

Material Safety Data Sheet

according to 1907/2006/EC, Article 31

MSDS No: PER082

Issue No: 3

IMPORTANT

Read this MSDS before handling and disposing of this product and pass this information on to employees, customers and users of this product.


1. IDENTIFICATION

Product Name	Perfection Plus RestorePLUS Universal Light Cure Composite Restorative
Company Name	Perfection Plus Ltd
Company Address	6 Westwood Court, Brunel Road, Totton, Hants. SO40 3WX. UK
Company Phone No.	+44 (0) 2380 866 677

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture	
2.1.1 Classification 1999/45/EC	Xi; R37-43 Symbols:
Main hazards	Irritating to respiratory system. May cause sensitisation by skin contact.
2.1.2. Classification - EC 1272/2008	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335;

2.2. Label elements

Hazard pictograms	
Signal Word	Warning
Hazard Statement	Skin Irrit. 2: H315 - Causes skin irritation. Eye Irrit. 2: H319 - Causes serious eye irritation. STOT SE 3: H335 - May cause respiratory irritation.
Precautionary Statement: Prevention	P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary Statement: Response	P302+P352 - IF ON SKIN: Wash with plenty of water/ . P304+P340 - IF INHALED: Remove person to fresh air and keep

	<p>comfortable for breathing.</p> <p>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 - Call a POISON CENTER/doctor/ /if you feel unwell.</p> <p>P321 - Specific treatment (see on this label).</p> <p>P332+P313 - If skin irritation occurs: Get medical advice/attention.</p> <p>P337+P313 - If eye irritation persists: Get medical advice/attention.</p>
Precautionary Statement: Storage	<p>P403+P233 - Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 - Store locked up.</p>
Precautionary Statement: Disposal	P501 - Dispose of contents/container to
Further information	<p>Medical devices as defined in Directive 93/42/EEC and which are invasive or used in direct physical contact with the human body, are exempted from the provisions of regulation (EC) No 1272/2008 (CLP/GHS) usually if they are in the finished state and intended for the final user.</p>

3. COMPOSITION/INFORMATION ON PREPARATION

3.1 Mixtures

67/548/EEC / 1999/45/EC

Components Name	Index No	CAS No	EC No	REACH Registration No	Conc (%w/w)	Classification
Aluminium Oxide (Aluminium oxides)		1344-28-1	215-691-6		1 - 10%	Xi; R37
Tetraethyl silicate (Tetraethylacetate)	014-005-00-0	78-10-4	201-083-8		1 - 10%	R10 Xn; R20 Xi; R36/37
BIS GMA		1565-94-2	216-367-7		1-10%	Xi; R36/37/38
TEGDMA		109-16-0	203-652-6		1-10%	Xi; R36/37/38-43
Phosphoric acid...% (Orthophosphoric acid)	015-011-00-6	7664-38-2	231-633-2		0 - 0.5%	C; R34
Benzoyl peroxide (Dibenzoyl peroxide)	617-008-00-0	94-36-0	202-327-6		0 - 0.5%	E; R3 O; R7 Xi; R36 R43

EC 1272/2008

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Aluminium Oxide (Aluminium oxides)		1344-28-1	215-691-6		1 - 10%	STOT SE 3: H335;
Tetraethyl silicate (Tetraethylacetate)	014-005-00-0	78-10-4	201-083-8		1 - 10%	Flam. Liq. 3: H226; Acute Tox. 4: H332; Eye Irrit. 2: H319; STOT SE 3: H335;
BIS GMA		1565-94-2	216-367-7		1-10%	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335;
TEGDMA		109-16-0	203-652-6		1-10%	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335;
Benzoyl peroxide (Dibenzoyl peroxide)	617-008-00-0	94-36-0	202-327-6		0 - 0.5%	Org. Perox. B: H241; Eye Irrit. 2: H319; Skin Sens. 1: H317;

4. FIRST AID MEASURES

Inhalation	Irritation to respiratory system. Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system. Move the exposed person to fresh air. Seek medical attention.
Eye Contact	Irritating to eyes. Rinse immediately with plenty of soap and water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
Skin Contact	Irritating to skin. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
Ingestion	Ingestion may cause nausea and vomiting. DO NOT INDUCE VOMITING. Seek medical attention if irritation or symptoms persist.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media Carbon oxides.
5.2 Special hazards arising from the substance or mixture Burning produces irritating, toxic and obnoxious fumes.

5.3 Advice for firefighters

Wear suitable respiratory equipment when necessary.

6. ACCIDENTAL RELEASE MEASURES

6.3 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation of the working area. Wear suitable protective equipment. Avoid contact with skin and eyes.

