

Safety Data Sheet



Revision Date 29/09/2017
SDS 21 Version 1.2

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

1.1 Product identifier

Product name PumaCoat (all grades)

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

Recommended Use Sealer / Topcoat for MMA surfacing

1.3 Details of the supplier of the safety data sheet

Supplier Hitex Traffic Safety Limited,
Cloister Way,
Ellesmere Port,
Cheshire, CH65 4EL
United Kingdom

Phone: +44 (0) 151 355 4100
Fax: +44 (0) 151 355 4171
This telephone number is available during office hours only.

For further information, please contact: info@hitexinternational.com

1.4 Emergency telephone number

Emergency telephone number Chemtrec: 1-800-424-9300 for US
+1 703-527-3887 outside US

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
Iceland	+354 543 2222
Italy	Poison Center, Milan (IT): +39 02 6610 1029
Luxembourg	112
Netherlands	National Poisons Information Center (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 Center (PT): +351 21 330 3284
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	NHS Direct (UK): +44 (0) 845 46 47; 111

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) 1272/2008

PumaCoat (all grades)

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
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

Hazard pictograms



Signal Word

Danger

Hazard Statements

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H412 - Harmful to aquatic life with long lasting effects

H225 - Highly flammable liquid and vapor

Precautionary Statements - EU (§28.1272/2008)

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 2-ETHYLHEXYL ACRYLATE, TRIETHYLENGLYCOL DIMETHACRYLATE, METHYL METHACRYLATE

Supplemental information

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 %	Classification (1272/2008/EC)	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
2-ETHYLHEXYL ACRYLATE	203-080-7	103-11-7	10 - 25	Skin Irrit. 2 (H315) Skin Sens. 1 (H317) STOT SE 3 (H335) Aquatic Chronic 3 (H412)	01-2119453158-37- XXXX
BUTYLDIGLYCOL METHACRYLATE	230-813-8	7328-22-5	10 - 25	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	no data available
TRIETHYLENGLYCOL DIMETHACRYLATE	203-652-6	109-16-0	1 - 2.5	Skin Sens. 1 (H317)	01-2119969287-21- XXXX
2-(2H-BENZOTRIAZOLE-2-YL)-PARA-CRESOL	219-470-5	2440-22-4	< 1	Skin Sens. 1 (H317) Aquatic Chronic 1 (H410)	no data available

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.
Eye contact	Remove contact lenses, if present. Rinse immediately with plenty of water, also under the 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. Rinse mouth with water and afterwards drink plenty of water or milk.
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.

4.2 Most important symptoms and effects, both acute and delayed

Main 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, Foam, Carbon dioxide (CO₂), Watermist.

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.

PumaCoat (all grades)
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/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
2-ETHYLHEXYL ACRYLATE 103-11-7		Skin STEL 10 ppm STEL 82 mg/m ³ TWA: 10 ppm TWA: 82 mg/m ³ Ceiling 10 ppm Ceiling 82 mg/m ³				
Chemical Name	Germany	Iceland	Ireland	Italy	Luxembourg	The Netherlands
METHYL METHACRYLATE 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
2-ETHYLHEXYL ACRYLATE 103-11-7	TWA: 5 ppm TWA: 38 mg/m ³					
Chemical Name	Norway	Portugal	Spain	Sweden	Switzerland	The United Kingdom
METHYL METHACRYLATE 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-ETHYLHEXYL ACRYLATE 103-11-7					STEL: 5 ppm STEL: 38 mg/m ³ TWA: 5 ppm TWA: 38 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
Hand Protection**

Tightly fitting safety goggles. Eye wash bottle with pure water.
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 and body protection
Respiratory protection**

Wear protective gloves/ protective clothing.
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

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	Violet (unpigmented) or pigmented colour (eg red, green etc to suit)
Odor	like acrylic
Odor Threshold	0.05 ppm

<u>Property</u>	<u>Values</u>	<u>Remarks • Methods</u>
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	140 - 180 mPa.s (25 °C)	
Explosive properties	Not Applicable	
Evaporation rate	Not Applicable	

9.2 Other information

Volatile organic compounds (VOC) content Not Applicable

Density	0.98 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.

PumaCoat (all grades)

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
2-ETHYLHEXYL ACRYLATE	4435 mg/kg (Rat)	7522 mg/kg (Rabbit)	

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.
Carcinogenicity	No information available.
Aspiration hazard	No information available.

12. Ecological information

12.1 Toxicity

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-ETHYLHEXYL ACRYLATE	EC50: 72 h Desmodesmus subspicatus 44 mg/L EC50: 96 h Desmodesmus subspicatus 47 mg/L		EC50: 48 h Daphnia magna 17.45 mg/L

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-ETHYLHEXYL ACRYLATE	4.64

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

Endocrine Disruptor Information

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 Catalog.

PumaCoat (all grades)

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

Germany WGK Classification Water endangering class = 1 (self classification) slightly water endangering
Germany GIS Code RMA 10

Denmark - MAL Factor MAL-kode 4-5

Chemical Name	French RG number
METHYL METHACRYLATE	RG 65, RG 82
2-ETHYLHEXYL ACRYLATE	RG 65

International Inventories

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

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDL - 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
"- " - Unknown. Not listed.

PumaCoat (all grades)

15.2 Chemical Safety Assessment

No information available

16. Other information

Full text of H-Statements referred to under section 3

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

H410 - Very toxic to aquatic life with long lasting effects

H319 - Causes serious eye irritation

H225 - Highly flammable liquid and vapor

Revision Date 29th September 2017

Revision Note Updated to remove obsolete classification

This safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008/EC.

Disclaimer

The information contained herein is accurate to the best of our knowledge and belief as at the date issued. The information and recommendations are offered for the user's consideration and examination for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. It is the user's responsibility to satisfy themselves as to the suitability of such information for a particular use and to carry out their own COSHH assessment.

End of Safety Data Sheet