

**DENTSPLY/International
DENTSPLY/Caulk
Safety Data Sheet 510898**

1. Identification

Product Name

ZOE B & T® POWDER Zinc Oxide Eugenol
Base and Temporary Filling Material

SDS Code Number

510898

Substance Identity

ZOE B & T® POWDER Zinc Oxide Eugenol
Base and Temporary Filling Material

Date of Last Revision

04/15/11

Manufacturer:

DENTSPLY Caulk

Address

38 West Clarke Avenue

Milford DE 19963-1805

<http://www.caulk.com> <http://www.dentsply.com>

Grades or Minor Variant Identities

Not Applicable

Information Telephone Number

(302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)

Product Use (for Canada)

Not Applicable

Emergency Telephone Number

(302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)

2. Hazard(s) Identification

Warning

Causes Skin Irritation

Wash hands thoroughly after handling.

Wear protective gloves.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.

3. Composition/Information on Ingredients

Hazardous Components C.A.S. Number Exposure Limits %

Zinc oxide 1314-13-2 10 mg/M₃ > than 75

Other Information: Yellow colorant is inorganic iron oxide.

3. Hazard Identification

Emergency Overview: Material may be irritating to eyes. No significant hazards for emergency responses are known.

Routes of

Exposure Signs and Symptoms

Single, Repeated, or

Lifetime Exposure

Severity (Mild,

Moderate, Severe)

Acute and Chronic Health

Effect(s) Target Organ(s)

Eye Material may cause slight

transient (temporary) irritation.

Single & Repeated Moderate Irritation and possible corneal

damage due to the powders used

in the product.

Not Applicable

Skin Material may be an irritant after

repeated and prolonged exposure.

Repeated Mild Irritation or possible allergic response.

Not Applicable

Inhalation Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable

Ingestion Material is probably not harmful if swallowed

Not Applicable Mild Not Applicable Not Applicable

Other Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable

Medical Conditions Aggravated by Exposure Open sores and wounds of the skin.

Carcinogenicity NTP?: Not listed IARC monographs?: Not listed OSHA regulated?: No All components of this product are in compliance with the inventory listing Requirements of the U. S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Potential Environmental Effects Do not allow to enter sewers/ surface or ground water.

4. First Aid Measures

Routes of

Exposure

First Aid Instructions Immediate Medical

Attention

Delayed Effects

Eye Rinse opened eye for several minutes under running water.

If symptoms persist consult physician

Not Applicable Not Applicable

Skin Immediately wash with soap and water and rinse thoroughly. Not Applicable Not Applicable

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Inhalation Supply fresh air, consult physician if symptoms persist. Not Applicable Not Applicable

Ingestion Rinse mouth out and then drink plenty of water. If symptoms persist consult physician. Not Applicable Not Applicable

Other Not Applicable Not Applicable Not Applicable

Note to Physicians (Treating, Testing and Monitoring): Treat symptomatically.

5. Fire and Explosion Data

Flashpoint Method: Not Applicable Flammable (Explosive) Limits in Air

LEL: Not Applicable UEL: Not Applicable

Autoignition Temperature: Not

Applicable.

Other: Not

Applicable

Flame Propagation or Burning Rate (for

Solids) Not Applicable

Properties Contributing to Fire Intensity: Not

Applicable

Flammability Classification:

Not Applicable

Extinguishing Media: CO₂, powder, or water spray. Extinguishing Media to Avoid: Water with full jet.

Protection and Procedures for Firefighters: Firefighters should wear self-contained respiratory protective devices.

Unusual Fire and Explosion Hazards: During a fire, formation of toxic and/or irritating compounds may be present.

6. Accidental Release Measures

Containment Techniques: Material is a solid and as such containment is limited to steps to reduce dust.

Spill/Leak Clean-up Procedures and Equipment: Wear protective clothing and scoop up bulk material and place in a labeled plastic or metal container.

Evacuation Procedures: Not Applicable Special Instructions: Not Applicable Reporting Requirements: Not Applicable

7. Handling and Storage

Handling Practices and Warnings: Product is intended for dental use only. Handling of this product should be by trained dental healthcare professionals only.

Observe normal care for working with chemicals.

Storage Practices and Warnings: Store only in the original package. Keep package tightly sealed. Store in a dry area. Store away from food and beverages.

8. Exposure Control / Personal Protection

Individual Protection

Measures

Personal Protective Equipment for Normal Use Personal Protective Equipment for

Emergencies

Eye/Face Safety Glasses Not Applicable

Skin The glove material has to be impermeable and resistant to the product. Not Applicable

Inhalation Not Required Not Applicable

Body Protection Protective work clothing Not Applicable

Occupational Exposure Limits: Not Applicable Engineering Controls: Not Applicable

9. Physical and Chemical Characteristics

Appearance: Off white powder. Odor: Mild odor.

