


# Material Safety Data Sheet

according to 1907/2006/EC, Article 31  
Hoffmann Dental Manufaktur GmbH

Reviewed on: 10 August 2012

1. Identification of substance and manufacturer's name			
<b>Product details/Trade name:</b>			
			
<b>HOFFMANN'S</b> Harmonic Shades, Powder			
<b>Manufacturer/Supplier:</b> Wangenheimstr. 37/39, D-14193 Berlin Telephone: +49 (0) 30 / 82 00 99 0 Fax: +49 (0) 30 / 82 28 145			
<b>Information department/Emergency information:</b> Quality assurance department <b>e-mail:</b> sicherheit@hoffmann-dental.com			
2. Composition/Data on ingredients			
<b>Chemical characterization:</b> <b>Description:</b> Mixture of below-mentioned substances with innocuous additions.			
<b>Hazardous ingredients:</b>			
CAS: 1314-13-2 EINECS: 215-222-5	Zinc Oxide	Warning; H410 N; R 50/53	80 - 90 %
CAS: 1309-48-4 EINECS: 215-171-9	Magnesium Oxide		5 - 10 %
CAS: 7789-75-5 EINECS: 232-188-7	Calcium Fluoride		0 - 5 %
3. Hazards identification			
<b>Hazard designation:</b> N Hazardous to the environment.			
<b>Special danger warning for human and environment:</b> The product has to be labelled due to the calculation procedure of the „EU-Directive of the General Classification of Preparations“ in the latest valid version. H410: Very toxic to aquatic life with long lasting effects. R 50/53: Very toxic to aquatic organisms, may cause long-term harmful effects in the waters.			
<b>Classification system:</b> The classification is in compliance with the current EU-lists, but is also completed with details given by technical literature and company.			
4. First aid measures			
<b>- After inhaling:</b>	Fresh air.		
<b>- After skin contact:</b>	Remove by washing under the running water.		
<b>- After eye contact:</b>	Flush opened eye with running water for several minutes. Consult an eye specialist.		
<b>- After swallowing:</b>	(A plenty of substance) In case of feeling unwell consult a physician immediately.		
5. Fire fighting measures			
<b>Suitable extinguishing agents:</b>	Not applicable		
<b>Special protective equipment:</b>	No special measures are required.		
6. Accidental release measures			
<b>Person-related safety precautions:</b>	Avoid inhaling of powder.		
<b>Environmental precautions:</b>	Prevent any spillage from entering the sewage system.		
<b>Methods of cleaning up:</b>	Pick up dry powder and dispose of as usual. Clean subsequently and prevent the development of dust.		

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## 7. Handling and storage

- Handling:** The product is only for dental use.  
**- Information about safe handling:** No special measures are required.  
**- Information about protection against explosion and fire:** No special measures are required.
- Storage:**  
**- Information about storage:** Store dry and tightly closed in original container.  
**- Information about storage in one common storage facility:** Not required.  
**- Requirements for storage rooms:** No special requirements.

## 8. Exposure controls and personal protection

### Data on limiting values that require monitoring at the workplace:

Ingredients with limiting values that require monitoring at the workplace		
1314-13-2	Zinc Oxide	(EU-No.: 215-222-5)
TLV	1 A mg/m <sup>3</sup>	smoke; DFG
1309-48-4	Magnesium Oxide	(EU-No.: 215-171-9)
TLV	6 A mg/m <sup>3</sup>	smoke; DFG
7789-75-5	Calcium Fluoride	(EU-No.: 232-188-7)
TLV	2,5 E mg/m <sup>3</sup> as F	DFG

**Technical protective measures:** Not required.

**Notice:** When used according to regulations, no smoke containing zinc is released.

### Personal protective equipment

**Respiratory protection:** Not required.

**Skin protection:** Not required necessarily; the glove material has to be impermeable and resistant to the product/the substance/the preparation. Due to absent tests no recommendations about the glove material can be given for the product/the preparation/the chemical mixture. The selection of the glove material should be in consideration of the breakthrough time, kinds of permeation and the degradation.

**Material of gloves:** The selection of the suitable gloves does not only depend on material but also on further quality characteristics and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has to be checked prior to the application.

**Penetration time of glove material:** The exact breakthrough time is to be obtained from the manufacturer of the protective gloves and has to be observed.

**For the permanent contact in application areas without increased risk of injury (e. g. lab) gloves made of the following materials are suitable:**

Natural rubber (Latex).

**For the permanent contact of a maximum of 15 minutes gloves made of the following material are suitable:**

Natural rubber (Latex).

