

## SAFETY DATA SHEETS

**This SDS packet was issued with item:**

074491304

**The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).**

074484432 074484440 074484903 074484911 074484937 074484945 074484952 074485009 074485751 074485827  
074485900 074490959 074490967 074490975 074490983 074490991 074491007 074491015 074491023 074491031  
074491049 074491056 074491064 074491072 074491098 074491106 074491114 074491122 074491130 074491155  
074491197 074491205 074491262 074491270 074491288 074491296 074491312 074491320 074491338 074491346  
074491353 074491361 074491379 074491387 074491775 074491809 074491817 074491825 074491833 074491841  
074491858

## Material Safety Data Sheet acc. to ISO/DIS 11014

Printing date 08/24/2010

Reviewed on 08/23/2010

### 1 Identification of substance:

#### Product details:

Trade name: **Charisma**

Application of the substance / the preparation Dental filling material

#### Manufacturer/Supplier:

Heraeus Kulzer GmbH  
Grüner Weg 11, D-63450 Hanau

Tel.: 0800 4372522

#### Information department:

Dr. Hoffmann  
Tel.: +49 6081 959-313  
Fax: +49 6081 959-223  
email: marcus.hoffmann@heraeus.com

### 2 Hazards Identification

Hazard description: not applicable

Information pertaining to particular dangers for man and environment not applicable

#### Classification system

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

NFPA ratings for USA (scale 0-4)



Health = 1  
Fire = 1  
Reactivity = 1

HMIS-Ratings (Scale 0-4)

HEALTH	0
FIRE	1
REACTIVITY	1

Health = 0  
Fire = 1  
Reactivity = 1

### 3 Composition/Data on components:

#### Chemical characterization

Description: Composition based on methacrylates

Dangerous components: Void

Additional information For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

General Information No special measures required.

After skin contact Generally the product does not irritate the skin.

After eye contact Rinse opened eye for several minutes under running water.

After swallowing Induce vomiting and seek advice of physician.

### 5 Fire fighting measures

#### Suitable extinguishing agents

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire fighting measures that suit the environment.

Protective equipment: No special measures required.

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USA

## Material Safety Data Sheet acc. to ISO/DIS 11014

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Reviewed on 08/23/2010

Trade name: **Charisma**

Additional information -

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### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** No special measures required.
- **Measures for cleaning/collecting:**  
Absorb with liquid binding material (diatomite, universal binders, for small amounts tissues).
- **Additional Information:**  
See Section 13 for disposal information.  
See Section 8 for information on personal protection equipment.

### 7 Handling and storage

- **Handling**
  - **Information for safe handling:** No special measures required.
  - **Information about protection against explosions and fires:** No special measures required.
- **Storage**
  - **Requirements to be met by storerooms and receptacles:** No special requirements.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:** Keep cool, if possible (not above 25 °C).

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional Information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
  - **General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.
  - **Breathing equipment:** Not required.
  - **Protection of hands:** Not required.
    - **Material of 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.
    - **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.
    - **For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**  
Natural rubber, NR
  - **Eye protection:** Not absolutely necessary.
  - **Body protection:** Light weight protective clothing

### 9 Physical and chemical properties:

General Information

Form: Pasty

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· <b>Color:</b>	Different according to coloring
· <b>Odor:</b>	Odorless
· <b>Change in condition</b>	
· <b>Melting point/Melting range:</b>	undetermined
· <b>Boiling point/Boiling range:</b>	undetermined
· <b>Flash point:</b>	>130°C (>266°F)
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Density:</b>	Not determined
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	Not miscible or difficult to mix

### 10 Stability and reactivity

- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** none
- **Additional information:**  
Product might polymerize after considerable exceeding of recommended storage time or temperature.

### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** No irritating effect.
- **Sensitization:** Sensitizing effect by skin contact is possible with prolonged exposure.
- **Additional toxicological information:**  
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version;  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

### 12 Ecological information:

- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
Small quantities can be polymerized by light and the cured solid material can be disposed of with the regular garbage. Larger quantities must be disposed of following the regulations of the local authorities.

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USA

## Material Safety Data Sheet acc. to ISO/DIS 11014

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Trade name: **Charisma**

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **DOT regulations:**
  - **Hazard class:** -
- **Land transport ADR/RID (cross-border)**
  - **ADR/RID class:** -
- **Maritime transport IMDG:**
  - **IMDG Class:** -
  - **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
  - **ICAO/IATA Class:** -
- **Transport/Additional information:** -

### 15 Regulations

- **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

- **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

- **Prop 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

- **Carcinogenicity categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **IARC (International Agency for Research on Cancer)**

Butyl-hydroxy-toluol

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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

Butyl-hydroxy-toluol

A4

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Markings according to EU guidelines:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EU" as issued in the latest valid version.

