

SAFETY DATA SHEET**ZEODENT® 103**

Material no.		Version	1.1 / US
Specification	194038	Revision date	02/03/2018
Order Number		Print Date	03/19/2018
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1. Identification**1.1. Product identifier**

Trade name	ZEODENT® 103
Chemical Name	Silicon dioxide, chemically prepared
CAS-No.	112926-00-8, 7631-86-9

1.2. Recommended use of the chemical and restrictions on use

Relevant applications identified	Dental
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1.3. Details of the supplier of the safety data sheet

Company	Evonik Corporation USA 299 Jefferson Road Parsippany, NJ 07054-0677 USA
Telephone	973-929-8000
Telefax	973-929-8040
Email address	Product-Regulatory-Services@Evonik.com

1.4. 24 HOUR EMERGENCY TELEPHONE NUMBERS:

CHEMTREC - US & CANADA:	800-424-9300
CHEMTREC MEXICO:	01-800-681-9531
CHEMTREC INTERNATIONAL:	+1 703-527-3887 (collect calls accepted)
Product Regulatory Services	: 973-929-8060

2. Hazards identification**2.1. Classification of the substance or mixture**

Classification according to Regulation 29CFR 1910.1200	
Remarks	Not a hazardous substance or mixture.

2.2. Label elements

Statutory basis	Classification according to Regulation 29CFR 1910.1200
Remarks	Not a hazardous substance or mixture.

2.3. Other hazards

None known.

3. Composition/information on ingredients

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3.1. Substances**• Silicon dioxide, chemically prepared**

CAS-No. 112926-00-8

Remarks Not a hazardous substance or mixture.

Other information

A new CAS , 112926-00-8, has been assigned to Amorphous Precipitated Silica to distinguish it from crystalline. According to EPA this product meets TSCA requirements and is listed on the TSCA Inventory as Silica, CAS 7631-86-9.

3.2. Mixtures**not applicable**

No hazardous ingredients

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

In case product dust is released: Possible discomfort: cough, sneezing
Move victims into fresh air.

Skin contact

Wash off with soap and plenty of water.

Eye contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes or until all material has been removed. Obtain medical attention.

Ingestion

If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed**Symptoms**

None known

4.3. Indication of any immediate medical attention and special treatment needed

No hazards which require special first aid measures.

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

Suitable extinguishing media: Water spray, foam, CO2, dry powder., Adapt fire-extinguishing measures to surroundings

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

None known.

5.3. Advice for firefighters

As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

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6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protective equipment.

6.2. Environmental precautions

Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil. Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems.

6.3. Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. Handling and storage**7.1. Precautions for safe handling**

Use with adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities**Advice on protection against fire and explosion**

Take precautionary measures against static discharges.

Storage

Keep container tightly closed in a dry and well-ventilated place.

8. Exposure controls/personal protection**8.1. Control parameters****• Silicon dioxide, chemically prepared**

CAS-No. 112926-00-8

7631-86-9

Control parameters 6 mg/m³

Recommended exposure limit (REL):(NIOSH)

8.2. Exposure controls**Personal protective equipment****Respiratory protection**

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Hand protection

Wear protective gloves made of the following materials: material, rubber, leather.

The material thickness and rupture time data do not apply to non-solute solids / dusts.

The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes prior to use.

Eye protection

Wear safety glasses with side shields. In case dusts are formed, wear close fitting protective goggles.

Skin and body protection

A safety shower and eye wash fountain should be readily available.

To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

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Hygiene measures

When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work.
To ensure ideal skin protection: use super fatted soaps and skin cream for skin care.
Wash contaminated clothing before re-use.

9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

physical state	solid
Colour	white
Form	powder
Odour	odourless
Odour Threshold	not applicable
pH	approx. 6 - 8 (50 g / l) (20 °C) Method: DIN / ISO 787 / 9 (suspension)
Melting point/range	approx. 1700 °C
Boiling point/range	not determined
Flash point	not applicable Solid
Evaporation rate	not applicable
Flammability (solid, gas)	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Vapour pressure	not applicable
Vapour density	not applicable
Density	approx. 2 g/cm ³ (20 °C)
Water solubility	> 1 mg/l
Autoignition temperature	not applicable
Thermal decomposition	> 2000 °C
Viscosity, dynamic	not applicable

9.2. Other information

Explosiveness	Not to be expected in view of the structure
Minimum ignition energy	not applicable

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10. Stability and reactivity**10.1. Reactivity**

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No hazardous reactions are known if properly handled and stored.

10.4. Conditions to avoid

No specific hazards are known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None known.

Stable under normal conditions.

Product will not undergo hazardous polymerization.

11. Toxicological information**11.1. Information on toxicological effects**

No toxicological tests are available on the product.

Acute oral toxicity LD50 Rat: > 5000 mg/kg
Method: analogous OECD method
comparable product
Based on available data, the classification criteria are not met.

Acute inhalation toxicity LC0 Rat: 0.69 mg/l / 4 h
Method: OECD Test Guideline 403
No deaths occurred.
comparable product
Based on available data, the classification criteria are not met.

Acute dermal toxicity LD50 Rabbit: > 5000 mg/kg
comparable product
Based on available data, the classification criteria are not met.

Skin irritation Rabbit
not irritating
Method: analogous OECD method
comparable product
Based on available data, the classification criteria are not met.