6.4 Environmental precautions

Do not allow product to enter drains. Prevent further spillage if safe.

6.5 Methods and materials for containment and cleaning up.

Sweep up. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Adopt best Manual Handling considerations when handling, carrying and dispensing. Wear suitable protective clothing.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in correctly labelled containers.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

8.1.1 Exposure Limit Values

Aluminium Oxide (Aluminium oxides)	WEL 8-hr limit ppm: - WEL 15 min limit ppm: - WEL 8-hr limit mg/m ³ total inhalable dust: 10 WEL 8-hr limit mg/m ³ total respirable dust: 4	WEL 8-hr limit mg/m ³ : - WEL 15 min limit mg/m ³ : - WEL 15 min limit mg/m ³ total inhalable dust: - WEL 15 min limit mg/m ³ total respirable dust: -
Benzoyl peroxide (Dibenzoyl peroxide)	WEL 8-hr limit ppm: - WEL 15 min limit ppm: - WEL 8-hr limit mg/m ³ total inhalable dust: - WEL 8-hr limit mg/m ³ total respirable dust: -	WEL 8-hr limit mg/m ³ : 5 WEL 15 min limit mg/m ³ : - WEL 15 min limit mg/m ³ total inhalable dust: - WEL 15 min limit mg/m ³ total respirable dust: -
Phosphoric acid...% (Orthophosphoric acid)	WEL 8-hr limit ppm: - WEL 15 min limit ppm: - WEL 8-hr limit mg/m ³ total inhalable dust: - WEL 8-hr limit mg/m ³ total	WEL 8-hr limit mg/m ³ : 1 WEL 15 min limit mg/m ³ : 2 WEL 15 min limit mg/m ³ total inhalable dust: - WEL 15 min limit mg/m ³ total

	respirable dust: -	respirable dust: -
Tetraethyl silicate (Tetraethylacetate)	DIR: - 8hTWA mg/m3: 120 STEL mg/m3: 300	8hTWA ppm: 50 STEL ppm: 100 NOT: Skin

8.2 Exposure controls



8.2.1 Appropriate engineering controls

Ensure adequate ventilation of the working area.

8.2.2 Individual Protection Measures

Wear chemical protective clothing

Eye / face protection – in case of splashing wear approved safety goggles

Skin / Hand protection – chemical resistant gloves

Respiratory protection – wear suitable respiratory equipment when necessary.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State	Paste
Odour	Slight
Odour Threshold	No data available
pH	No data available
Melting Point	No data available
Freezing Point	No data available
Initial boiling Point	No data available
Flash Point (°C)	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Fat Solubility	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available
Solubility	No data available

9.2. Other information

Conductivity	No data available
Surface tension	No data available
Gas group	No data available
Benzene Content	No data available
Lead content	No data available
VOC (Volatile organic compounds)	No data available

10 STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Strong acids and strong bases.

10.4 Conditions to avoid

Heat. Light.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products

No data is available on this product.

11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity	May cause sensitisation by skin contact.
Serious eye damage/irritation	Causes eye irritation.
Respiratory or skin sensitisation	CAUSES RESPIRATORY TRACT IRRITATION.

11.2 Toxicological Information

Phosphoric acid...%	Oral Rat LD50: 1530mg/kg	
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Further information

No data is available on this product.

12 ECOLOGICAL INFORMATION

12.1. Toxicity

Benzoyl peroxide	Daphnia EC50/48h: 0.1100 mg/l Fish LC50/96h: 0.0602 mg/l	Algae IC50/72h: 0.0711 mg/l
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12.2. Persistence and degradability	No data is available on this product.
12.3. Bioaccumulative potential	
Partition coefficient	RestorePLUS No data available
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	No data available.
Further information	No data is available on this product.

13 DISPOSAL CONSIDERATIONS

Dispose of in compliance with all local and national regulations.
For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.
Do NOT reuse empty containers.

14 TRANSPORTATION INFORMATION

14.1. UN number	The product is not classified as dangerous for carriage.
14.2. UN proper shipping name	The product is not classified as dangerous for carriage.
14.3. Transport hazard class(es)	The product is not classified as dangerous for carriage.
14.4. Packing group	The product is not classified as dangerous for carriage.
14.5. Environmental hazards	The product is not classified as dangerous for carriage.
14.6. Special precautions for user	The product is not classified as dangerous for carriage.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	The product is not classified as dangerous for carriage.
Further information	The product is not classified as dangerous for carriage.

15 REGULATORY INFORMATION

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

No data is available on this product.