**Eye protection:** Recommended: Protective goggles with side protection.

**Body protection:** Lightweight protective clothing.

### General protective and hygienic measures:

The usual precautionary measures for contact with chemicals are to observe.

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## 9. Physical and chemical properties

<b>General information:</b>	
<b>Form:</b>	Powder
<b>Colour:</b>	Whitish
<b>Odour:</b>	Odourless
<b>Change in state</b>	
<b>Boiling point/boiling range:</b>	Not applicable
<b>Melting point/melting range:</b>	> 1.200 °C
<b>Flash point:</b>	Not applicable
<b>pH-value:</b>	Not applicable
<b>Autoflammability:</b>	The product does not self ignite.
<b>Danger of explosion:</b>	Product is not explosive
<b>Bulk density:</b>	500 kg/m <sup>3</sup>
<b>Solubility in water:</b>	Insoluble
<b>Solvent content:</b>	
<b>Organic solvents:</b>	0,0 %

## 10. Stability and reactivity

<b>Conditions to be avoided:</b>	No decomposition when used according to regulations.
<b>Hazardous reactions:</b>	No hazardous reactions are known.
<b>Hazardous decomposition products:</b>	No hazardous decomposition products are known.

## 11. Toxicological information

Values given below refer to basic substance Zinc Oxide.

### From subacute to chronic toxicity :

Sensitisation: Research on human: no sensitising effect

Mutagenicity Test: Ames-Test: Negative; no mutagenic effect.

<b>Additional toxicological information:</b>	In our experience and according to the literature provided to us the product does not cause any noxious effects when used and handled vv according to regulations.
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## 12. Ecological information

### Referring to main substance:

**Biological decomposition:** Is not determined.

**Ecotoxicological information:** Quantitative data about ecological effects are not available for this product.

**Biological effects:** Very toxic to aquatic organisms. May cause long-term harmful effects in the waters.

**General information:** Prevent releasing into waters, sewage system and soil.

Water hazard class 2 (self-assessment): hazardous to waters.

## 13. Disposal details



<b>Product:</b>	Do not dispose of together with domestic waste. Prevent releasing into sewage system.
<b>Uncleaned packaging:</b>	Dispose of in accordance with official regulations.

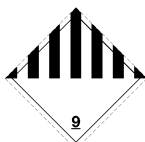
<b>European Waste Catalogue</b>	
18 01 06	Chemicals containing or consisting of hazardous substances

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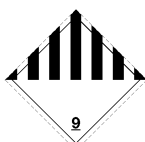
## 14. Transport information

### Land transport ADR/RID and GGVS/GGVE (cross-border/national):



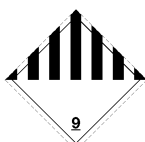
**ADR/RID-GGVS/E class:** 9 (M7) Miscellaneous hazardous substances and items  
**Kemler-Number:** 90  
**UN-Number:** 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE  
**Packaging group:** III  
**Hazard label:** 9  
**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE)

### Maritime transport IMDG/GGV sea:



**IMDG/GGV sea class:** 9  
**UN-Number:** 3077  
**Label:** 9  
**Packaging group:** III  
**EMS-Number:** F-A, S-F  
**MARINE POLLUTANT:** YES  
**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE)

### Air transport ICAO-TI and IATA-DGR:



**ICAO / IATA class:** 9  
**UN/ID Number:** 3077  
**Label:** 9  
**Packaging group:** III  
**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE)

## 15. Regulations according to GHS

**Signal word:** WARNING

**Hazard pictogram:**



**Hazard Statements:** H410: Very toxic to aquatic life with long lasting effects  
**Precautionary Statements:** P273: Avoid release to the environment

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## 16. Regulations

### Labelling according to EU-Directive:

The product has been classified and labelled in accordance with EU-Directives / Ordinance on Hazardous Materials (GefStoffV).

### Labels:



N Hazardous to the environment

### Risk phrases:

50/53 Very toxic to aquatic organisms, may cause long-term harmful effects in waters.

### Safety phrases:

57 Use appropriate container to avoid environmental contamination.

### National regulations:

### Water hazard class:

2 (hazardous to waters), self-assessment.

## 17. Other information

This information is based on our present level of knowledge. However, they do not represent a guarantee for any product features and do not establish a contractual relationship. It is to emphasize that there are no warnings at all about human health risks by Zinc Oxide as far as the product is used according to regulations.

**Department issuing MSDS:** Quality assurance department