

DENTSPLY/International
DENTSPLY/Caulk
Material Safety Data Sheet

510899

| 1. Product and Company Identification | |
|--|--|
| Product Name ZOE B & T® LIQUID Zinc Oxide Eugenol Base and Temporary Filling Material | MSDS Code Number 510899 |
| Trade Name & Synonyms ZOE B & T® LIQUID Zinc Oxide Eugenol Base and Temporary Filling Material | Date of Last Revision 01/15/07 |
| Chemical Name N. A. | Manufacturer DENTSPLY/Caulk |
| C.A.S. Number N. A. | Address 38 West Clarke Avenue Milford DE 19963-1805 http://www.caulk.com |
| Grades or Minor Variant Identities N. A. | Information Telephone Number (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time) |
| Product Use (for Canada) N. A. | Emergency Telephone Number (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time) |

| 2. Composition Of Ingredients | | | |
|--------------------------------------|---------------|----------------------|-----------|
| Hazardous Components | C.A.S. Number | Exposure Limits | % |
| Eugenol | 99-53-0 | 10 mg/M ³ | > 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 | Mild | Not Applicable | Not Applicable |
| Skin | Material may be an irritant after repeated and prolonged exposure. | Repeated | Mild | Not Applicable | 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. | | | | | |
| NFPA Hazard Classification Ratings (Scale 0-4), Health = 1, Fire = 1, Reactivity = 0 | | | | | |

| 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 |
| 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.

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DENTSPLY/Caulk
Material Safety Data Sheet

| 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: CO ₂ , 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 | | | |
|---|--|--|---------------------------------------|
| Ventilation: None required during normal intended use of this product | Other Engineering Controls: Not Applicable | | |
| Routes of Entry | Personal Protective Equipment (PPE) for Normal Use | | |
| Eye/Face | Safety Glasses | | PPE for Emergencies 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 |
| General Hygiene Considerations and Work Practices: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at end of work. Avoid contact with the eyes and skin. | | | |
| Protective Measures During Repair and Maintenance of Contaminated Equipment: Not Applicable | | | |
| Other Protective Measures and Equipment: 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/cm ³ | 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 |
| 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: <input type="checkbox"/> May Occur <input checked="" type="checkbox"/> May Not Occur | | Conditions to Avoid: None known | |
| Stability? <input checked="" type="checkbox"/> Stable <input type="checkbox"/> 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 LD ₅₀ for Eugenol, in rats, is 1930mg/Kg. | | | |

| 12. Ecological Information | | | |
|--|--|--|--|
| Toxicity Data, Environmental Fate, Physical/Chemical Data, or other Data Supporting Environmental Hazard Statements: Water Hazard Class 1 (Self-assessment): slightly hazardous for water. Do not allow product to reach ground water, water streams or sewage system. | | | |

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13. Disposal Considerations

Regulations: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Dispose of in accordance with Federal, State and Local regulations.

Properties (Physical/Chemical) Affecting Disposal: Dispose of in accordance with Federal, State and Local regulations.

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

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: N. A.

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.