



Safety Data Sheet Pumaflex 31 MV

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

1.1 Product identifier

Product name PUMAFLEX 31MV

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 TQ3 North America
23 Commerce Rd. Unit A
Fairfield, NJ 07004
Phone: 973-882-7900
Fax: 973-882-7905
This telephone number is available during office hours only.

For further information, please contact: info@tq-3.com

1.4 Emergency telephone number

Emergency telephone number

Chemtrec: 1-800-424-9300 for US

2. Hazards identification

2.1 Classification of the substance or

mixture Flammable Liquid, 3

Skin corrosion/irritation	Category 2 - (H315)
Skin sensitization	Category 1 -
(H317) Specific target organ toxicity (single exposure)	Category 3 -
(H335) Chronic aquatic toxicity	Category 3 -
(H412)	
Flammable liquids	Category 2 - (H225)

2.2 Label elements

For the full text of the R-phrases mentioned in this Section, see Section 16

Signal Word: Danger

Hazard pictograms



Hazard Statements

- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction
- H335 - May cause respiratory irritation
- H412 - Harmful to aquatic life with long lasting effects
- H225 - Highly flammable liquid and vapor

EUH208 - May produce an allergic reaction

Precautionary Statements

- P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
- P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
- P273 - Avoid release to the environment
- P243 - Take precautionary measures against static discharge
- P271 - Use only outdoors or in a well-ventilated area
- P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray

Hazardous ingredients which must be listed on the label

Contains METHYL METHACRYLATE

Supplemental information

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 %	Classification (67/548/EEC)	Classification (1272/2008/EC)	REACH Registration Number
METHYL METHACRYLATE	201-297-1	80-62-6	25 - 50	F; R11 Xi; R37/38 R43	STOT SE 3 (H335) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Flam Liq. 2 (H225)	01-2119452498-28-XXXX
DECANEDIOIC ACID ESTER	255-437-1	41556-26-7	< 1	R43 N; R50	Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	17-2119931815-34-XXXX
TRIETHYLENGLYCOL DIMETHACRYLATE	203-652-6	109-16-0	< 1	R43	Skin Sens. 1 (H317)	01-2119969287-21-XXXX

DODECANETHIOL	203-984-1	112-55-0	< 1	Xi; R36/37/38 R53	Skin Corr. 1C (H314) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119491318-31-XXXX
DECANEDIOIC ACID	280-060-4	82919-37-7	< 1	R43 N; R50-53	Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	05-2114346636-43-XXXX
2-HYDROXYETHYL METHACRYLATE	212-782-2	868-77-9	< 1	Xi; R36/38 R43	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)	01-2119490169-29-XXXX
4-Methoxyphenol	205-769-8	150-76-5	< 0.1	Xn; R22 Xi; R36 R43	Acute Tox. 4 (H302) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)	no data available

For the full text of the R-phrases mentioned in this Section, see Section 16

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

4. First Aid Measures

Description of first-aid measures

General Advice	Move out of dangerous area. Take off contaminated clothing immediately.
Eye Contact	Remove contact lenses, if present. Rinse immediately with plenty of water, also under eyelids, for at least 15 minutes. Consult a physician.
Skin Contact	Wash off immediately with soap and plenty of water. Remove all contaminated clothes and shoes. Call a physician if irritation develops or persists.
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.
Inhalation	Move to fresh air. Keep respiratory tract clear. If unconscious place in recovery position and seek medical advise. If not breathing, give artificial respiration. Call a physician if irritation develops or persists.

4.1 Most important symptoms and effects, both acute and delayed

Main Symptoms No information available

4.2 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, Foam, Carbon dioxide (CO₂), Water mist.

Extinguishing media which shall not be used for safety reasons

High volume water jet.

5.2 Special hazards arising from the substance or mixture

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

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

Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

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 vapors). Use only explosion-proof equipment.

6.4 Reference to other sections

See Section 12 for additional 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. Vapors 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. Vapors 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.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

Store in original container. Never fill containers more than 80 % because aerial oxygen is necessary for stabilising. Store between 41 and 77 °F (5 - 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 METHACRYLAT E 80-62-6		STEL 100 ppm STEL 420 mg/m ³ TWA: 50 ppm TWA: 210 mg/m ³	TWA: 50 ppm TWA: 208 mg/m ³ STEL: 100 ppm STEL: 416 mg/m ³	TWA: 25 ppm TWA: 102 mg/m ³ Skin	TWA: 10 ppm TWA: 42 mg/m ³ STEL: 50 ppm STEL: 210 mg/m ³	TWA: 50 ppm TWA: 205 mg/m ³ STEL: 100 ppm STEL: 410 mg/m ³
Chemical Name	Germany	Iceland	Ireland	Italy	Luxembourg	The Netherlands
METHYL METHACRYLAT E 80-62-6	TWA: 50 ppm TWA: 210 mg/m ³	TWA: 50 ppm S* Ceiling: 100 ppm STEL: 100 ppm	TWA: 50 ppm STEL: 100 ppm	STEL: 100 ppm STEL: 410 mg/m ³ TWA: 50 ppm TWA: 205 mg/m ³	STEL: 100 ppm TWA: 50 ppm	STEL: 410 mg/m ³ TWA: 205 mg/m ³
Chemical Name	Norway	Portugal	Spain	Sweden	Switzerland	The United Kingdom
METHYL METHACRYLAT E 80-62-6	TWA: 25 ppm TWA: 100 mg/m ³ Skin STEL: 100 ppm STEL: 400 mg/m ³	STEL: 100 ppm TWA: 50 ppm	STEL: 100 ppm TWA: 50 ppm	LLV: 50 ppm LLV: 200 mg/m ³ S* STV: 150 ppm STV: 600 mg/m ³	STEL: 100 ppm STEL: 420 mg/m ³ TWA: 50 ppm TWA: 210 mg/m ³	STEL: 100 ppm STEL: 416 mg/m ³ TWA: 50 ppm TWA: 208 mg/m ³
2- HYDROXYETHYL METHACRYLATE 868-77-9	TWA: 2 ppm TWA: 11 mg/m ³ STEL: 4 ppm STEL: 16.5 mg/m ³					

