

Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No.1907/2006

Date / Revised: 18.10.2007

Product: **Z-COTE***

Version: 1.3

(30083071/SDS_COS_EU/EN)

Date of print 04.02.2008

1. Substance/preparation and company identification

Z-COTE*

Use: cosmetic ingredient

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Care Chemicals

Telephone: +49 621 60-28444

Telefax number: +49 621 60-28189

E-mail address: EM-Masterdata@basf.com

Emergency information:

Telephone: +49 180 2273-112

Telefax number: +49 621 60-92664

2. Hazard identification

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

3. Composition/information on ingredients

Chemical nature

INCI Name: Zinc Oxide

zinc oxide

CAS Number: 1314-13-2

EC-Number: 215-222-5

INDEX-Number: 030-013-00-7

4. First-aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Rinse mouth and then drink plenty of water.

Note to physician:

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-fighting measures

Suitable extinguishing media:

water, carbon dioxide, foam, dry powder

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions:

Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:

For small amounts: Sweep/shovel up.

For large amounts: Sweep/shovel up.

Dispose of absorbed material in accordance with regulations.

7. Handling and storage

Handling

Protection against fire and explosion:
No special precautions necessary.

Storage

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place.

8. Exposure controls and personal protection

Personal protective equipment

Respiratory protection:

Breathing protection if breathable aerosols/dust are formed. Particle filter with high efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P3 or FFPE) Suitable respiratory protection for higher concentrations or long-term effect: Self-contained breathing apparatus.

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

General safety and hygiene measures:

Avoid contact with eyes. Avoid inhalation of dusts. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Form: powder, solid
Colour: white
Odour: odourless

pH value: approx. 7
(50 g/l, 20 °C)
(as suspension)

Melting point: approx. 1,970 °C

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Flammability: does not ignite

Bulk density: approx. 500 - 700 kg/m³
Literature data.

Solubility in water:
< 1.6 mg/l

Other information:
primary particle size < 200 nm

10. Stability and reactivity

Thermal decomposition: No decomposition if used as directed.

Substances to avoid:
hydrogen peroxide, magnesium

Hazardous reactions:
No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological information

Acute toxicity

LD50 rat (oral): > 5,000 mg/kg
Literature data.

LC50 rat (by inhalation): > 5.7 mg/l 4 h (BASF-Test)

Irritation

Primary skin irritation rabbit: non-irritant
Literature data.

Primary irritations of the mucous membrane rabbit: non-irritant
Literature data.

Sensitization

Guinea pig maximization test guinea pig: Non-sensitizing. (OECD Guideline 406)
Literature data.

Genetic toxicity

Assessment of mutagenicity:
The substance was not mutagenic in bacteria. The substance was mutagenic in various cell culture test systems; however, these results could not be confirmed in tests with mammals.

12. Ecological information

Ecotoxicity

Assessment of aquatic toxicity:
Very toxic (acute effect) to aquatic organisms.

Toxicity to fish:
LC50 (96 h) 0.14 mg/l, *Oncorhynchus mykiss* (static)
Literature data.

Aquatic invertebrates:
EC50 (48 h) 0.07 mg/l, *Daphnia magna* (static)

Aquatic plants:
EC50 (96 h) 0.03 mg/l, *Selenastrum capricornutum* (static)

Microorganisms/Effect on activated sludge:
EC0 (16 h) > 80,000 mg/l, *Pseudomonas fluorescens*

Persistence and degradability

Assessment biodegradation and elimination (H2O):
Inorganic product which cannot be eliminated from water by biological purification processes.

13. Disposal considerations

Observe national and local legal requirements.

14. Transport information

Land transport

ADR

| | |
|-----------------------|---|
| Hazard class: | 9 |
| Packing group: | III |
| ID number: | UN 3077 |
| Hazard label: | 9 |
| Proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains ZINC OXIDE) |

RID

| | |
|----------------|---------|
| Hazard class: | 9 |
| Packing group: | III |
| ID number: | UN 3077 |
| Hazard label: | 9 |

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Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(contains ZINC OXIDE)

Inland waterway transport

ADNR

Hazard class: 9
Packing group: III
ID number: UN 3077
Hazard label: 9
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(contains ZINC OXIDE)

Sea transport

IMDG

Hazard class: 9
Packing group: III
ID number: UN 3077
Hazard label: 9
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(contains ZINC OXIDE)

Air transport

IATA/ICAO

Hazard class: 9
Packing group: III
ID number: UN 3077
Hazard label: 9
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(contains ZINC OXIDE)

15. Regulatory information

Regulations of the European union (Labelling) / National legislation/Regulations

EC-Number: 215-222-5

Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances:

Hazard symbol(s)
N Dangerous for the environment.

R-phrase(s)

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|-------------|--|
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| S-phrase(s) | |
| S60 | This material and its container must be disposed of as hazardous waste. |
| S61 | Avoid release to the environment. Refer to special instructions/safety data sheets. |

Other regulations

as in Annex I of Directive 67/548/EEC

16. Other information

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.