

Vorpa Resin capsule VF P

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Resine capsule VF P

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product name: VORPA VFP RESIN BONDED ANCHOR IN CAPSULE
Product code: 03901 – 03902 – 03904 – 03906 – 03908
Distributor Company: Vorpa srl – Via San Leo, 5 – 47838 RICCIONE (RN)
For Information/Emergency: Distributor +39 0541 607111

2. HAZARD IDENTIFICATION

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Hazard description: Xi-irritant
Information concerning particular hazards for human environment : R36/37 – Irritating to eyes and respiratory system
 R43 - May cause sensitization by skin contact

3. COMPOSITION/INFORMATION ON INGREDIENTS

Identification numbers	Substance name	Classification	Content (wt%)
Resin			
CAS: 97-90-5 EINECS (WE): 202-617-2	Ethylene dimethacrylate	Xi: R 37,43	4,0 - 9,0
CAS: 27813-02-1 EINECS (WE): 248-666-3	Methacrylic acid, monoester with propane-1,2-diol	Xi: R 36,43	4,0 - 9,0
CAS: 872-50-4 EINECS (WE): 212-828-1	1-methyl-2-pyrrolidone	Xi: R36/37/38	< 2,5
CAS: 38668-48-3 EINECS (WE): 254-075-1	1,1'-(p-tolylimino) dipropan-2-ol	T; R 25 – Xi; R 36 R 52/53	< 0,8
Hardener			
CAS: 94-36-0 EINECS (WE): 202-327-6	Dibenzoyl peroxide	E; R2 – Xi; R 36, 43	< 7,0
CAS: 84-61-7 EINECS (WE): 201-545-9	Dicyclohexyl phthalate	-	< 7,0

For the wording of the listed risk phrases refer to section 16.

4. FIRST AID MEASURES

Inhalation: Supply fresh air and to be secure call for a doctor. In case of unconsciousness place patient stably in side position for transport.
Skin contact: Immediately wash with water and soap and rinse thoroughly. If skin irritation does not recede consult a doctor.
Eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Ingestion: Seek for medical advice immediately.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing agents: CO₂. ABC powder or water spray. Cool endangered receptacles with water spray. **Do not use high volume water jet as an extinguishing agent.**
Special hazards: In case of fire, under certain conditions, traces of toxic gases cannot be excluded (e.g. hydrocarbons, carbon dioxide, monoxide).
Protective equipment: Use full body protection and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Person-related safety measures: Keep away from sources of ignition. Avoid contact with eyes, skin. Wear protective equipment. Keep unprotected persons away.
Measures for environmental protection: Do not allow to enter sewers/surface or ground water.
Measures for cleaning/collecting: Pick up mechanically, collect in a suitable receptacle and dispose in accordance with section 13.

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7. HANDLING AND STORAGE

Information for safe handling:

The usual precautionary measures are to be adhered to, when handling chemicals. People with tendency to skin allergy should avoid contact with the product.

Storage:

Keep the product tightly sealed in the original receptacle. Store at the temperature not exceeding 25°C (to maintain quality). Protect from heat and direct sunlight. Avoid open flames and sparks.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities:

Ensure sufficient ventilation at work place.

Ingredients with limit values that require monitoring at the workplace
CAS: 27813-02-1 methacrylic acid, monoester with propane-1,2-diol
WEL: 5 mg/m ³
CAS: 872-50-4 1-methyl-2-pyrrolidone
LTEL: 120 mg/m ³
STEL: 240 mg/m ³
CAS: 94-36-0 dibenzoyl peroxide
WEL: 5 mg/m ³

Personal protective equipment:

The usual precautionary measures are to be adhered to, when handling chemicals. Keep away from foodstuffs, beverages and feed. Do not smoke while using the product. Do not breathe gas/vapour.

Respiratory protection:

Use respiratory with appropriate filter if gases/vapours are released in bad-ventilated places. Recommended filter type: A.

Protection of hands:

Not necessary under normal conditions of use. If possibility of contact with product contents exist use gloves. Only use chemical-protective gloves. Only use chemical-protective gloves with CE-labelling of category III. It is recommended to use gloves made of butyl rubber.

Eye protection:

Not necessary under normal conditions of use, however it is recommended to use protective goggles.

