Safety Data Sheet

Revision Date 14-Oct-2021
Version 1

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

1.1 Product identifier

Product name Flowfast 230 Membrane LM

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

Recommended Use Sealant

1.3 Details of the supplier of the safety data sheet

Supplier

Alteco Technik GmbH
Raiffeisenstrasse 16
D-27239 Twistringen
Germany
Phone: +49 (0) 4243 92950
Fax: +49 (0) 4243 929589

This telephone number is available during office hours only

For further information, please contact: **info@alteco-technik.de**

1.4 Emergency telephone number

Emergency telephone number

Chemtrec: +1 703-527-3887 ex-USA
Chemtrec: 1-800-424-9300 USA

Europe	112
Austria	+43 1 406 43 43
Belgium	Poison center (BE): +32 70 245 245
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
Finland	Poison Information Centre (FI):+358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790 Poison Center Nord: +49 551 19240 (24h available English / German)
Ireland	National Poisons Information Centre (IE): +353 1 8379964 / + 353 1 8092566
Iceland	+354 543 2222
Italy	Poison Centre, Milan (IT): +39 02 6610 1029
Luxembourg	112
Netherlands	National Poisons Information Centre (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
Norway	Poisons Information (NO):+ 47 22 591300
Portugal	Poison Information Centre (PT): +351 800 250 250
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	Poisons Information Center (SV):+46 8 33 12 31
Switzerland	Poison Center: Tel 145; +41 44 251 51 51
United Kingdom	111 / 0300 020 0155

2. Hazards identification

2.1 Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Skin corrosion/irritation	Category 2 - (H315)
Skin sensitisation	Category 1 - (H317)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Chronic aquatic toxicity	Category 2 - (H411)
Flammable liquids	Category 2 - (H225)

2.2 Label elements

Signal Word
Danger

Hazard Statements
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H335 - May cause respiratory irritation
H411 - Toxic to aquatic life with long lasting effects
H225 - Highly flammable liquid and vapour

Precautionary Statements - EU (§28, 1272/2008)
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P243 - Take action to prevent static discharges
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P273 - Avoid release to the environment

Contains METHYL METHACRYLATE, 2-(2H-BENZOTRIAZOL-2-YL)-P-CRESOL, DODECANE-1-THIOL, DIETHANOL-P-TOLUIDIN

2.3. Other Hazards
No information available

3. Composition/information on ingredients

3.1 Substances

This product is a mixture. Health hazard information is based on its components

3.2 Mixtures

Chemical Name	EC-No	CAS No.	Weight-%	GHS Classification	REACH Registration Number
METHYL METHACRYLATE	201-297-1	80-62-6	25 - 50	STOT SE 3 (H335) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Flam Liq. 2 (H225)	01-2119452498-28-XXXX
DODECANE-1-THIOL	203-984-1	112-55-0	< 1	Skin Corr. 1C (H314) Skin Sens. 1A (H317) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) (M-factor acute = 10) Aquatic Chronic 1 (H410) (M-factor chronic = 10)	01-2119491318-31-XXXX
2-(2H-BENZOTRIAZOL-2-YL)-P-CRESOL	219-470-5	2440-22-4	< 1	Skin Sens. 1B (H317) Aquatic Chronic 1 (H410)	01-2119583811-34-XXXX
DIETHANOL-P-TOLUIDIN	911-490-9	-	< 1	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Chronic 3 (H412)	01-2119979579-10-XXXX
2-HYDROXYETHYL METHACRYLATE	212-782-2	868-77-9	< 1	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)	01-2119490169-29-XXXX
TRIETHYLENEGLYCOL DIMETHACRYLATE	203-652-6	109-16-0	< 1	Skin Sens. 1 (H317)	01-2119969287-21-XXXX
4-Methoxyphenol	205-769-8	150-76-5	< 0.1	Acute Tox. 4 (H302) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)	01-2119541813-40-XXXX

For the full text of the H-Statements mentioned in this Section, see Section 16

4. First Aid Measures

4.1 Description of first aid measures

General advice Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation Move to fresh air. Keep respiratory tract clear. If unconscious place in recovery position and seek medical advice. If not breathing, give artificial respiration. Call a physician if irritation develops or persists.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician if irritation develops or persists.