Normal Physical State: Dry powder. Melting Point: Not Applicable

Specific Gravity: 5.7 g/cm³ Solubility in Water: Partially soluble. pH: Not Applicable

Vapor Pressure (mm Hg): Not Applicable Vapor Density (AIR=1): Not Applicable Evaporation Rate (Butyl Acetate =1): Not Applicable

Flashpoint Method: Not Applicable Flammable (Explosive) Limits in Air

LEL: Not Applicable UEL: Not Applicable

Autoignition Temperature: Not Applicable

Other: Not Applicable

10. Stability and Reactivity Data

Incompatibility (Materials to Avoid): Strong acids, strong oxidizing agents.

Hazardous Products Produced During Decomposition: Oxides of Zinc.

Hazardous Polymerization: May Occur May Not Occur Conditions to Avoid: None known

Stability? Stable Unstable Conditions to Avoid: None known

11. Toxicological Information

Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic Effects, Reproductive Effects, or Structure Activity Data:

Not Applicable

Emergency Overview: Material may be mildly irritating to eyes.

Routes of

Exposure Signs and Symptoms

Single, Repeated, or

Lifetime Exposure

Severity (Mild,

Moderate, Severe)

Acute and Chronic Health

Effect(s) Target Organ(s)

Eye Material may cause slight

transient (temporary) irritation.

Single & Repeated Moderate Irritation and possible corneal

damage due to the fillers used in

the product.

Not Applicable

Skin Material may be an irritant after

repeated and prolonged exposure.

Repeated Mild Irritation or possible allergic

response.

Not Applicable

Inhalation Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable

Ingestion Material is probably not harmful

if swallowed

Not Applicable Mild Not Applicable Not Applicable

Other Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable

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Medical Conditions Aggravated by Exposure Open sores and wounds of the skin.

Carcinogenicity NTP?: Not listed IARC monographs?: Not listed OSHA regulated?: No All components of this product are in compliance with the inventory listing Requirements of the U. S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Potential Environmental Effects: Potential Environmental Effects Do not allow to enter sewers/ surface or ground water.

NFPA Hazard Classification Ratings (Scale 0-4), Health = 1, Fire = 0, Reactivity = 1

12. Ecological Information

Toxicity Data, Environmental Fate, Physical/Chemical Data, or other Data Supporting Environmental Hazard Statements:

Water Hazard Class 2 (Self-assessment): Very toxic to fish. Do not allow product to reach ground water, water streams or

sewage system. Also poisonous for fish and plankton in water bodies. R50/53 Very toxic to aquatic organisms may cause longterm

adverse effects in the aquatic environment.

Danger

Hazardous to aquatic life

13. Disposal Considerations

Regulations: Must not be disposed of together with household garbage. Dispose of material as solid waste in a closed container.

Dispose of in accordance with Federal, State and Local regulations

Properties (Physical/Chemical) Affecting Disposal: Dispose of material as solid waste in a closed container.

14. Transport Information

Regulated for Shipping: No. Not Regulated DOT Shipping Name: Not Regulated Packing Group: Not Applicable

Do Changes in Quantities, packaging, or shipment method change product classification? No

DOT Hazard Class: Not Applicable UN Number: Not Applicable

15. Regulatory Information

This product has been classified in accordance with the hazard criteria of the Globally Harmonized System of Classification and Labeling of Chemicals and the SDS contains all of the information required by the Canadian Controlled Products Regulations.

U.S. Federal Regulations: CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements.

Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting

Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

U.S. State Regulations California Proposition 65: This product does not contain any chemicals, which are on the California

Proposition 65 list.

Canada WHMIS, Workplace Hazardous Materials Information System: This product is not a controlled product.

International Regulations: Canadian Environmental Protection Act: This product is a medical device and not subject to

chemical notification requirements.

European Community Labeling: Not a dangerous preparation.

European Community Labeling: R50/53 Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic

environment. S57 Use appropriate container to avoid environmental contamination. S60 This material and its container must be

disposed of as hazardous waste.

European Inventory of New and Existing Chemicals Substances (EINECS): This product is a medical device and not subject to

chemical notification requirements.

Other: Not Applicable

16. Other Information

To the best of our knowledge this product does not contain gluten, wheat grains, flaxseed, natural rubber, or natural latex.

All components are synthetically produced; none are derived from animal products.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific products features and

shall not establish a legally valid contractual relationship.

The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to

accidents during transport or storage by the dealer. For quantities of material typically used in clinical practice, information necessary for safe

use and storage of the product is given in the DFU.