Eye irritation Rabbit
not irritating
Method: analogous OECD method
comparable product
Based on available data, the classification criteria are not met.

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Sensitization	not known
Assessment of STOT single exposure	no evidence for hazardous properties
Assessment of STOT repeat exposure	no evidence for hazardous properties
Risk of aspiration toxicity	No aspiration toxicity classification
Mutagenicity assessment	no evidence of mutagenic effects
Carcinogenicity	No evidence that cancer may be caused.
carcinogenicity assessment	Contains no carcinogenic substances as defined by NTP, IARC and/or OSHA.
Toxicity to reproduction	no evidence of reproductiontoxic properties
Human experience	Silicosis or other product specific illnesses of the respiratory tract were not observed in association with the product.
Further information	An Expert Judgment stated that no classification is necessary based on present knowledge.

12. Ecological information**12.1. Toxicity**

Toxicity to fish	LC50 (Brachydanio rerio): > 10000 mg/l / 96 h Method: OECD 203 The reported toxic effects relate to the nominal concentration.
Toxicity in aquatic invertebrates	EC50 Daphnia magna: > 1000 mg/l / 24 h Method: OECD 202 The reported toxic effects relate to the nominal concentration.

12.2. Persistence and degradability

Biodegradability	The methods for determining biodegradability are not applicable to inorganic substances.
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12.3. Bioaccumulative potential

Bioaccumulation	Not to be expected.
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12.4. Mobility in soil

Mobility	No remarkable mobility in soil is to be expected.
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12.5. Other adverse effects

Further Information	An Expert Judgment stated that no classification is necessary based on present knowledge.
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13. Disposal considerations**13.1. Waste treatment methods****Product**

Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method.

Uncleaned packaging

Packaging material should be recycled or disposed of in accordance with federal, state and local regulations.

14. Transport information**Not dangerous according to transport regulations.**

- | | |
|---|-----|
| 14.1. UN number: | -- |
| 14.2. UN proper shipping name: | -- |
| 14.3. Transport hazard class(es): | -- |
| 14.4. Packing group: | -- |
| 14.5. Environmental hazards (Marine pollutant): | -- |
| 14.6. Special precautions for user: | Yes |
- Not dangerous according to transport regulations.

15. Regulatory information**US Federal Regulations****OSHA**

If listed below, chemical specific standards apply to the product or components:

- None listed

Clean Air Act Section (112)

If listed below, components present at or above the de minimus level are hazardous air pollutants:

- None listed

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

Remarks This material does not contain any components with a SARA 302 RQ.

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SARA 304 - Emergency Release Notification

Remarks This material does not contain any components with a section 304 EHS RQ.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Remarks This material does not contain any components with a CERCLA RQ.

SARA Title III Section 311/312 Hazard Categories

The product meets the criteria only for the listed hazard classes:

- No SARA Hazards

SARA Title III Section 313 Reportable Substances

If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

- None listed

Toxic Substances Control Act (TSCA)

If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

- None listed

State Regulations**California Proposition 65**

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

An employer using HMIS/NFPA labeling must through training ensure that its employees are fully aware of the hazards of the chemicals used.

NFPA Ratings

Health :	1
Flammability :	0
Reactivity :	0

16. Other information**Further information**

Revision date 02/03/2018

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Legend

ACC	American Chemistry Council
ACGIH	American Conference of Governmental Industrial Hygienists
ACS	Advisory Committee on Sustainability
ADI	Acceptable Daily Intake
ASTM	American Society for Testing and Materials
ATP	Adaptation to Technical Progress
BCF	Bioconcentration factor
BOD	Biochemical oxygen demand
c.c.	closed cup
CAO	Cargo Aircraft Only
Carc	Carcinogen
CAS	Chemical Abstract Services
CDN	Canada
CEPA	Canadian Environmental Protection Act
CERCLA	Comprehensive Environmental Response – Compensation and Liability Act
CFR	Code of Federal Regulations
CMR	carcinogenic-mutagenic-toxic for reproduction
COD	Chemical oxygen demand
DIN	German Institute for Standardization
DM EL	Derived minimum effect level
DNEL	Derived no effect level
DOT	Department of Transportation
EC50	half maximal effective concentration
EPA	Environmental Protection Agency
Erc50	Reduction of Growth Rate
ERG	Emergency Response Guide Book
FDA	Food and Drug Administration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
GLP	Good Laboratory Practice
GMO	Genetic Modified Organism
HCS	Hazard Communication Standard
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO-TI	International Civil Aviation Organization- Technical Instructions
ICCA	International Council of Chemical Association
ID	Identification number
IMDG	International Maritime Dangerous Goods
IUPAC	International Union of Pure and Applied Chemistry
ISO	International Organization For Standardization
LC50	50 % Lethal Concentration
LD50	50 % Lethal Dose
L(E)C50	LC50 or EC50
LOAEL	Low est observed adverse effect level
LOEL	Low est observed effect level
MARPOL	International Convention for the Prevention of Pollution from Ships
NFPA	National Fire Protection Association

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NOAEL	No observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
o. c.	open cup
OECD	Organisation for Economic Cooperation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PBT	Persistent, bioaccumulative, toxic
PEC	Predicted effect concentration
PNEC	Predicted no effect concentration
RQ	Reportable Quantity
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity
UN	United Nations
vPvB	very persistent, very bioaccumulative
voc	volatile organic compounds
WHMIS	Workplace Hazardous Materials Information System
WHO	World Health Organization