Body protection:

It is recommended to use protective work clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Form:	Resin – liquid; hardener - powder
Colour:	Resin – yellowish; hardener - red
Odour:	Characteristic

Relevant information for safety, health and environment

Melting point:	n.a.
Boiling point:	n.a.
Flash point:	110°C (estimated value for resin part)
Self-igniting:	Product is not self-igniting
Danger of explosion:	Product does not present an explosion hazard
Flammability:	Product is inflammable
Viscosity (23°C) (ISO 3219:2000):	500 - 700 mPas
Decomposition temperature:	Hardener: +50°C (SADT)
Density:	0,98 [g/cm ³] at 23°C (resin)
Solubility in/miscibility with:	Insoluble
Solubility in other solvents:	Acetone, IPA

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10. STABILITY AND REACTIVITY

- Thermal decomposition/conditions to be avoided:**
 SADT (Self Accelerating Decomposition Temperature) is the lowest temperature at which self accelerating decomposition may occur with substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion of fire can cause decomposition at or above the temperature. No decomposition if used and stored according to specifications. To avoid thermal decomposition do not overheat.
- Materials to be avoided:**
 Acids, alkalis, heavy metal compounds, amines, metal salts (iron and aluminium chlorides), oxidizing agents.
- Dangerous reactions:**
 Self accelerating decomposition at SADT. Contact with oxidizing agents can cause exothermic reaction, also at low oxygen concentration.
- Dangerous decomposition products:**
 Irritating vapours, gases. Unidentified hydrocarbons, carbon monoxide, carbon dioxide.

11. TOXICOLOGICAL INFORMATION

- Acute toxicity:**

97-90-5 ethylene dimethacrylate
LD ₅₀ (oral): 3300 mg/Kg (<i>Rattus</i>)
LD ₅₀ (oral): 2000 mg/Kg (<i>Mus</i>)
27813-02-1 methacrylic acid, monoester with propane-1,2-diol
LD ₅₀ (oral): 11200 mg/Kg (<i>Rattus</i>)
LD ₅₀ (derm): > 5000 mg/Kg (<i>Leporidae</i>)
872-50-4 1-methyl-2-pyrrolidone
LD ₅₀ (oral): 3600 mg/Kg (<i>Rattus</i>)
LD ₅₀ (oral): 5130 mg/Kg (<i>Mus</i>)
LD ₅₀ (derm): 7000 mg/Kg (<i>Rattus</i>)
LD ₅₀ (derm): 8000 mg/Kg (<i>Leporidae</i>)
LC ₅₀ (inh) 4h: > 5,1 mg/l (<i>Rattus</i>)
94-36-0 dibenzoyl peroxide
LD ₅₀ (oral): > 5000 mg/Kg (<i>Rattus</i>)
LD ₅₀ (inh): > 24,3 mg/l (<i>Rattus</i>)
84-61-7 dicyclohexyl phthalate
LD ₅₀ (oral): > 3200 mg/Kg (<i>Rattus</i>)

- Primary irritant effect on:
 - The skin: Shows irritant effect
 - The eye: hardener: Irritating to eyes
 - Respiratory system: Irritating to respiratory system. Exposure to decomposition products may cause a health hazards. Serious effects may be delayed following exposure
 - Sensitisation: Sensitisation possible through skin contact
 - Additional toxicological information:
 The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
 Irritant:
 - R36/37 – Irritant to eyes and respiratory system.
 - R43 – May cause sensitisation by skin contact

12. ECOLOGICAL INFORMATION

- Ecotoxicological effects:**

Aquatic toxicity
27813-02-1 methacrylic acid, monoester with propane-1,2-diol
LD ₅₀ /48 h: 493 mg/l (fish)
872-50-4 1-methyl-2-pyrrolidone
LC ₅₀ /96 h: > 500 mg/l (fish)
EC ₅₀ /24 h: > 1000 mg/l (<i>Daphnia magna</i>)