**DENTSPLY/International
DENTSPLY/Caulk
Safety Data Sheet 510899**

1. Identification

Product Name

ZOE B & T® LIQUID Zinc Oxide Eugenol
Base and Temporary Filling Material

SDS Code Number

510899

Substance Identity

ZOE B & T® LIQUID Zinc Oxide Eugenol
Base and Temporary Filling Material

Date of Last Revision

04/15/11

Manufacturer:

DENTSPLY Caulk

Address

38 West Clarke Avenue

Milford DE 19963-1805

<http://www.caulk.com> <http://www.dentsply.com>

Grades or Minor Variant Identities

Not Applicable

Information Telephone Number

(302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)

Product Use (for Canada)

Not Applicable

Emergency Telephone Number

(302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)

2. Hazard(s) Identification

Warning

Causes Skin Irritation

Wash hands thoroughly after handling.

Wear protective gloves.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.

3. Composition/Information on Ingredients

C.A.S. Number Exposure Limits %

Eugenol 99-53-0 10 mg/M₃ > than 98

Acetic Acid 64-19-7 10 PPM < than 2

3. Hazard Identification

Emergency Overview: Material may be irritating to eyes. No significant hazards for emergency responses are known.

Routes of

Exposure Signs and Symptoms

Single, Repeated, or

Lifetime Exposure

Severity (Mild,

Moderate, Severe)

Acute and Chronic Health

Effect(s) Target Organ(s)

Eye Material may cause slight

transient (temporary) irritation.

Single & Repeated Moderate Irritation and possible corneal

damage due to the powders used

in the product.

Not Applicable

Skin Material may be an irritant after

repeated and prolonged exposure.

Repeated Mild Irritation or possible allergic response.

Not Applicable

Inhalation Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable

Ingestion Material is probably not harmful if swallowed

Not Applicable Mild Not Applicable Not Applicable

Other Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable

Medical Conditions Aggravated by Exposure Open sores and wounds of the skin.

Carcinogenicity NTP?: Not listed IARC monographs?: Not listed OSHA regulated?: No All components of this product are in compliance with the inventory listing Requirements of the U. S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Potential Environmental Effects Do not allow to enter sewers/ surface or ground water.

4. First Aid Measures

Routes of

Exposure

First Aid Instructions Immediate Medical

Attention

Delayed Effects

Eye Rinse opened eye for several minutes under running water.

If symptoms persist consult a physician.

Not Applicable Not Applicable

Skin Immediately wash with soap and water and rinse thoroughly. Not Applicable Not Applicable

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Inhalation Supply fresh air, consult physician if complaint persist. Not Applicable Not Applicable

Ingestion Rinse mouth out and then drink plenty of water.

Induce vomiting and call for medical help.

Not Applicable Not Applicable

Other Not Applicable Not Applicable Not Applicable

Note to Physicians (Treating, Testing and Monitoring): Treat symptomatically.

5. Fire and Explosion Data

Flashpoint Method: 110°C (230°F)

Closed Cup

Flammable (Explosive) Limits in Air

LEL: Not Applicable UEL: Not Applicable

Autoignition Temperature: Not

Applicable.

Other: Not

Applicable

Flame Propagation or Burning Rate (for

Solids) Not Applicable

Properties Contributing to Fire Intensity: Not

Applicable

Flammability Classification:

Not Applicable

Extinguishing Media: CO₂, foam, powder, or water spray. Extinguishing Media to Avoid: Water with full jet.

Protection and Procedures for Firefighters: Firefighters should wear self-contained respiratory protective devices.

Unusual Fire and Explosion Hazards: During a fire, formation of toxic and/or irritating compounds may be present.

6. Accidental Release Measures

Containment Techniques: Absorb spill with inert material (e.g. vermiculite, sand, and earth), then place material in suitable labeled plastic or metal container.

Spill/Leak Clean-up Procedures and Equipment: Absorb spill with inert material (e.g. vermiculite, sand, and earth), then place material in suitable labeled

plastic or metal container. Ensure adequate ventilation.

Evacuation Procedures: Not Applicable Special Instructions: Not Applicable Reporting Requirements: Not Applicable

7. Handling and Storage

Handling Practices and Warnings: Product is intended for dental use only. Handling of this product should be by trained dental healthcare professionals only.

Observe normal care for working with chemicals.

Storage Practices and Warnings: Store only in the original package. Keep package tightly sealed. Store in a dry area. Store away from food and beverages.

Protect from heat and direct sunlight.

8. Exposure Control / Personal Protection

Individual Protection

Measures

Personal Protective Equipment for Normal Use Personal Protective Equipment for

Emergencies

Eye/Face Safety Glasses Not Applicable

Skin The glove material has to be impermeable and resistant to the product. Not Applicable

Inhalation Not Required Not Applicable

Body Protection Protective work clothing Not Applicable

Occupational Exposure Limits: Not Applicable Engineering Controls: Not Applicable

9. Physical and Chemical Characteristics

Appearance: Colorless or pale yellow liquid. Odor: Oil of cloves.

