>0.765 g/cm³ (DIN EN ISO 2811-1)</i> <i>Not determined.</i> <i>Not determined.</i> <i>Not applicable.</i>
· Solubility in / Miscibility with water:	<i>Not miscible or difficult to mix.</i>
· Partition coefficient: n-octanol/water:	<i>Not determined.</i>
· Viscosity: Dynamic: Kinematic:	<i>Not determined.</i> <i>Not determined.</i>
· Solvent content: VOC (EC)	<i>97.76 %</i>
Solids content (weight-%): · 9.2 Other information	<i>2.2 %</i> <i>No further relevant information available.</i>

10 Stability and reactivity

- **10.1 Reactivity** *No further relevant information available.*
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **10.3 Possibility of hazardous reactions** *No dangerous reactions known.*
- **10.4 Conditions to avoid** *No further relevant information available.*
- **10.5 Incompatible materials:** *No further relevant information available.*
- **10.6 Hazardous decomposition products:** *Carbon monoxide*

11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** *Based on available data, the classification criteria are not met.*

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.09.2017

Version number 1

Revision: 06.09.2017

Trade name: Monofil Vario+ Adhesion Promoter

(Contd. of page 6)

· LD/LC50 values relevant for classification:**1330-20-7 xylene**

Oral	LD50	5,251 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/4 h (Dämpfe)	29 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause respiratory irritation.
- **STOT-repeated exposure**
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard**
May be fatal if swallowed and enters airways.

12 Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxical effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) : hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

15 01 10*	packaging containing residues of or contaminated by hazardous substances
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(Contd. on page 8)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.09.2017

Version number 1



Revision: 06.09.2017

Trade name: Monofil Vario+ Adhesion Promoter

(Contd. of page 7)

- **Uncleaned packaging:**
- **Recommendation:**
Packagings that may not be cleansed are to be disposed of in the same manner as the product.

14 Transport information

· 14.1 UN-Number	UN1950
· ADR, IMDG, IATA	
· 14.2 UN proper shipping name	UN1950 AEROSOLS
· ADR	AEROSOLS
· IMDG	AEROSOLS, flammable
· IATA	
· 14.3 Transport hazard class(es)	
· ADR	
	
· Class	2 5F Gases.
· Label	2.1
· IMDG, IATA	
	
· Class	2.1
· Label	2.1
· 14.4 Packing group	Void
· ADR, IMDG, IATA	
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Warning: Gases.
· Danger code (Kemler):	-
· EMS Number:	F-D,S-U
· Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

(Contd. on page 9)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.09.2017

Version number 1

Revision: 06.09.2017

Trade name: Monofil Vario+ Adhesion Promoter

(Contd. of page 8)

· Transport/Additional information:**· ADR**

· Transport category	2
· Tunnel restriction code	D

· IMDG

· Limited quantities (LQ)	1L
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· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1
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15 Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**· Directive 2012/18/EU****· Named dangerous substances - ANNEX I** None of the ingredients is listed.**· Seveso category P3a** FLAMMABLE AEROSOLS**· Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t**· Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t**· REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3**· National regulations:**

Class	Share in %
NK	50-100

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 06.09.2017

Version number 1

Revision: 06.09.2017

Trade name: Monofil Vario+ Adhesion Promoter

(Contd. of page 9)

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases – Category 1

Aerosol 1: Aerosols – Category 1

Press. Gas C: Gases under pressure – Compressed gas

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

GB