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EC ₅₀ /48 h: > 9000 mg/l (bacteria)
IC ₅₀ /72 h: > 500 mg/l (algae)
38668-48-3 1,1'-(p-tolylimino) dipropan-2-ol
LC ₅₀ /96 h: 17 mg/l (fish)
EC ₅₀ /48 h: 28,8 mg/l (<i>Daphnia magna</i>)
94-36-0 dibenzoyl peroxide
LC ₅₀ /96 h: 2,0 mg/l (<i>Poecilia reticulata</i>)
EC ₅₀ /48 h: 2,91 mg/l (<i>Daphnia magna</i>)
EC ₅₀ : 35 mg/l (bacteria)
84-61-7 dicyclohexyl phthalate
LC ₀ /96 h: 10000 mg/l (<i>Brachydanio rerio</i>)
EC ₀ /3 h: > 10000 mg/l (bakterie)
Additional ecological information
27813-02-1 methacrylic acid, monoester with propane-1,2-diol
Biodegradation: 94,2% after 28 days, assessment: easy biodegradable
Log P _{ow} = 0,97
872-50-4 1-methyl-2-pyrrolidone
Log P _{ow} = 0,38
BCF = 0,16
Biodegradation: easy biodegradable
38668-48-3 1,1'-(p-tolylimino)dipropan-2-ol
Log P _{ow} = 1,47
Biodegradation: easy biodegradable
84-61-7 dicyclohexyl phthalate
Biodegradation: 73% after 28 days

- Water hazard class 1 (German Regulation): Self-assessment: slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. DISPOSAL CONSIDERATIONS

- Minimize waste quantities. Must not be disposed together with household garbage. Do not allow product to reach sewage system, ground water and water course.**
- Waste disposal way:**
- Product used accordingly to its purpose does not form any wastes
- Waste disposal key (EWC):** 08 04 09 – Adhesive and jointing compound waste products that contain solvents or other hazardous substances. 16 09 03 – Peroxides.
- Uncured product dispose as a chemical waste in accordance with local regulations. Small quantities of resin and hardener may be reacted together, allowed to cure and dispose as solid waste.

14. TRANSPORT INFORMATION

14.1 Classification according to ADR:

Land transport ADR/RID:

UN number:	3269
Proper shipping name:	Polyester resin kit
Class	3
Classification code:	F1
Packing group (PG):	III
Label number:	3



Packing instruction:	P302, R001
Limited quantities (LQ):	5 L
Excepted quantities (EQ):	E 0

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Special provisions: 236, 340

Transport category: 3

Tunnel restriction code: E

Note: Based on special provision 340 excepted quantities which not exceed the quantity limits for excepted quantities applicable to UN 1866 may be transported in accordance with regulations of E 2 code.

14.2 Classification according to IMDG:

Maritime transport IMDG:

UN number: 3269

Proper shipping name: Polyester resin kit

Class: 3

Packing group (PG): III

EmS: F-E, S-D

Stowage and segregation: Category A

Label number: 3

Parking instruction: P302

Limited quantities (LQ): 5 L

Excepted quantities (EQ): E 0

Special provisions: 236, 340

Note: Based on special provision 340 excepted quantities which not exceed the quantity limits for excepted quantities applicable to UN 1866 may be transported in accordance with regulations of E 2 code

14.3 Classification according to IATA:

Air transport IATA:

UN number: 3269

Proper shipping name: Polyester resin kit

Class: 3

Packing group (PG): III

Label: Flamm. Liquid

EQ	Passenger and cargo aircraft			Cargo aircraft only		
	Ltd Qty	Pkg Inst.	Max Net Qty / Pkg	Pkg Inst.	Max Net Qty / Pkg	
Pkg Inst.						
E 0	Y 370	1 Kg	370	5 Kg	370	5 Kg

ERG code: 3 L

Special provisions: A 163

Note: Based on special provision A 163 excepted quantities which not exceed the quantity limits for excepted quantities applicable to UN 1866 may be transported in accordance with regulations of E 2 code

15. REGULATORY INFORMATION

The product has been classified and marked in accordance with EU Directives/Ordinance on Hazardous Materials.

Hazard determining components of labeling Dibenzoyl peroxide

Code letter and hazard designation of product:



Xi irritant

Risk phrases:

R36/37 – Irritating to eyes and respiratory system

R43 – May cause sensitization by skin contact

Safety phrases:

S23 – Do not breathe gas/vapour

S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S28 – After contact with skin, wash immediately with plenty of water and soap

S37/39 – Wear suitable gloves and eye/face protection

Additional labelling:

none

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16. OTHER INFORMATION

Relevant R-phrases

R2: Risk of explosion by shock, friction, fire or other sources of ignition.

R25: Toxic if swallowed.

R36/37/38: Irritating to eyes, respiratory system and skin.

R43: May cause sensitisation by skin contact.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.