

Printing date 19.04.2012 Rev. n. 2 Revision: 12.04.2012

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

- · 1.1 Product identifier
- · Trade name: PERVELOX EVO 50
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Application of the substance / the preparation

Hardening agent/ Curing agent

Catalyst

Dibenzoyl peroxide 50%

- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

RAICHEM S.r.I.

Via Gasparini, 12

42100 Reggio Emilia (Italy)

Tel. +39 0522 511182 - Fax. +39 0522 920616

- · Further information obtainable from: Raichem S.r.l. E-mail: laboratorio@raichem.it
- · 1.4 Emergency telephone number:

Raichem Srl - Tel. +39 0522 511182 (monday-friday: 8-12 a.m. e 2-6 p.m.)

CENTRI ANTIVELENI (h24 - information in italian):

Milano - Ospedale Niguarda - Tel. +39 02 66101029

Pavia - IRCCS Fondazione Maugeri - Tel. +39 0382 24444

Firenze - Azienda Ospedaliera Careggi - Tel. +39 055 4277238

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
 - · Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R36: Irritating to eyes.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

O; Oxidising

R7: May cause fire.

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

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

The Dibenzoyl Peroxide is classified as Oxidizing because it's strongly desensitized by organic liquids and/or inert solid materials and/or water.

· 2.2 Label elements

· Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals.

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

· Code letter and hazard designation of product:





Xi Irritant O Oxidising

Printing date 19.04.2012 Rev. n. 2 Revision: 12.04.2012

Trade name: PERVELOX EVO 50

(Contd. of page 1)

· Hazard-determining components of labelling:

dibenzoyl peroxide

· Risk phrases:

- 7 May cause fire.
- 36 Irritating to eyes.
- 43 May cause sensitisation by skin contact.

· Safety phrases:

- 2 Keep out of the reach of children.
- 3/7 Keep container tightly closed in a cool place.
- 24/25 Avoid contact with skin and eyes.
- 37/39 Wear suitable gloves and eye/face protection.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 56 Dispose of this material and its container to hazardous or special waste collection point.
- 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.

| ſ | · Dangerous components: | | |
|---|----------------------------|---|--------|
| Γ | CAS: 94-36-0 | dibenzoyl peroxide | 49-51% |
| ı | EINECS: 202-327-6 | 🗶 Xi R36; 🙀 Xi R43; 🌃 E R3; 🙀 O R7 | |
| | Index number: 617-008-00-0 | 📀 📀 Org. Perox. B, H241; 🕦 Eye Irrit. 2, H319; Skin Sens. 1, H317 | |
| ľ | CAS: 131-11-3 | dimethyl phthalate | 29-32% |
| | EINECS: 205-011-6 | | |

[·] Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

If skin irritation continues, consult a doctor.

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: Do not induce vomiting; call for medical help immediately.
- · 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
 - · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbonic anhydride

(Contd. on page 3)

Printing date 19.04.2012 Rev. n. 2 Revision: 12.04.2012

Trade name: PERVELOX EVO 50

(Contd. of page 2)

Benzoic acid

Benzene

Biphenyl

Phenyl benzoate

Under certain fire conditions, traces of other toxic gases cannot be excluded.

- · 5.3 Advice for firefighters
- · Protective equipment:

Do not inhale explosion gases or combustion gases.

Wear suitable fire protection equipment.

· Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.

Ensure adequate ventilation

Use respiratory protective device against the effects of fumes/dust/aerosol.

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up: Pick up mechanically.
- · 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.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Use only in well ventilated areas.

Keep away from heat and direct sunlight.

· Information about fire - and explosion protection:

Substance/product is oxidizing when dry.

Keep ignition sources away - Do not smoke.

- · 7.2 Conditions for safe storage, including any incompatibilities
 - Storage:
 - Requirements to be met by storerooms and receptacles: No special requirements.
 - Information about storage in one common storage facility:

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

Further information about storage conditions:

Keep container tightly sealed.

The product, stored in the original containers, away from sunlight, maintains its properties for 12 months from the delivery date.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- 8.1 Control parameters

| <u>•</u> | • | | |
|----------------------------|---|--|--|
| · Ingredients with li | · Ingredients with limit values that require monitoring at the workplace: | | |
| 94-36-0 dibenzoyl peroxide | | | |
| WEL (Great Britain) | Long-term value: 5 mg/m³ | | |
| PEL (USA) | Long-term value: 5 mg/m³ | | |
| REL (USA) | Long-term value: 5 mg/m³ | | |
| TLV (USA) | Long-term value: 5 mg/m³ | | |

(Contd. on page 4)

Printing date 19.04.2012 Rev. n. 2 Revision: 12.04.2012

Trade name: PERVELOX EVO 50

(Contd. of page 3)

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|---------------------|----------------------------|--------------------|--|
| ן 131-11-3 dimethyl | l-3 dimethyl phthalate | | |
| WEL (Great Britain) | Short-term value: 10 mg/m³ | | |
| | Long-term value: 5 mg/m³ | | |
| PEL (USA) | Long-term value: 5 mg/m³ | | |
| REL (USA) | Long-term value: 5 mg/m³ | | |
| TLV (USA) | Long-term value: 5 mg/m³ | | |

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 tobacco products.