Eye contact Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.

Ingestion Gently wipe or rinse the inside of the mouth with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media
Dry powder, Carbon dioxide (CO_2), Alcohol-resistant foam.

Extinguishing media which shall not be used for safety reasons
High volume water jet.

5.2 Special hazards arising from the substance or mixture

Explosive reaction may occur on heating or burning. Burning produces irritant fumes. Flash back possible over considerable distance. Hazardous decomposition products formed under fire conditions.

Hazardous Combustion Products Carbon monoxide Carbon dioxide (CO_2) Thermal decomposition can lead to release of irritating and toxic gases and vapours

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Keep containers and surroundings cool with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions
Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes and clothing.

Advice for emergency responders
For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system.

6.3 Methods and materials for containment and cleaning up

Methods for Containment Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for cleaning up Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment.

6.4 Reference to other sections

See section 8 for more information.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Provide exhaust ventilation close to floor level. Vapours are heavier than air and can cause

suffocation by reducing oxygen available for breathing. Open drum carefully as content may be under pressure. Use only in well-ventilated areas. Vapours may form explosive mixtures with air. Keep product and empty container away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge. Do not use sparking tools. Use only explosion-proof equipment. Have fire extinguishers ready before opening the drum.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Keep away from food, drink and animal feedingstuffs. Keep working clothes separately.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions
Store in original container. Never fill containers more than 80 % because aerial oxygen is necessary for stabilising. Store between 5 and 25 °C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Keep in an area equipped with solvent resistant flooring. Do not store together with oxidizing and self-igniting products.

7.3 Specific end uses

Specific use(s)
No information available

Exposure scenario
No information available.

8. Exposure controls/personal protection

8.1 Control parameters

Exposure Limit Values .

Chemical Name	European Union	Austria	Belgium	Denmark	Finland	France
METHYL METHACRYLATE 80-62-6		STEL 100 ppm STEL 420 mg/m³ TWA: 50 ppm TWA: 210 mg/m³	TWA: 50 ppm TWA: 208 mg/m³ STEL: 100 ppm STEL: 416 mg/m³	TWA: 25 ppm TWA: 102 mg/m³ Skin	TWA: 10 ppm TWA: 42 mg/m³ STEL: 50 ppm STEL: 210 mg/m³	TWA: 50 ppm TWA: 205 mg/m³ STEL: 100 ppm STEL: 410 mg/m³
DODECANE-1-THIOL 112-55-0			TWA: 0.1 ppm TWA: 0.84 mg/m³			
4-Methoxyphenol 150-76-5		STEL 10 mg/m³ TWA: 5 mg/m³	TWA: 5 mg/m³	TWA: 5 mg/m³		TWA: 5 mg/m³

Chemical Name	Germany	Iceland	Ireland	Italy	Luxembourg	The Netherlands
METHYL METHACRYLATE 80-62-6	TWA: 50 ppm TWA: 210 mg/m³	TWA: 50 ppm S* Ceiling: 100 ppm STEL: 100 ppm	TWA: 50 ppm STEL: 100 ppm	STEL: 100 ppm STEL: 410 mg/m³ TWA: 50 ppm TWA: 205 mg/m³	STEL: 100 ppm TWA: 50 ppm	STEL: 410 mg/m³ TWA: 205 mg/m³
DODECANE-1-THIOL 112-55-0			TWA: 0.1 ppm STEL: 0.3 ppm	TWA: 0.1 ppm TWA: 0.8 mg/m³		
4-Methoxyphenol 150-76-5		TWA: 5 mg/m³ Ceiling: 10 mg/m³	TWA: 5 mg/m³ STEL: 15 mg/m³	TWA: 5 mg/m³		

