1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name          Tenure Adhesive, Part B

Other means of identification

UN-Number            UN1993

Synonyms             None

Recommended use of the chemical and restrictions on use

Recommended Use      Dental bonding agent

Uses advised against  No information available

Supplier's details

Supplier Address      DenMat
                      1017 W. Central Ave.
                      Lompoc, CA 93436
                      TEL: 805-346-3700

Emergency telephone number

Emergency Telephone      805-346-3700
Number

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious Eye Damage/Eye Irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Skin Sensitization</td>
<td>Category 1</td>
</tr>
<tr>
<td>Specific Target Organ Systemic Toxicity (Single Exposure)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Flammable liquids</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word          Danger
Hazard Statements

Signal Word          Hazard Statements
• Causes serious eye irritation
• May cause drowsiness or dizziness
• Highly flammable liquid and vapor.
Precautionary Statements

Prevention
- Wash face, hands and any exposed skin thoroughly after handling.
- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Use only outdoors or in a well-ventilated area.
- Keep away from heat/sparks/open flames/hot surfaces - No smoking.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Keep cool

General Advice
None

Eyes
- IF IN EYES: Rinse Cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- IF eye irritation persists: Get medical advice/attention

Skin
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Inhalation
- If INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Call a POISON CENTER or doctor/physician if you feel unwell

Fire
- In case of fire: Use CO2, dry chemical, or foam for extinction

Storage
- Store in a well-ventilated place. Keep container tightly closed.
- Store locked up.

Disposal
- Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)
Not applicable

Other information
Aspiration hazard if swallowed - can enter lungs and cause damage Harmful to aquatic life

<5% of the mixture consists of ingredient(s) of unknown toxicity.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Trade secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>80-90</td>
<td>*</td>
</tr>
<tr>
<td>Bis[2-[(2-methyl-1-oxoallyl)oxy]ethyl] dihydrogen benzene-1,2,4,5-tetracarboxylate</td>
<td>51156-91-3</td>
<td>10-15</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

**Description of necessary first-aid measures**

**Eye Contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Consult a physician.

**Skin Contact**
Wash off with warm water and soap. Consult a physician if necessary.

**Inhalation**
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing If not breathing, give artificial respiration. Seek immediate medical attention/advice.

**Ingestion**
Do NOT induce vomiting. Aspiration hazard if swallowed - can enter lungs and cause damage. Call a physician or Poison Control Center immediately.

**Most important symptoms/effects, acute and delayed**
Dizziness. Drowsiness.

**Indication of immediate medical attention and special treatment needed, if necessary**
Condition of the patient should be carefully monitored. Aspiration of this product during induced emesis can result in lung injury. If evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a Poison Control Center for additional treatment information.

5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**
CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific Hazards Arising from the Chemical**
Extremely flammable.

**Explosion Data**
Sensitivity to Mechanical Impact: None.
Sensitivity to Static Discharge: Yes.

**Protective Equipment and Precautions for Firefighters**
Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions**
Ensure adequate ventilation. Avoid breathing vapors or mists. Remove all sources of ignition. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

**Environmental Precautions**
Tenure Adhesive Part B

Environmental Precautions
Avoid release to the environment. Dispose of contents/container to an approved waste disposal plant. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for Containment
Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up
Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling
Ensure adequate ventilation. Avoid breathing vapors. Keep away from open flames, hot surfaces and sources of ignition. Ground and bond all lines and equipment associated with product system. All equipment should be non-sparking and explosion proof. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities

Storage
Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Products
Strong acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone 67-64-1</td>
<td>STEL: 750 ppm TWA: 500 ppm</td>
<td>TWA: 1000 ppm TWA: 2400 mg/m³</td>
<td>IDLH: 2500 ppm 10% LEL TWA: 250 ppm TWA: 590 mg/m³</td>
</tr>
<tr>
<td>Bis[2-[(2-methyl-1-oxoallyl)oxy]ethyl] dihydrogen benzene-1,2,4,5-tetracarboxylate 51156-91-3</td>
<td>N/D</td>
<td>N/D</td>
<td>N/D</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Measures
Showers Eyewash stations Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection
Safety glasses with side-shields. Tightly fitting safety goggles.