The usual precautionary measures are to be adhered to when handling chemicals.

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: Not required.
- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Neoprene 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.

Penetration time of glove material

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

· Eye protection:



Tightly sealed goggles

· Body protection: Light weight protective clothing

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
 - · Appearance:

· Form: Pasty

· Colour: According to product specification

Odour: CharacteristicOdour threshold: Not determined.

· **pH-value:** Not applicable.

(Contd. on page 5)

Printing date 19.04.2012 Rev. n. 2 Revision: 12.04.2012

Trade name: PERVELOX EVO 50

(Contd. of page 4)

| | (Contd. of page 4 |
|--|---|
| · Change in condition · Melting point/Melting range: · Boiling point/Boiling range: | Undetermined. Undetermined. |
| · Flash point: | Not applicable. |
| · Flammability (solid, gaseous): | May cause fire. |
| · Ignition temperature: | 555°C |
| Decomposition temperature: | Not determined. |
| · Self-igniting: | Product is not selfigniting. |
| · Danger of explosion: | SADT 50°C The SADT (self-accelerating decomposition temperature) is an experimentally determined temperature at which the product, in its conventional packaging will decompose in a selfaccelerating reaction. |
| · Explosion limits: | |
| · Lower: | Not determined. |
| · Upper: | Not determined. |
| · Vapour pressure at 20°C: | 1 hPa |
| Density at 20°C: Relative density Vapour density Evaporation rate | 1.1 g/cm³ Not determined. Not applicable. Not applicable. |
| · Solubility in / Miscibility with · water: | Insoluble. |
| · Segregation coefficient (n-octanol/w | vater): Not determined. |
| · Viscosity: · Dynamic: · Kinematic: | Not applicable. Not applicable. |
| · Solvent content: · Organic solvents: | 0.0 % |
| Solids content: 9.2 Other information | 70.0 % No further relevant information available. |

SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

Visible decomposition with spontaneous ignition on heating.

 $SADT = 50^{\circ}C$

· 10.3 Possibility of hazardous reactions

Reacts with reducing agents.

Reacts with heavy metals.

Reacts with alkali, amines and strong acids.

- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials:

Reducing agents like amines, acids, alkali, compounds based on heavy metals (p.e. accelerators)

· 10.6 Hazardous decomposition products:

Carbon dioxide

Benzoic acid

Benzene

Printing date 19.04.2012 Rev. n. 2 Revision: 12.04.2012

Trade name: PERVELOX EVO 50

(Contd. of page 5)

Biphenyl Phenyl benzoate

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
 - · Acute toxicity:
 - · Primary irritant effect:
 - on the skin: No irritant effect.
 - · on the eye: Irritating effect.
 - · Sensitization: Sensitization 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

SECTION 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.
- · Additional ecological information:
- · General notes:

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.

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 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. Disposal must be made according to official regulations.

- · Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

| SECTION 14: Transport information | |
|---|---|
| 14.1 UN-Number ADR, IMDG, IATA | UN3108 |
| · 14.2 UN proper shipping name · ADR · IMDG, IATA | 3108 ORGANIC PEROXIDE TYPE E, SOLID ORGANIC PEROXIDE TYPE E, SOLID |
| | (O. 11 - |

(Contd. on page 7)

Printing date 19.04.2012 Rev. n. 2 Revision: 12.04.2012

Trade name: PERVELOX EVO 50

(Contd. of page 6)

· 14.3 Transport hazard class(es)

· ADR



· Class 5.2 Organic peroxides.

· Label 5.2

· IMDG, IATA



· Class 5.2 Organic peroxides.

· Label 5.2

· 14.4 Packing group

· ADR, IMDG, IATA Void

· 14.5 Environmental hazards:

· Marine pollutant: No

• 14.6 Special precautions for user Warning: Organic peroxides.

Danger code (Kemler):

· EMS Number: F-J,S-R

· 14.7 Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· Transport/Additional information:

· ADR

Limited quantities (LQ)
 Transport category
 Tunnel restriction code

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · National regulations:
- · Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · Other regulations, limitations and prohibitive regulations

The data and the informations reported in the present Material Safety Data Sheet are consistent to the Directives 1967/548/EEC, 1999/45/EC, 76/769/EEC, to the Regulation 1907/2006/EC (REACH) and 1272/2008/CE (CLP) and to what prescribed by the in force regulation in matter of classification, packaging and labelling of dangerous substances and preparations. Finally, users should check and comply with specific national and local laws in matters of hazardous activities and environmental protection (e.g.: gassy, liquid and solid emissions) not specifically covered in this document.

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

SECTION 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

H241 Heating may cause a fire or explosion.

(Contd. on page 8)

Page 8/8

Safety data sheet according to 1907/2006/EC (REACH)

Printing date 19.04.2012 Rev. n. 2 Revision: 12.04.2012

Trade name: PERVELOX EVO 50

(Contd. of page 7)

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

R3 Extreme risk of explosion by shock, friction, fire or other sources of ignition.

R36 Irritating to eyes.

R43 May cause sensitisation by skin contact.

R7 May cause fire.

· Contact: Raichem S.r.l.

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^{* *} Data compared to the previous version altered.