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**16 Other information:**

*These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing MSDS:** Safety department

· **Contact:**

Dr. Thiele Tel.: (+49) 6181 35-3012

email: [ruediger.thiele@heraeus.com](mailto:ruediger.thiele@heraeus.com)

· **\* Data compared to the previous version altered.**

USA

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Printing date 27.10.2015

Revision: 21.10.2015

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

- **1.1 Product identifier**
  - **Trade name:** **Charisma**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

  - **Application of the substance / the mixture** Dental filling material
- **1.3 Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**  
Heraeus Kulzer GmbH  
Grüner Weg 11, D-63450 Hanau
  - Tel.: 0800 4372522
  - **Informing department:** E-Mail: msds@kulzer-dental.com
- **1.4 Emergency telephone number:**  
Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
  - **Classification according to Regulation (EC) No 1272/2008**  
Skin Sens. 1 H317 May cause an allergic skin reaction.
- **2.2 Label elements**
  - **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
  - **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labelling:**  
triethylenglycoldimethacrylate
- **Hazard statements**  
H317 May cause an allergic skin reaction.
- **Precautionary statements**

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P321	Specific treatment (see on this label).
P363	Wash contaminated clothing before reuse.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
- **2.3 Other hazards -**
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

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**according to 1907/2006/EC, Article 31**

Printing date 27.10.2015

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**Trade name: Charisma**

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

· **3.2 Chemical characterisation: Mixtures**

- **Description:** Product based on methacrylates
- **Dangerous components:** Void
- **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; consult doctor in case of symptoms.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
In case of persistent symptoms consult doctor.

· **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**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.  
Use fire fighting measures that suit the environment.

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· **5.3 Advice for firefighters**

- **Protective equipment:** No special measures required.
- **Additional information -**

**SECTION 6: Accidental release measures**

· **6.1 Personal precautions, protective equipment and emergency procedures** Not required.

· **6.2 Environmental precautions:** No special measures required.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).

· **6.4 Reference to other sections**

See Section 13 for information on disposal.

See Section 8 for information on personal protection equipment.

**SECTION 7: Handling and storage**

· **7.1 Precautions for safe handling** No special measures required.

- **Information about protection against explosions and fires:** No special measures required.

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Revision: 21.10.2015

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- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage**
    - **Requirements to be met by storerooms and containers:** No special requirements.
    - **Information about storage in one common storage facility:** Not required.
    - **Further information about storage conditions:** Store cool (not above 25 °C).
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
  - **Components with critical values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
    - **Additional information:** The lists that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
  - **Personal protective equipment**
    - **General protective and hygienic measures**  
The usual precautionary measures should be adhered to in handling the chemicals.
    - **Breathing equipment:** Not required.
    - **Protection of hands:** recommended
      - **Material of 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.
      - **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
      - **For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**  
Butyl rubber, BR  
Nitrile rubber, NBR
    - **Eye protection:** not absolutely necessary
    - **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:** Different according to colour
      - **Smell:** Odourless
  - **Change in condition**
    - **Melting point/Melting range:** Not determined
    - **Boiling point/Boiling range:** Not determined
  - **Flash point:** >130 °C

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· <b>Self-inflammability:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product is not explosive.
· <b>Density</b>	Not determined
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	Not miscible or difficult to mix
· <b>Solvent content:</b>	
· <b>VOC EU</b>	g/l
· <b>9.2 Other information</b>	No further relevant information available.

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - **Conditions to be avoided:** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** None
- **Additional information:**  
If stored longer than recommended and/or above recommended temperature, product may polymerize generating heat.

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
  - **Acute toxicity** Based on available data, the classification criteria are not met.
  - **Primary irritant effect:**
    - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
    - **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
  - **Respiratory or skin sensitisation**  
May cause an allergic skin reaction.
  - **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
    - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
    - **Carcinogenicity** Based on available data, the classification criteria are not met.
    - **Reproductive toxicity** Based on available data, the classification criteria are not met.
  - **STOT-single exposure** Based on available data, the classification criteria are not met.
  - **STOT-repeated exposure** Based on available data, the classification criteria are not met.
  - **Aspiration hazard** Based on available data, the classification criteria are not met.

**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.

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- **Additional ecological information:**
  - **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies 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**  
Small quantities can be polymerized with the matching system component(s) and the cured solid material can be disposed of with the regular garbage.
- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

- |                                                                                  |                 |
|----------------------------------------------------------------------------------|-----------------|
| · <b>14.1 UN-Number</b>                                                          |                 |
| · <b>ADR, ADN, IMDG, IATA</b>                                                    | Void            |
| · <b>14.2 UN proper shipping name</b>                                            |                 |
| · <b>ADR, ADN, IMDG, IATA</b>                                                    | Void            |
| · <b>14.3 Transport hazard class(es)</b>                                         |                 |
| · <b>ADR, ADN, IMDG, IATA</b>                                                    |                 |
| · <b>Class</b>                                                                   | Void            |
| · <b>14.4 Packing group</b>                                                      |                 |
| · <b>ADR, IMDG, IATA</b>                                                         | Void            |
| · <b>14.5 Environmental hazards:</b>                                             |                 |
| · <b>Marine pollutant:</b>                                                       | No              |
| · <b>14.6 Special precautions for user</b>                                       | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable. |
| · <b>Transport/Additional information:</b>                                       | -               |
| · <b>UN "Model Regulation":</b>                                                  | Void            |

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.

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**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

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**Trade name: Charisma**

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

**SECTION 16: Other information**

*These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

· **\* Data compared to the previous version altered.**

GB