



3M Health Care Ltd Goods Receiving  
3M House 1 Morley Street  
LOUGHBOROUGH Leicestershire  
LE11 1EP

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Material Safety Data Sheet

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SUPERSEDES DATE        31/08/10 PRINTED        : 09/09/10 PAGE        1 OF    12

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

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1.1 Identification of the substance or preparation  
5540 3M(tm) ESPE(tm) VALUX PLUS RESTORATIVE

3M Product identification numbers

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|                |  |  |                |  |  |                |  |
|----------------|--|--|----------------|--|--|----------------|--|
| 70-2010-1386-2 |  |  | 70-2010-1409-2 |  |  | 70-2010-1410-0 |  |
| 70-2010-1411-8 |  |  | 70-2010-1412-6 |  |  | 70-2010-1413-4 |  |
| 70-2010-1437-3 |  |  | 70-2010-2453-9 |  |  |                |  |

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1.2 Use of substance/preparation  
Dental product

1.3 Company/undertaking identification

Address:                    3M United Kingdom PLC, 3M Centre, Cain Road,  
                             Bracknell, Berkshire, RG12 8HT.  
E Mail:                    tox.uk@mmm.com  
Website:                   www.3M.com/uk

1.4 Emergency telephone number  
+44 (0)1344 858 000

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2. HAZARDS IDENTIFICATION

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MSDS ID 05-7367-5 RELEASE DATE: 07/09/10 VERSION : 002.00  
 SUPERSEDES DATE 31/08/10 PRINTED : 09/09/10 PAGE 2 OF 12

**5540 3M(tm) ESPE(tm) VALUX PLUS RESTORATIVE**

R43 | May cause sensitisation by skin contact.

Other hazards

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredient  | CAS Nbr     | EU<br>Inventory     | % by<br>weight | Classification |
|---|-------------|---------------------|----------------|----------------|
| Ceramic materials and wares, chemicals, hydrolysis products with 3-(trimethoxysilyl)propyl methacrylate | 444758-98-9 |                     | 80 - 90        |                |
| 2,2'-Ethylenedioxydiethyl dimethacrylate  | 109-16-0    | EINECS<br>203-652-6 | 5 - 10         | R43 (3M)       |
| 1-Methylethylidenebis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate                      | 1565-94-2   | EINECS<br>216-367-7 | 5 - 10         | R43 (3M)       |
| 2-(2H-Benzotriazol-1-yl)-p-cresol   | 2440-22-4   | EINECS<br>219-470-5 | < 1            | R43 (Vendor)   |

Please see section 16 for the full text of any risk phrases referred to under headings 2 and 3 of this Safety Data Sheet.

4. FIRST AID MEASURES

The following first aid recommendations are based on an assumption

MSDS ID 05-7367-5 RELEASE DATE: 07/09/10 VERSION : 002.00  
SUPERSEDES DATE 31/08/10 PRINTED : 09/09/10 PAGE 3 OF 12

**5540 3M(tm) ESPE(tm) VALUX PLUS RESTORATIVE**

followed.

**Inhalation**

Remove person to fresh air. If signs/symptoms develop, get medical attention.

**Skin contact**

Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**Eye contact**

Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

**Ingestion**

Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

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**5. FIRE FIGHTING MEASURES**  
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**Suitable extinguishing media**

Ordinary combustible material. Use fire extinguishers with class A extinguishing agents (e.g. water, foam).

**Unsuitable extinguishing media**

**Special exposure hazards**

No unusual fire or explosion hazards are anticipated.

**Special instructions for firefighters**

Water may be used to blanket the fire. Wear full protective equipment and a self-contained breathing apparatus.

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**6. ACCIDENTAL RELEASE MEASURES**  
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**Personal precautions**

MSDS ID 05-7367-5 RELEASE DATE: 07/09/10 VERSION : 002.00  
SUPERSEDES DATE 31/08/10 PRINTED : 09/09/10 PAGE 4 OF 12

**5540 3M(tm) ESPE(tm) VALUX PLUS RESTORATIVE**

spill should be cleaned up by qualified personnel. Ventilate the area with fresh air.

