



Safety Data Sheet

according to 2001/58/EC

Zinc oxide

Print date : 13.03.2006

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1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance or preparation

Zinc oxide

Further product name

Eugenol - zinc oxide combined pack.

Use of the substance/preparation

Zinc oxide- eugenol- cavity liner and temporary filling material.

1.2 Company/undertaking identification

Company name : Kettenbach GmbH & Co. KG
Street : Im Heerfeld 7
Place : D-35713 Eschenburg
Contact person : Quality Assurance Manager
e-mail : info@kettenbach.de
Internet : www.kettenbach.de

Telephone : + 49(0) 2774/705-0
Telefax : +49 (0)2774/705-33

2. Composition/information on ingredients

Chemical characterization Zinc oxide.

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
215-222-5	1314-13-2	Zinc oxide	> 98,5 %	N R50-53

Full text of each relevant R phrase can be found in heading 16.

Index No. : 030-013-00-7

3. Hazards identification

Classification

Symbols : Dangerous for the environment

R-phrases :

Very toxic to aquatic organisms.

May cause long-term adverse effects in the aquatic environment.

Explication of special hazards for human health and environment

Possible harmful effect(s) on human beings and possible symptom(s):
No risks worthy of mention.

Possible harmful effect(s) on the environment:
Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

4. First aid measures

General information

Symptoms: Hitherto no symptoms known.

After inhalation

Provide fresh air. Consult physician if problems persist.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.

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After contact with eyes	Rinse immediately carefully and thoroughly with eye-bath or water. In case of durable symptoms, consult an ophthalmologist.
After ingestion	Rinse mouth immediately and drink large quantities of water. Consult physician if problems persist.

5. Fire-fighting measures

Suitable extinguishing media	Material itself is not combustible. Extinguishing materials should be selected according to the surrounding area.
Special protective equipment for fire-fighters	In case of fire: Wear self-contained breathing apparatus.

6. Accidental release measures

Personal precautions	Avoid generation of dust.
Environmental precautions	Do not empty into drains or the aquatic environment.
Methods for cleaning up/taking up	Collect mechanically. Treat the assimilated material according to the section on waste disposal.

7. Handling and storage

7.1 Handling

Advice on safe handling	Do not breathe dust.
Advice on protection against fire and explosion	No special precautionary measures are necessary.

7.2 Storage

Requirements for storage rooms and vessels	Store only in original container. Keep dry. Avoid generation of dust.
Further information on storage conditions	No special precautionary measures are necessary.

8. Exposure controls/personal protection

8.1 Exposure limit values

8.2 Exposure controls

Protective and hygiene measures	When using do not eat, drink, smoke or sneeze. Avoid contact with skin, eye and clothing. Wash hands when done working with material; at breaks, lunch, shift changes, etc.
Hand protection	Single-use gloves. Qualified materials: PE (polyethylene). NR (Natural rubber (Caoutchouc), Natural latex).
Eye protection	Framed glasses.
Skin protection	No special precautionary measures are necessary.

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9. Physical and chemical properties

9.1 General information

Physical state : Powder
 Colour : white
 Odour : odourless

9.2 Important health, safety and environmental information

pH-Value (at 20 °C) :	7-8	ISO 787/9	Test method
Changes in the physical state			
Melting point :		1970 - 1975 °C	
Flash point :			not applicable
Flammability			not applicable
Explosive properties			
not Explosive.			
Lower explosion limits :			VDI 2263
Upper explosion limits :			VDI 2263
Water solubility :		< 0,002 g/L	
at (20 °C)			
Solubility in other solvents :	Soluble in: Alkalis (alkalis). acid.		
	Insoluble in: Solvents.		

9.3 Other information

Auto-ignition temperature solid :		not applicable
gas :		

10. Stability and reactivity

Conditions to avoid	not applicable
Materials to avoid	Alkalis (alkalis). acid.
Hazardous decomposition products	none / none

11. Toxicological information

Acute toxicity	Acute toxicity, oral: LD50: (rat.) > 15.000 mg ZnO / kg
Corrosive and irritant effects	Irritant effect on the skin: Not an irritant. (rabbit.) OECD 404 Irritant effect on the eye: Not an irritant. (rabbit.) OECD 405
Sensitising effects	no danger of sensitization. (Guinea-pig.)

12. Ecological information

Ecotoxicity	EC50: (Selenastrum capricornutum , 72 h): 170 µg ZnO / l (LISEC 1997)
Mobility	not applicable



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Persistence and degradability	not applicable
Bioaccumulative potential	not applicable
Additional information	Doesn't get into the sewage water as long as the process is carried out according to regulations. Leakage into the environment must be prevented.

13. Disposal considerations

Advice on disposal	Remove according to the regulations. Do not empty into drains or the aquatic environment.
Waste disposal number of waste from residues/unused products :	
060316	WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of salts and their solutions and metallic oxides; metallic oxides other than those mentioned in 06 03 15
Contaminated packaging	Completely emptied packings can be re-cycled.

14. Transport information

Land transport (ADR/RID)

ADR/RID class :	9
Warnings plate	
Hazard-no. :	90
UN number :	3077
Hazard label :	9
ADR/RID packing group :	III

Description of the goods

UMWELTGEFÄHRLICHER STOFF, N.A.G. (Zinkoxid)

Remarks (land transport) Eistufungscode: M7

Inland waterways transport

ADN/ADNR class :	9
UN number :	3077

Description of the goods

UMWELTGEFÄHRLICHER STOFF, N.A.G. (Zinkoxid)

Remarks (inland waterways transport) Eistufungscode: M7

Marine transport

IMDG code :	9+mp
UN number :	3077
Marine pollutant :	mp
IMDG packing group :	III

Description of the goods

UMWELTGEFÄHRLICHER STOFF, N.A.G. (Zinkoxid)

Air transport

ICAO/IATA-DGR :	9
UN/ID number :	3077
Hazard label :	Miscellan
IATA-packing instructions - Passenger :	911

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IATA-max. quantity - Passenger :	free
IATA-packing instructions - Cargo :	911
IATA-max. quantity - Cargo :	free
ICAO packing group :	III

Description of the goods

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (zinc oxide)

15. Regulatory information

15.1 Labelling

Indication of danger : N - Dangerous for the environment



N - Dangerous for the environment

Labelling according to EC-guidelines : 67/548/EEG-1999/45/EG

R phrases : 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases : 57 Use appropriate containment to avoid environmental contamination.
60 This material and its container must be disposed of as hazardous waste.
61 Avoid release to the environment. Refer to special instructions / Safety data sheets.

15.2 National regulations

Water contaminating class : 2 - water contaminating

16. Other information

List of relevant R phrases

50	Very toxic to aquatic organisms.
53	May cause long-term adverse effects in the aquatic environment.
50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Other data

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.