16 OTHER INFORMATION

Other information	
Revision	<p>This document differs from the previous version in the following areas:</p> <ul style="list-style-type: none"> 2 - 2.1. Classification of the substance or mixture. 2 - 2.1.2. Classification - EC 1272/2008. 2 - Hazard pictograms. 2 - Signal Word. 2 - Precautionary Statement: Prevention. 2 - Precautionary Statement: Response. 2 - Precautionary Statement: Storage. 2 - Precautionary Statement: Disposal. 2 - Further information. 4 - Inhalation. 4 - Eye contact. 4 - Skin contact. 4 - Ingestion. 6 - 6.1. Personal precautions, protective equipment and emergency procedures. 7 - 7.1. Precautions for safe handling. 8 - Respiratory protection. 8 - Skin protection - Handprotection. 9 - 9.1. Information on basic physical and chemical properties (Colour). 9 - 9.1. Information on basic physical and chemical properties (PH). 9 - 9.1. Information on basic physical and chemical properties (Initial boiling point). 9 - 9.1. Information on basic physical and chemical properties (Melting point). 9 - 9.1. Information on basic physical and chemical properties (Flash point). 9 - 9.1. Information on basic physical and chemical properties (Flammability (solid, gas)). 9 - 9.1. Information on basic physical and chemical properties (Autoignition temperature). 9 - 9.1. Information on basic physical and chemical properties (Explosive properties). 9 - 9.1. Information on basic physical and chemical properties (Oxidising properties). 9 - 9.1. Information on basic physical and chemical properties (Vapour pressure). 9 - 9.1. Information on basic physical and chemical properties (Relative density). 9 - 9.1. Information on basic physical and chemical properties (Viscosity). 9 - 9.1. Information on basic physical and chemical properties (Vapour density). 9 - 9.1. Information on basic physical and chemical properties (Evaporation rate). 9 - 9.1. Information on basic physical and chemical properties (Freezing Point).

	<p>9 - 9.1. Information on basic physical and chemical properties (Fat Solubility).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Solubility).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Odour threshold).</p> <p>9 - 9.2. Other information (Conductivity).</p> <p>9 - 9.2. Other information (Partition coefficient).</p> <p>9 - 9.2. Other information (Gas group).</p> <p>9 - 9.2. Other information (Surface tension).</p> <p>9 - 9.2. Other information (Benzene Content).</p> <p>9 - 9.2. Other information (Product Subcategory).</p> <p>9 - 9.2. Other information (Lead content).</p> <p>10 - 10.4. Conditions to avoid.</p> <p>10 - 10.3. Possibility of hazardous reactions.</p> <p>10 - 10.6. Hazardous decomposition products.</p> <p>10 - 10.1. Reactivity.</p> <p>10 - 10.5. Incompatible materials.</p> <p>11 - Respiratory or skin sensitisation.</p> <p>11 - Serious eye damage/irritation.</p> <p>12 - 12.1. Toxicity.</p> <p>12 - 12.4. Mobility in soil.</p> <p>12 - 12.2. Persistence and degradability.</p> <p>12 - 12.5. Results of PBT and vPvB assessment.</p> <p>15 - Labelling.</p> <p>15 - Symbols.</p> <p>15 - Risk phrases.</p> <p>15 - Safety phrases.</p> <p>15 - 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.</p> <p>16 - Maximum content of VOC.</p>
Text of risk phrases in Section 3	<p>R3 - Extreme risk of explosion by shock, friction, fire or other sources of ignition.</p> <p>R7 - May cause fire.</p> <p>R10 - Flammable</p> <p>R20 - Harmful by inhalation.</p> <p>R34 - Causes burns.</p> <p>R36/37/38 - Irritating to eyes, respiratory system and skin.</p> <p>R36/37 - Irritating to eyes and respiratory system.</p> <p>R36 - Irritating to eyes.</p> <p>R37 - Irritating to respiratory system.</p> <p>R43 - May cause sensitisation by skin contact.</p>
Text of Hazard Statements in Section 3	<p>STOT SE 3: H335 - May cause respiratory irritation.</p> <p>Flam. Liq. 3: H226 - Flammable liquid and vapour.</p> <p>Eye Irrit. 2: H319 - Causes serious eye irritation.</p> <p>Acute Tox. 4: H332 - Harmful if inhaled.</p> <p>Skin Irrit. 2: H315 - Causes skin irritation.</p> <p>Skin Sens. 1: H317 - May cause an allergic skin reaction.</p>
Further information	<p>The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This</p>

	information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.
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**SUPERSEDES
ISSUE: 2**

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This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

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