Normal Physical State: Liquid. Melting Point: -10°C (14°F)

Specific Gravity: 1.06 g/cm³ Solubility in Water: Insoluble pH: Not Applicable

Vapor Pressure (mm Hg): 0.009 Vapor Density (AIR=1): Not Applicable Evaporation Rate (Butyl Acetate =1): Not Applicable

Flashpoint Method: Not Applicable Flammable (Explosive) Limits in Air

LEL: Not Applicable UEL: Not Applicable

Autoignition Temperature: Not Applicable

Other: Not Applicable

10. Stability and Reactivity Data

Incompatibility (Materials to Avoid): Strong oxidizing agents.

Hazardous Products Produced During Decomposition: Forms carbon monoxide and/or carbon dioxide.

Hazardous Polymerization: May Occur May Not Occur Conditions to Avoid: None known

Stability? Stable Unstable Conditions to Avoid: None known

11. Toxicological Information

Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic Effects, Reproductive Effects, or Structure Activity Data:

The Oral LD₅₀ for Eugenol, in rats, is 1930mg/Kg.

Emergency Overview: Material may be mildly irritating to eyes.

Routes of

Exposure Signs and Symptoms

Single, Repeated, or

Lifetime Exposure

Severity (Mild,

Moderate, Severe)

Acute and Chronic Health

Effect(s) Target Organ(s)

Eye Material may cause slight

transient (temporary) irritation.

Single & Repeated Moderate Irritation and possible corneal

damage due to the fillers used in

the product.

Not Applicable

Skin Material may be an irritant after

repeated and prolonged exposure.

Repeated Mild Irritation or possible allergic

response.

Not Applicable

Inhalation Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable

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Ingestion Material is probably not harmful

if swallowed

Not Applicable Mild Not Applicable Not Applicable

Other Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable

Medical Conditions Aggravated by Exposure Open sores and wounds of the skin.

Carcinogenicity NTP?: Not listed IARC monographs?: Not listed OSHA regulated?: No All components of this product are in compliance with the inventory listing Requirements of the U. S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Potential Environmental Effects: Potential Environmental Effects Do not allow to enter sewers/ surface or ground water.

NFPA Hazard Classification Ratings (Scale 0-4), Health = 1, Fire = 1, Reactivity = 0

12. Ecological Information

Toxicity Data, Environmental Fate, Physical/Chemical Data, or other Data Supporting Environmental Hazard Statements: Water Hazard Class 1 (Selfassessment):

slightly hazardous for water. Do not allow product to reach ground water, water streams or sewage system.

13. Disposal Considerations

Regulations: Must not be disposed of together with household garbage. Dispose of material as solid waste in a closed container.

Dispose of in accordance with Federal, State and Local regulations

Properties (Physical/Chemical) Affecting Disposal: Dispose of material as solid waste in a closed container.

14. Transport Information

Regulated for Shipping: No. Not Regulated DOT Shipping Name: Not Regulated Packing Group: Not Applicable

Do Changes in Quantities, packaging, or shipment method change product classification? No

DOT Hazard Class: Not Applicable UN Number: Not Applicable

15. Regulatory Information

This product has been classified in accordance with the hazard criteria of the Globally Harmonized System of Classification and

Labeling of Chemicals and the SDS contains all of the information required by the Canadian Controlled Products Regulations.

U.S. Federal Regulations: CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements.

Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting

Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

U.S. State Regulations California Proposition 65: This product does not contain any chemicals, which are on the California

Proposition 65 list.

Canada WHMIS, Workplace Hazardous Materials Information System: This product is not a controlled product.

International Regulations: Canadian Environmental Protection Act: This product is a medical device and not subject to chemical notification requirements.

European Community Labeling: Not a dangerous preparation.

European Community Labeling: R22 Harmful if swallowed. S24/25 Avoid contact with skin and eyes. S36 Wear suitable protective clothing.

European Inventory of New and Existing Chemicals Substances (EINECS): This product is a medical device and not subject to chemical notification

requirements. CAS# Eugenol 97-53-0 EINECS: 202-589-1 Eugenol.

Other: Not Applicable

16. Other Information

To the best of our knowledge this product does not contain gluten, wheat grains, flaxseed, natural rubber, or natural latex.

All components are synthetically produced; none are derived from animal products.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific products

features and shall not establish a legally valid contractual relationship.

The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for

example due to accidents during transport or storage by the dealer. For quantities of material typically used in clinical practice,

information necessary for safe use and storage of the product is given in the DFU.

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