TWA: Time weighted average
 STEL: Short term exposure limit
 LLV: Level Limit Value
 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**

Tightly fitting safety goggles. Eye wash bottle with pure water

Hand Protection

Solvent-resistant gloves. Suitable material: butyl-rubber. 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). Follow the skin protection plan.

Skin & body protection

Follow the skin protection plan. Flame retardant antistatic protective clothing. Remove and wash contaminated clothing before re-use.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Preferably a compressed airline breathing apparatus.

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	
Color	pigmented	
Odor	like acrylic	
Odor Threshold	0.05 ppm	
Property	Values	
pH	Not Applicable	
Boiling point/boiling range	100.3 °C (MMA) / 213 °F	
Flash Point	11.5 °C (MMA) / 53 °F	
Explosion Limits		
upper	12.5 Vol.% (MMA)	
lower	2.1 Vol.% (MMA)	
Vapor pressure	38.7 mbar (MMA)	(Air = 1.0)
Vapor density	Not Applicable	
Relative density	Not Applicable	
Water solubility	insoluble	
Partition coefficient: n-octanol/water	1.38 log POW (MMA)	
Viscosity, kinematic	490 - 700 mPa.s (25 °C)	
Explosive properties	Not Applicable	
Evaporation rate	Not Applicable	

9.2 Other information

Volatile organic compounds (VOC) content	Not Applicable
Density	1.36 g/cm ³ (25 °C)
Bulk Density	Not Applicable
Melting/freezing point	-48 °C (MMA) / -54 °F
Autoignition temperature	

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

Hazardous Polymerization

Polymerization occurs when exposed to white light, ultraviolet light or heat. Polymerization 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 respiratory system. Irritating to mucous membranes.

Eye contact There are no data available for this product.

Skin contact Irritating to skin. May cause sensitization by skin contact.

Ingestion There are no data available for this product.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
METHYL METHACRYLATE	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	4632 ppm (Rat) 4 h

Chronic toxicity No information available.

Skin corrosion/irritation Irritating to skin.

Respiratory or skin sensitization May cause sensitization by skin contact.

Germ Cell Mutagenicity No information available.

Reproductive toxicity No information available.

Specific target organ systemic toxicity (single exposure) No information available.

Specific target organ systemic toxicity (repeated exposure) No information available.

Aspiration hazard No information available

Carcinogenicity No information available.

12. Ecological information

12.1 Toxicity

Ecotoxicity effects Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. .

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	EC50: 48 h Daphnia magna 69 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	
DECANEDIOIC ACID ESTER		LC50: 96 h Lepomis macrochirus 0.97 mg/L static	
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
DECANEDIOIC ACID ESTER	0.37
2-HYDROXYETHYL METHACRYLATE	0.47
4-Methoxyphenol	1.34

12.4 Mobility in soil

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. - 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 - packaging containing residues of or contaminated by dangerous substances.

Other information

14. Transport Information

Reactive Flammable Material.

ADR

UN Number	1866
Proper shipping name	1866 - Resin solution
Hazard class	3
Packing Group	II
Tunnel Restriction Code	D/E
ADR/RID-Labels	3
Hazard identification No	33

IMDG

UN Number	1866
Proper shipping name	1866 - Resin solution
Hazard class	3
Packing Group	II
Marine pollutant	No
EmS No.	F-E, S-E

IATA

UN Number	1866
Proper shipping name	1866 - Resin solution
Hazard class	3
Packing Group	II

15. Regulatory information

15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture National regulatory information**

Chemical Name	French RG number
METHYL METHACRYLATE	RG 65, RG 82
2-HYDROXYETHYL METHACRYLATE	RG 65
4-Methoxyphenol	RG 65

International Inventories

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

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

15.2 Chemical Safety Assessment

No information available

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R11 - Highly flammable
R43 - May cause sensitization by skin contact
R50 - Very toxic to aquatic organisms
R53 - May cause long-term adverse effects in the aquatic environment
R37/38 - Irritating to respiratory system and skin
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R36/38 - Irritating to eyes and skin
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Full text of H-Statements referred to under section 3

H317 - May cause an allergic skin reaction
H314 - Causes severe skin burns and eye damage
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H335 - May cause respiratory irritation
H315 - Causes skin irritation
H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation

Legal disclaimer:

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Prepared By	TQ3 North America, Inc.
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End of Safety Data Sheet