**Environmental procedures**

Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities.

**Methods for cleaning up**

Please observe precautions from other sections of this Safety Data Sheet. Collect as much of the spilled material as possible. Clean up residue.

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**7. HANDLING & STORAGE**  
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**7.1 Handling**

Avoid eye contact. Avoid skin contact. A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. Wash hands after handling and before eating.

**7.2 Storage**

Store in a cool, dry place.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**  
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**8.1 Exposure limit values**

No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.  
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**8.2.1 Occupational exposure controls**  
Not applicable.

**Respiratory protection**

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

MSDS ID 05-7367-5 RELEASE DATE: 07/09/10 VERSION : 002.00  
SUPERSEDES DATE 31/08/10 PRINTED : 09/09/10 PAGE 5 OF 12

**5540 3M(tm) ESPE(tm) VALUX PLUS RESTORATIVE**

Hand protection

Not determined

Eye/face protection

The following eye protection(s) are recommended: Safety glasses with side shields.

Skin protection  
Avoid skin contact.

Ingestion

Do not ingest. Wash hands after handling and before eating.

8.2.2 Environmental exposure controls  
No data available.

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**9. PHYSICAL/CHEMICAL PROPERTIES**  
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**9.1 General information**

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|                         |                                     |
|-------------------------|-------------------------------------|
| Physical state          | Solid.                              |
| Specific Physical Form: | Paste                               |
| Appearance/Odour        | Slight acrylate odor, Tooth colored |

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**9.2 Important health safety and environmental information**

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|                             |                 |
|-----------------------------|-----------------|
| pH                          | Not applicable. |
| Boiling point/boiling range | Not applicable. |
| Melting point               | Not applicable. |
| Flammability (solid, gas)   | Not available.  |
| Explosive properties        | Not determined. |
| Oxidising properties        | Not determined. |

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MSDS ID 05-7367-5 RELEASE DATE: 07/09/10 VERSION : 002.00  
SUPERSEDES DATE 31/08/10 PRINTED : 09/09/10 PAGE 6 OF 12

**5540 3M(tm) ESPE(tm) VALUX PLUS RESTORATIVE**

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Flammable limits - LEL | Not applicable.  
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Flammable limits - UEL | Not applicable.  
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Vapour pressure | Not applicable.  
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Relative density | 2.1 [Ref Std:WATER=1]  
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Water solubility | Negligible  
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Partition coefficient:  
n-octanol/water | No data available.  
|

Evaporation rate | No data available.  
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Vapour density | Not applicable.  
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Density | 2.1 g/cm3  
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9.3 Other information

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|                                  |                        |
|----------------------------------|------------------------|
| Volatile organic compounds (VOC) | No data available.<br> |
|----------------------------------|------------------------|

Percent volatile | Negligible  
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VOC less H2O & exempt solvents | No data available.  
|  
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**10. STABILITY & REACTIVITY**  
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Stable. Hazardous polymerisation will not occur.

10.1 Conditions to avoid  
None known.

10.2 Materials to avoid  
None known.

MSDS ID 05-7367-5 RELEASE DATE: 07/09/10 VERSION : 002.00  
 SUPERSEDES DATE 31/08/10 PRINTED : 09/09/10 PAGE 7 OF 12

# **5540 3M(tm) ESPE(tm) VALUX PLUS RESTORATIVE**

## 10.3 Hazardous decomposition products

| Substance        | Condition          |
|------------------|--------------------|
| Carbon monoxide. | During combustion. |
| Carbon dioxide.  | During combustion. |

## 11. TOXICOLOGICAL INFORMATION

### Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

### Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

### Eye contact

Mild eye irritation: Signs/symptoms may include redness, pain and tearing.