Chemical Name	Norway	Portugal	Spain	Sweden	Switzerland	The United Kingdom
METHYL METHACRYLATE 80-62-6	TWA: 25 ppm TWA: 100 mg/m³ Skin STEL: 100 ppm STEL: 400 mg/m³	STEL: 100 ppm TWA: 50 ppm	STEL: 100 ppm TWA: 50 ppm	LLV: 50 ppm LLV: 200 mg/m³ S* STV: 150 ppm STV: 600 mg/m³	STEL: 100 ppm STEL: 420 mg/m³ TWA: 50 ppm TWA: 210 mg/m³	STEL: 100 ppm STEL: 416 mg/m³ TWA: 50 ppm TWA: 208 mg/m³
DODECANE-1-THIOL 112-55-0		TWA: 0.1 ppm	TWA: 0.1 ppm			
2-HYDROXYETHYL METHACRYLATE 868-77-9	TWA: 2 ppm TWA: 11 mg/m³ STEL: 4 ppm STEL: 16.5 mg/m³					
4-Methoxyphenol 150-76-5	TWA: 5 mg/m³ STEL: 10 mg/m³	TWA: 5 mg/m³	TWA: 5 mg/m³			

TWA: time weighted average

STEL:	Short term exposure limit
LLV:	Exposure Limit Values
STV:	Short Term Value

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2 Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/Face Protection Safety glasses with side-shields. Eye wash bottle with pure water.

Hand Protection Solvent-resistant gloves. Suitable material: butyl-rubber. Glove thickness. >= 0.7 mm. Break through time > 60 minutes. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Wear suitable gloves tested to EN 374. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred.

Skin and body protection Wear suitable protective clothing. Flame retardant antistatic protective clothing. Remove and wash contaminated clothing before re-use.

Respiratory protection In case of insufficient ventilation wear suitable respiratory equipment. Filter type:. A - A/P2. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Preferably a compressed airline breathing apparatus.

Recommended Filter type: A - A/P2 .

Hygiene measures Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Keep away from food, drink and animal feedingstuffs. Keep working clothes separately.

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water system.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Viscous liquid
Colour	pigmented
Odour	acrylic-like
Odour Threshold	0.05 ppm

Property	Values	Remarks
pH		
Melting/freezing point	-48 °C (MMA) / -54 °F	
Boiling point/boiling range	101 °C (MMA) / 214 °F	
Flash Point	12 °C (MMA) / 54 °F	
Evaporation rate	no data available	No information available
Flammability (solid, gas)		No information available
Flammability Limits in Air		
upper flammability limit		No information available
lower flammability limit		No information available
Upper explosion limit	12.5 Vol.% (MMA)	
Lower explosion limit	2.1 Vol.% (MMA)	
Vapour pressure	38.7 mbar (MMA)	(Air = 1.0)
Vapour density		No information available
Specific Gravity		No information available
Water solubility	Insoluble	
Solubility in other solvents		No information available
Partition coefficient	1.38 log POW (MMA)	
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity, kinematic	300 - 700 mPa.s (25 °C)	
Viscosity, dynamic		No information available
Explosive properties		No information available
Oxidising Properties		No information available

9.2 Other information

Volatile organic compounds (VOC) content	No information available
Density	1.23 g/cm³ (25 °C)

10. Stability and Reactivity

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Polymerisation occurs when exposed to white light, ultraviolet light or heat. Polymerisation is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.

Polymerisation occurs when exposed to white light, ultraviolet light or heat. Polymerisation is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.

10.4 Conditions to Avoid

Heat, flames and sparks. Exposure to sunlight.

10.5 Incompatible Materials

Avoid radical-forming starting agents, peroxides and reactive metals, Amines, Heavy metal compounds, Oxidizing agents, Reducing agents

10.6 Hazardous Decomposition Products

No hazardous decomposition products are known.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product Information

.

Inhalation	Irritating to mucous membranes. May cause respiratory irritation.
Eye contact	There are no data available for this product.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Ingestion	There are no data available for this product.

The following values are calculated based on chapter 3.1 of the GHS document

Unknown Acute Toxicity

< 1 % of the mixture consists of ingredient(s) of unknown toxicity
< 1 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
< 1 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
< 1 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
< 1 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
< 1 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
METHYL METHACRYLATE	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	29.8 mg/l (Rat)

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitisation	May cause allergic skin reaction. May cause respiratory irritation.
Germ Cell Mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	No information available.
Target Organs	Eyes. Respiratory system. Skin.
Aspiration hazard	No information available.

