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SAFETY DATA SHEET

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Document id : 16-2749-6 Issue date : 01/10/2007
 Version : 4.00 Supersedes date : 02/03/2006

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

- 1.1 Tradename:
 3M Ketac-Cem Maxicap Liquid
- 1.2 Intended Use of Product:
 Dental cement
- 1.3 3M Product ID:
 LL-ESPE-5601-6
- 1.4 Contact Address:
 3M UK PLC 3M Ireland
 3M Centre, Cain Road, 3M House, Adelphi Centre,
 Bracknell, Berkshire, RG12 8HT Dun Laoghaire, Co. Dublin
- 1.5 E-mail Address and Emergency Contact Number:
 tox.uk@mmm.com
 +44 (0)1344 858 000

2 HAZARDS IDENTIFICATION

Risk Phrases:
 R36 Irritating to eyes.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name and classification	CAS number	Percentage
Water	7732-18-5	60 - 70
EU Number: EINECS 231-791-2		
Acrylic acid-maleic acid copolymer	29132-58-9	30 - 40
EU Classification: EU-3M Classified(Xi; R:36)		
Tartaric acid	87-69-4	5 - 10
EU Number: EINECS 201-766-0		
Vendor Classification: Xi; R:36		

4 FIRST-AID MEASURES

- 4.1 Eye Contact:
 Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.
- 4.2 Skin Contact:
 Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and shoes before reuse.
- 4.3 Inhalation:
 Remove person to fresh air. If signs/symptoms develop, get medical attention.

- 4.4 Ingestion:
Do not induce vomiting. Get immediate medical attention. Give victim two glasses of water. Never give anything by mouth to an unconscious person.

5 FIRE-FIGHTING MEASURES

- 5.1 Suitable Extinguishing Media:
Use fire extinguishers with class B extinguishing agents (e.g. dry chemical, carbon dioxide).
- 5.2 Unsuitable Extinguishing Media:
Not specified.
- 5.3 Exposure Hazards:
No unusual fire or explosion hazards are anticipated.
- 5.4 Combustion Products from Fire:
Not determined.
- 5.5 Fire-Fighting Procedures:
Wear full protective equipment and a self-contained breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

- 6.1 Personal Precautions:
Please observe precautions from other sections of this MSDS.
- 6.2 Methods for Cleaning up:
Place in a metal container approved for use in transportation by appropriate authorities. The container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene.
Seal the container.
Contain spill.
Cover with absorbent material.
Collect as much of the spilled material as possible.
Clean up residue.
Collect the resulting residue containing solution.
Cover, but do not seal for 48 hours.
Dispose of collected material as soon as possible.

7 HANDLING AND STORAGE

- 7.1 Precautions for Safe Handling:
Not specified.
- 7.2 Precautions for Safe Storage:
Not specified.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Recommended Ventilation:
Not applicable.
- 8.2 Exposure Limits:
None of the substances in the section 3 ingredient list are listed in the EH40 Exposure Limit Inventory.
- 8.3 Exposure Controls:
- 8.3.1 Eye Protection:

Avoid eye contact.

The following should be worn alone or in combination, as appropriate, to prevent eye contact: Safety glasses with side shields.

8.3.2 Hand Protection:
Not specified.

8.3.3 Skin Protection:
Avoid prolonged or repeated skin contact. Gloves not normally required.

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

8.3.5 Ingestion:
Do not ingest.

9 PHYSICAL AND CHEMICAL PROPERTIES

- Appearance and Odour:	Colourless liquid with a slightly acidic odour.
- pH:	1.6 - 2.1
- Boiling point/boiling range:	> 100.0 °C
- Melting point/melting range:	Not applicable
- Flash point:	Not applicable
- Autoflammability:	Not determined
- Flammable Limits - LEL:	Not applicable
- Flammable Limits - UEL:	Not applicable
- Vapour pressure:	Not determined
- Water solubility:	Complete @ 23 C
- Specific gravity:	>= 1 (Water=1)
- Vapour density:	Not determined
- Volatile organic compounds:	Not determined
- Evaporation rate:	Not determined
- Viscosity:	0.5 - 0.6
- Percent Volatile:	Not determined

10 STABILITY AND REACTIVITY

10.1 Stability and Reactivity:
Stable. Hazardous polymerisation will not occur.

10.2 Conditions to Avoid:
None known.

10.3 Materials to Avoid:
None known.

- 10.4 Hazardous Decomposition:
Carbon monoxide - During Combustion.
Carbon dioxide - During Combustion.

11 TOXICOLOGICAL INFORMATION

- 11.1 Effects from Eye Contact:
- Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
- 11.2 Effects from Skin Contact:
- Moderate Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness.
- 11.3 Effects from Inhalation:
Prolonged or repeated exposure may cause:
- Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.
- 11.4 Effects from Ingestion:
- Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.
- 11.5 Other Effects and Information:
Not specified.

12 ECOLOGICAL INFORMATION

- 12.1 Environmental Data:
Not determined.
- 12.2 Mobility in Soil and water:
Not determined.
- 12.3 Persistence/Biodegradability:
Not determined.
- 12.4 Bioaccumulation Potential:
Not determined.
- 12.5 Ecotoxicity Data:
Not determined.
- 12.6 Ecofate Data:
Not determined.
- 12.7 Special statements for 2001/58/EC:
A conservative assessment indicates this product presents a low environmental risk because use and disposal are unlikely to result in the significant release of components to the environment.

13 DISPOSAL CONSIDERATIONS

- 13.1 Product as sold:
Incinerate in a permitted hazardous waste incinerator in the presence of a combustible material. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.
- 13.2 Product in Use:
Not determined.
- 13.3 Product after Use:
Not determined.

13.4 Product Packaging:
Not determined.

13.5 Potential for Recycling:
Not determined.

13.6 Special Instructions:
since regulations vary, consult applicable regulations or
authorities before disposal.

14 TRANSPORT INFORMATION

- UN number: Not restricted for
transportation.

15 REGULATORY INFORMATION

Label Version Number:
03.00

Symbol(s):
Xi Irritant.

Risk Phrases:
R36 Irritating to eyes.

Safety Phrases:
S24/25 Avoid contact with the skin and eyes.
S26 In case of contact with eyes, rinse immediately with
plenty of water and seek medical advice.
S28B After contact with skin, wash immediately with plenty
of water.
3M Please read the package insert for additional
precautionary warnings.

Disclosable Ingredients:
Polyethylene polycarbonic acid.

Product Certifications:
EINECS.

16 OTHER INFORMATION

16.1 Complete list of risk phrases:
R36 Irritating to eyes.

16.2 Limitations on Use of Product:
For use only by dental professionals

16.3 Reissue date/Reason for reissue:
Complete MSDS revision in accordance with EU directive
2001/58/EC.

16.4 Regulatory Information:
The following UK Regulations as amended may affect the product as
supplied:
The Chemicals (Hazard Information and Packaging for supply)
Regulations, as amended;
The Carriage of Dangerous Goods (Classification, Packaging and
Labelling) and use of Transportable Pressure Receptacles
Regulations 1996, as amended;
The Control of Substances Hazardous to Health Regulations 1999 as
amended;

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The Special Waste Regulations 1996, as amended;
The Environmental Protection Act, 1990, as amended;
The Health and Safety at work Act, 1974, as amended.

The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

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SAFETY DATA SHEET
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Document id : 16-2748-8 Issue date : 01/10/2007
Version : 3.00 Supersedes date : 02/03/2006

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

- 1.1 Tradename:
3M Ketac-Cem Maxicap Powder
- 1.2 Intended Use of Product:
Dental cement
- 1.3 3M Product ID:
PP-ESPE-5601-6
- 1.4 Contact Address:
3M UK PLC
3M Centre, Cain Road,
Bracknell, Berkshire, RG12 8HT
3M Ireland
3M House, Adelphi Centre,
Dun Laoghaire, Co. Dublin
- 1.5 E-mail Address and Emergency Contact Number:
tox.uk@mmm.com
+44 (0)1344 858 000

2 HAZARDS IDENTIFICATION

Risk Phrases:
None.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name and classification	CAS number	Percentage
Glass, oxide, chemicals EU Number: EINECS 266-046-0	65997-17-3	> 99

4 FIRST-AID MEASURES

- 4.1 Eye Contact:
Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

- 4.2 Skin Contact:
Wash affected area with soap and water. If signs/symptoms develop, get medical attention.
- 4.3 Inhalation:
Remove person to fresh air. If signs/symptoms develop, get medical attention.
- 4.4 Ingestion:
Do not induce vomiting. Get immediate medical attention. Give victim two glasses of water. Never give anything by mouth to an unconscious person.

5 FIRE-FIGHTING MEASURES

- 5.1 Suitable Extinguishing Media:
Use fire extinguishers with class B extinguishing agents (e.g. dry chemical, carbon dioxide).
- 5.2 Unsuitable Extinguishing Media:
Not specified.
- 5.3 Exposure Hazards:
Not determined.
- 5.4 Combustion Products from Fire:
Not determined.
- 5.5 Fire-Fighting Procedures:
Wear full protective equipment and a self-contained breathing apparatus.
- 5.6 Special Instructions:
Not applicable.

6 ACCIDENTAL RELEASE MEASURES

- 6.1 Personal Precautions:
Please observe precautions from other sections of this MSDS.
- 6.2 Methods for Cleaning up:
Collect as much of the spilled material as possible.
Clean up residue.
Collect the resulting residue containing solution.
Place in a closed container approved for transportation by appropriate authorities.

7 HANDLING AND STORAGE

- 7.1 Precautions for Safe Handling:
Not specified.
- 7.2 Precautions for Safe Storage:
Not specified.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Recommended Ventilation:
Not applicable.
- 8.2 Exposure Limits:
None of the substances in the section 3 ingredient list are listed in the EH40 Exposure Limit Inventory.

8.3 Exposure Controls:

8.3.1 Eye Protection:

Avoid eye contact.

The following should be worn alone or in combination, as appropriate, to prevent eye contact: Safety glasses with side shields.

8.3.2 Hand Protection:

Not specified.

8.3.3 Skin Protection:

Avoid prolonged or repeated skin contact. Gloves not normally required.

8.3.4 Respiratory Protection:

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

8.3.5 Ingestion:

Do not ingest.

9 PHYSICAL AND CHEMICAL PROPERTIES

- | | |
|--------------------------------|---|
| - Appearance and Odour: | Light pink odourless fine powder (less than 10um in diameter)). |
| - pH: | Not applicable |
| - Boiling point/boiling range: | Not applicable |
| - Melting point/melting range: | Not determined |
| - Flash point: | Not applicable |
| - Autoflammability: | Not applicable |
| - Flammable Limits - LEL: | Not applicable |
| - Flammable Limits - UEL: | Not applicable |
| - Vapour pressure: | Not applicable |
| - Water solubility: | Nil |
| - Specific gravity: | >= 1 (Water=1) |
| - Vapour density: | Not applicable |
| - Volatile organic compounds: | Not determined |
| - Evaporation rate: | Not applicable |
| - Viscosity: | Not applicable |
| - Percent volatile: | Not determined |

10 STABILITY AND REACTIVITY

10.1 Stability and Reactivity:

Stable. Hazardous polymerisation will not occur.

- 10.2 Conditions to Avoid:
None known.
- 10.3 Materials to Avoid:
None known.
- 10.4 Hazardous Decomposition:
None known - During Combustion.

11 TOXICOLOGICAL INFORMATION

- 11.1 Effects from Eye Contact:
 - Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.
- 11.2 Effects from Skin Contact:
Contact with the skin during product use is not expected to result in significant irritation.
- 11.3 Effects from Inhalation:
 - Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.
- 11.4 Effects from Ingestion:
 - Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.
- 11.5 Other Effects and Information:
Not specified.

12 ECOLOGICAL INFORMATION

- 12.1 Environmental Data:
Not determined.
- 12.2 Mobility in Soil and Water:
Not determined.
- 12.3 Persistence/Biodegradability:
Not determined.
- 12.4 Bioaccumulation Potential:
Not determined.
- 12.5 Ecotoxicity Data:
Not determined.
- 12.6 Ecofate Data:
Not determined.
- 12.7 Special statements for 2001/58/EC:
A conservative assessment indicates this product presents a low environmental risk because use and disposal are unlikely to result in the significant release of components to the environment.

13 DISPOSAL CONSIDERATIONS

- 13.1 Product as Sold:
Dispose of waste product in a facility permitted to accept chemical waste. For quantities <50kg (100 lbs.): dispose of waste product in a sanitary landfill.
- 13.2 Product in Use:

Not determined.

13.3 Product after Use:
Not determined.

13.4 Product Packaging:
Not determined.

13.5 Potential for Recycling:
Not determined.

13.6 Special Instructions:
Since regulations vary, consult applicable regulations or
authorities before disposal.

14 TRANSPORT INFORMATION

- UN number: Not restricted for
transportation.

15 REGULATORY INFORMATION

Label Version Number:
02.00

Symbol(s):
None.

Risk Phrases:
None.

Safety Phrases:
S25 Avoid contact with eyes.
S26 In case of contact with eyes, rinse immediately with
plenty of water and seek medical advice.
3M Please read the package insert for additional
precautionary warnings.

Disclosable Ingredients:
No ingredients required on label.

Product Certifications:
EINECS.

16 OTHER INFORMATION

16.1 Complete list of risk phrases:
None.

16.2 Limitations on Use of Product:
For use only by dental professionals.

16.3 Reissue date/Reason for reissue:
Updated sections 3,7,9,15.

16.4 Regulatory Information:
The following UK Regulations as amended may affect the product as
supplied:
The Chemicals (Hazard Information and Packaging for supply)
Regulations, as amended;
The Carriage of Dangerous Goods (Classification, Packaging and
Labelling) and use of Transportable Pressure Receptacles
Regulations 1996, as amended;

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The Control of Substances Hazardous to Health Regulations 1999 as amended;

The Special Waste Regulations 1996, as amended;

The Environmental Protection Act, 1990, as amended;

The Health and Safety at work Act, 1974, as amended.

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