### Skin contact

Mild skin irritation: Signs/symptoms may include localised redness, swelling, and itching. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

### Sensitisation

| Ingredient   | CAS Nbr   | Class description     | Regulation    |
|--|-----------|-----------------------|---------------|
| 2-(2H-Benzotriazol-2-yl)-p-cresol  | 2440-22-4 | Sensitiser skin (R43) | Vendor        |
| 1-Methylethylidene)b is[4,1-phenyleneoxy( 2-hydroxy-3,1-propan ediy1)] bismethacrylate | 1565-94-2 | Sensitiser skin (R43) | 3M classified |
| 2,2'-Ethylenedioxydi ethyl   | 109-16-0  | Sensitiser skin (R43) | 3M classified |

MSDS ID 05-7367-5 RELEASE DATE: 07/09/10 VERSION : 002.00  
SUPERSEDES DATE 31/08/10 PRINTED : 09/09/10 PAGE 8 OF 12

5540 3M(tm) ESPE(tm) VALUX PLUS RESTORATIVE

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12. ECOLOGICAL INFORMATION  
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A conservative assessment indicates this product presents a low environmental risk. Components released to the environment through use and disposal are expected to have minimal environmental impact.

12.1 Ecotoxicity

No product test data available.  
No component test data available.

12.2 Mobility  
Please contact 3M for more details.

12.3 Persistence and degradability  
No test data available.

12.4 Bioaccumulative potential  
No test data available.

12.5 Results of PBT assessment  
No data available at this time, contact 3M for more details.



MSDS ID 05-7367-5 RELEASE DATE: 07/09/10 VERSION : 002.00  
SUPERSEDES DATE 31/08/10 PRINTED : 09/09/10 PAGE 9 OF 12

**5540 3M(tm) ESPE(tm) VALUX PLUS RESTORATIVE**

No information available.

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**13. DISPOSAL CONSIDERATIONS**  
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Waste disposal method: Dispose of waste product in a sanitary landfill. Incinerate in an industrial or commercial facility in the presence of a combustible material. As a disposal alternative: Dispose of waste product in a facility permitted to accept chemical waste. As a disposal alternative, incinerate in an industrial or commercial facility.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

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|         |                                |
|---------|--------------------------------|
| 180110* | Amalgam waste from dental care |
|---------|--------------------------------|

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Since regulations vary, consult applicable regulations or authorities before disposal.

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**14. TRANSPORTATION INFORMATION**  
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Please refer to the end of this document for transportation information.

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**15. REGULATORY INFORMATION**  
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Symbols

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|    |           |
|----|-----------|
| Xi | Irritant. |
|----|-----------|

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MSDS ID 05-7367-5 RELEASE DATE: 07/09/10 VERSION : 002.00  
SUPERSEDES DATE 31/08/10 PRINTED : 09/09/10 PAGE 10 OF 12

**5540 3M(tm) ESPE(tm) VALUX PLUS RESTORATIVE**

1-Methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]  
bismethacrylate; 2,2'-Ethylenedioxydiethyl dimethacrylate

Risk phrases

R43 | May cause sensitisation by skin contact.

Safety phrases

S24 | Avoid contact with skin.

S37 | Wear suitable gloves.

Special provisions concerning the labelling of certain substances

Notes on labelling

16. OTHER INFORMATION

List of relevant R-phrases

R43 | May cause sensitisation by skin contact.

Restrictions on use

For use by dental professionals only.

Global inventory status

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information.

Revision information:

Revision Changes:

Section 3: Composition/ Information of ingredients table was modified.



MSDS ID 05-7367-5 RELEASE DATE: 07/09/10 VERSION : 002.00  
SUPERSEDES DATE 31/08/10 PRINTED : 09/09/10 PAGE 11 OF 12

**5540 3M(tm) ESPE(tm) VALUX PLUS RESTORATIVE**

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MSDS ID 05-7367-5 RELEASE DATE: 07/09/10 VERSION : 002.00  
SUPERSEDES DATE 31/08/10 PRINTED : 09/09/10 PAGE 12 OF 12

**5540 3M(tm) ESPE(tm) VALUX PLUS RESTORATIVE**

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ANNEX: Transport information as per paragraph 14 of the MSDS