12. Ecological information

12.1 Toxicity

Harmful to aquatic life with long lasting effects

< 1 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Ecotoxicity effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
METHYL METHACRYLATE	EC50: 96 h Pseudokirchneriella subcapitata 170 mg/L	LC50: 96 h Pimephales promelas 243 - 275 mg/L flow-through LC50: 96 h Pimephales promelas 125.5 - 190.7 mg/L static LC50: 96 h Lepomis macrochirus 170 - 206 mg/L flow-through LC50: 96 h Lepomis macrochirus 153.9 - 341.8 mg/L static LC50: 96 h Oncorhynchus mykiss 79 mg/L flow-through LC50: 96 h Oncorhynchus mykiss 79 mg/L static LC50: 96 h Poecilia reticulata 326.4 - 426.9 mg/L static	EC50: 48 h Daphnia magna 69 mg/L
2-HYDROXYETHYL METHACRYLATE		LC50: 96 h Pimephales promelas 213 - 242 mg/L flow-through LC50: 96 h Pimephales promelas 227 mg/L	
4-Methoxyphenol		LC50: 96 h Pimephales promelas 84.3 mg/L flow-through LC50: 96 h Oncorhynchus mykiss 28.5 mg/L flow-through	

12.2 Persistence and degradability

Partially biodegradable.

12.3 Bioaccumulative potential

No data are available on the product itself.

Chemical Name	log Pow
METHYL METHACRYLATE	0.7
2-HYDROXYETHYL METHACRYLATE	0.47
4-Methoxyphenol	1.34

12.4 Mobility in soil

Mobility in soil
No information available.

Mobility
No data is available on the product itself.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects.

No information available.

13. Disposal Considerations

13.1 Waste treatment methods

Waste from residues / unused products	Dispose of as hazardous waste in compliance with local and national regulations. European Waste Catalogue. 080111 - waste paint and varnish containing organic solvents or other dangerous substances.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not burn, or use a cutting torch on, the empty drum. Waste Code. 150110 - packaging containing residues of or contaminated by dangerous substances.
Other information	European Waste Catalogue.

14. Transport Information

ADR

14.1 UN	1866
14.2 Proper shipping name	UN 1866 - Resin solution
14.3 Hazard class	3
ADR/RID-Labels	3
14.4 Packing Group	II
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None
Tunnel restriction code	D/E
Hazard identification No	33

IMDG

14.1 UN	1866
14.2 Proper shipping name	UN 1866 - Resin solution
14.3 Hazard class	3
14.4 Packing Group	II
14.5 Marine pollutant	No
14.6 Special Provisions	None

EmS	F-E, S-E
14.7 Transport in bulk according to MARPOL 73/78 and the IBC Code	No information available

IATA

14.1 UN	1866
14.2 Proper shipping name	UN 1866 - Resin solution
14.3 Hazard class	3
14.4 Packing Group	II
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

Germany WGK Classification Water endangering class = 1 (self classification) slightly water endangering

Germany GIS Code RMA 10

Denmark - MAL Factor MAL-kode 3-5

Chemical Name	French RG number	Title
METHYL METHACRYLATE 80-62-6	RG 65,RG 82	-
2-HYDROXYETHYL METHACRYLATE 868-77-9	RG 65	-
4-Methoxyphenol 150-76-5	RG 65	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)
This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

International Inventories

TSCA	-
EINECS/ELINCS	Complies
DSL	-
PICCS	-
ENCS	Complies
IECSC	-
AICS	-
KECL	-
NZIoC	-

Legend

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

15.2 Chemical Safety Assessment

No information available

16. Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage
H317 - May cause an allergic skin reaction
H412 - Harmful to aquatic life with long lasting effects
H314 - Causes severe skin burns and eye damage
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H225 - Highly flammable liquid and vapour

Prepared By	RPM Belgium Regulatory Affairs/Product Safety
Revision Date	14-Oct-2021
Revision Note	Not Applicable.

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet