



## Safety Information Sheet for Medical Devices

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A safety data sheet is not required for this Product. This Safety Information Sheet has been created on a voluntary basis.

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

#### 1.1. Product identifier

3M™ Ketac™ Cem radiopaque Liquid (37220, 37221)

#### Product Identification Numbers

70-2011-0045-3 70-2011-0341-6

7000054679 7000129025

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### Identified uses

Medical device; refer to Instructions for Use

##### Restrictions on Use

For use only by dental professionals.

#### 1.3 Details of the supplier of the safety information sheet for medical devices

**Address:** 3M Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.

**Telephone:** +353 1 280 3555

**E Mail:** tox.uk@mmm.com

**Website:** www.3M.com

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

This product is a medical device as defined in Directive 93/42/EEC (MDD) respectively Regulation (EU) 2017/745 (MDR), which is invasive or used in direct physical contact with the human body, and therefore is exempt from the requirements of classification and labelling according to Regulation (EC) No. 1272/2008 (CLP; Article 1, paragraph 5). Although not required, the classification and label information, as applicable, is provided below.

**CLASSIFICATION:**

This material is not classified as hazardous according to Regulation (EC) No. 1272/2008, as amended, on classification, labelling, and packaging of substances and mixtures.

**2.2. Label elements****CLP REGULATION (EC) No 1272/2008**

Not applicable

**Notes on labelling**

Skin and Eye irritation does not apply based on test data.

**2.3. Other hazards**

For information on hazards and safe use, please consider the corresponding sections of this document.

**SECTION 3: Composition/information on ingredients**

<b>Ingredient</b>	<b>CAS Nbr</b>	<b>EC No.</b>	<b>% by Wt</b>	<b>Classification</b>
Water	7732-18-5	231-791-2	80 - 90	Substance not classified as hazardous
Tartaric acid (REACH Reg. No.:01-2119537204-47)	87-69-4	201-766-0	< 20	Eye Dam. 1, H318

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SIS

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation**

Remove person to fresh air. If you feel unwell, get medical attention.

**Skin contact**

Wash with soap and water. If signs/symptoms develop, get medical attention.

**Eye contact**

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

**If swallowed**

Rinse mouth. If you feel unwell, get medical attention.

**SECTION 5: Fire-fighting measures****5.1. Extinguishing media**

Use a fire fighting agent suitable for the surrounding fire.

**5.2. Special hazards arising from the substance or mixture**

None inherent in this product.

**Hazardous Decomposition or By-Products**

**Substance**

Carbon monoxide  
Carbon dioxide.

**Condition**

During combustion.  
During combustion.

**5.3. Advice for fire-fighters**

No special protective actions for fire-fighters are anticipated.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Observe precautions from other sections.

**6.2. Environmental precautions**

Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible.

## SECTION 7: Handling and storage

Refer to Instructions for Use (IFU) for more information.

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**Occupational exposure limits**

No occupational exposure limit values exist for any of the components listed in Section 3 of this SIS.

**Biological limit values**

No biological limit values exist for any of the components listed in Section 3 of this safety information sheet.

**8.2. Exposure controls**

**8.2.1. Engineering controls**

Use in a well-ventilated area.

**8.2.2. Personal protective equipment (PPE)**

**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:  
Safety glasses with side shields.

*Applicable Norms/Standards*

Use eye protection conforming to EN 166

**Skin/hand protection**

See Section 7.1 for additional information on skin protection.

### Respiratory protection

Respiratory protection is not required.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	
Physical state	Liquid.
Colour	Colourless
<b>Specific Physical Form:</b>	Liquid.
<b>Odor</b>	Slight Odor, Characteristic Odour
<b>pH</b>	<i>No data available.</i>
<b>Boiling point/boiling range</b>	approximately °C 100 °C
<b>Melting point</b>	approximately °C 0 °C
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Explosive properties</b>	Not classified
<b>Oxidising properties</b>	Not classified
<b>Flash point</b>	No flash point
<b>Autoignition temperature</b>	<i>No data available.</i>
<b>Flammable Limits(LEL)</b>	<i>Not applicable.</i>
<b>Flammable Limits(UEL)</b>	<i>Not applicable.</i>
<b>Relative density</b>	>=1 [Ref Std:WATER=1]
<b>Water solubility</b>	Complete
<b>Viscosity</b>	<i>No data available.</i>

### 9.2. Other information

<b>EU Volatile Organic Compounds</b>	<i>No data available.</i>
<b>Molecular weight</b>	<i>No data available.</i>
<b>Percent volatile</b>	<i>No data available.</i>

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

### 10.2 Chemical stability

Stable.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

### 10.4 Conditions to avoid

Heat.

### 10.5 Incompatible materials

None known.

### 10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

### 11.1 Information on Toxicological effects

#### Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

#### Inhalation

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

#### Skin contact

Contact with the skin during product use is not expected to result in significant irritation.

#### Eye contact

Contact with the eyes during product use is not expected to result in significant irritation.

#### Ingestion

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

#### Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

#### Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Tartaric acid	Dermal	Rat	LD50 > 5,000 mg/kg
Tartaric acid	Ingestion	Rat	LD50 > 2,000, < 5,000 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Overall product	Rabbit	Minimal irritation

For the component/components, either no data is currently available or the data is not sufficient for classification.

#### Serious Eye Damage/Irritation

Name	Species	Value
Tartaric acid	In vitro data	Corrosive

#### Skin Sensitisation

For the component/components, either no data is currently available or the data is not sufficient for classification.

#### Respiratory Sensitisation

For the component/components, either no data is currently available or the data is not sufficient for classification.

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For the component/components, either no data is currently available or the data is not sufficient for classification.

**Carcinogenicity**

For the component/components, either no data is currently available or the data is not sufficient for classification.

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

For the component/components, either no data is currently available or the data is not sufficient for classification.

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

For the component/components, either no data is currently available or the data is not sufficient for classification.

**Specific Target Organ Toxicity - repeated exposure**

For the component/components, either no data is currently available or the data is not sufficient for classification.

**Aspiration Hazard**

For the component/components, either no data is currently available or the data is not sufficient for classification.

**Please contact the address or phone number listed on the first page of the SIS for additional toxicological information on this material and/or its components.**

The product was evaluated by a toxicologist to be safe for its intended use.

**SECTION 12: Ecological information**

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

**12.1. Toxicity**

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Tartaric acid	87-69-4	Green Algae	Experimental	72 hours	EC50	51.4 mg/l
Tartaric acid	87-69-4	Water flea	Experimental	48 hours	EC50	93.3 mg/l
Tartaric acid	87-69-4	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Tartaric acid	87-69-4	Green Algae	Experimental	72 hours	NOEC	3.1 mg/l

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Tartaric acid	87-69-4	Experimental Biodegradation	28 days	BOD	85 % weight	Other methods

**12.3 : Bioaccumulative potential**

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Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Tartaric acid	87-69-4	Experimental Bioconcentration		Log Kow	-1.91	Other methods

### 12.4. Mobility in soil

Please contact manufacturer for more details

### 12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

### 12.6. Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Refer to Instructions for Use (IFU) for more information.

### EU waste code (product as sold)

180107 Chemicals other than those mentioned in 18 01 06

## SECTION 14: Transportation information

70-2011-0045-3, 70-2011-0341-6

Not hazardous for transportation

ADR/IMDG/IATA: Not restricted for transport.

## SECTION 15: Regulatory information

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

#### Global inventory status

Contact the manufacturer for more information

## SECTION 16: Other information

### List of relevant H statements

H318 Causes serious eye damage.

### Revision information:

Revision information not available

The product to which this Safety Information Sheet applies is classified as a medical device according to the EU Medical Device Regulation EU 2017/745.             
Medical devices which are invasive or used in direct physical contact with the human body are exempt from the requirements of classification and labelling according to Regulation (EC) No. 1272/2008 (CLP; Article 1, paragraph 5).             
The EU Medical Device Regulation does not foresee the use of Safety Data sheets for medical devices which are invasive or

**3M™ Ketac™ Cem radiopaque Liquid (37220, 37221)**

used in direct physical contact with the human body, as the safe use of the product is described through the Instructions for Use and /or the labelling for the product. Nevertheless, the 3M Safety Information Sheet is provided as a further service to customers to provide additional toxicology and chemical information on the product. In case of further questions, please contact your 3M representative listed on the Safety Information Sheet.

**3M Ireland Safety Information Sheets are available at [www.3M.com](http://www.3M.com)**