Skin and Body Protection
Long sleeved clothing. Impervious gloves.
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Respiratory Protection

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.
### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks/ - Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Aromatic solvent/acetone</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear to light yellow.</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</td>
<td>None known</td>
</tr>
<tr>
<td>Melting Point/Range Boiling</td>
<td>Not determined</td>
<td>None known</td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>55 - 60 °C</td>
<td>None known</td>
</tr>
<tr>
<td>Flash Point</td>
<td>-17 °C</td>
<td>For acetone</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>upper flammability limit</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>lower flammability limit</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.7 - 0.8 @ 25°C</td>
<td>None known</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>soluble</td>
<td>None known</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>100% soluble in acetone and ethanol</td>
<td>None known</td>
</tr>
</tbody>
</table>

**Information on basic physical and chemical properties**

- Partition coefficient: n-octanol/water: No data available
- Autoignition Temperature: No data available
- Decomposition Temperature: No data available
- Viscosity: Similar to water
- Flammable Properties: Not flammable
- Explosive Properties: No data available
- Oxidizing Properties: No data available
- Other information:
  - VOC Content (%): 82%

### 10. STABILITY AND REACTIVITY

**Reactivity**

No dangerous reaction known under conditions of normal use.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

Ignitions sources - heat, sparks and open flames.

**Incompatible materials**

Strong acids. Strong oxidizing agents.

**Hazardous decomposition products**

None known based on information supplied.
11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information
The product itself has not been tested. Data is for major component in product.

Inhalation
May cause drowsiness and dizziness based on components. May cause irritation of respiratory tract.

Eye Contact
Irritating to eyes.

Skin Contact
May cause skin irritation and/or dermatitis.

Ingestion
Potential for aspiration if swallowed. Vomiting may aspirate into lungs and cause chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms
May cause drowsiness and dizziness. Eye contact with liquid may cause irritation including stinging, burning, tearing, or reddening of the eyes.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization
No information available.

Mutagenic Effects
No information available.

Carcinogenicity
Ethanol has been shown to be carcinogenic in long-term studies only when consumed and abused as an alcoholic beverage.

Reproductive Toxicity
No information available.

STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Target Organ Effects
Eyes. Respiratory system.

Aspiration Hazard
Based on product level data, this product does not meet the requirement to be classified as an aspiration hazard. However, this product contains an ingredient that may cause aspiration if swallowed.

Numerical measures of toxicity - Product

Acute Toxicity
<5% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral
7200 mg/kg; Acute toxicity estimate

Inhalation
dust/mist
1520.7 mg/L; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity
The environmental impact of this product has not been fully investigated.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Daphnia Magna (Water Flea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone 67-64-1</td>
<td>LC50 96 h: 4.74 - 6.33 mL/L (Oncorhynchus mykiss) LC50 96 h: 6210 – 8120 mg/L static (Pimephales promelas) LC50 96 h: = 8300 mg/L (Lepomis macrochirus)</td>
<td>EC50 = 14500 mg/L 15 min</td>
<td>EC50 48 h: 10294 - 17704 mg/L Static (Daphnia magna) EC50 48 h: 12600 - 12700 mg/L (Daphnia magna)</td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability
No information available.

Bioaccumulation
No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>-0.24</td>
</tr>
</tbody>
</table>

Other Adverse Effects
No information available.
13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

Do not re-use empty containers.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>RCRA</th>
<th>RCRA - Basis for Listing</th>
<th>RCRA - D Series Wastes</th>
<th>RCRA - U Series Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone - 67-64-1</td>
<td></td>
<td>Included in waste stream: F039</td>
<td></td>
<td>U002</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

UN-Number    UN1993
Proper shipping name Flammable liquids, n.o.s.
Hazard Class  3
Packing Group II
Description  UN1993, Flammable liquids, n.o.s. (Acetone), 3, II

Emergency Response Guide Number

128

TDG

UN-Number    UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Hazard Class  3
Packing Group II
Description  UN1993, Flammable liquid, n.o.s. (Acetone), 3, II

MEX

UN-Number    UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Hazard Class  3
Packing Group II
Description  UN1993, Flammable liquid, n.o.s. (Acetone), 3, II

IATA

UN-Number    UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Hazard Class  3
Packing Group II
ERG Code      3H
Description  UN1993, Flammable liquid, n.o.s. (Acetone), 3, II

IMDG/IMO

UN-Number    UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Hazard Class  3
Packing Group II

EmS No. F-E, S-E
Description  UN1993, Flammable liquid, n.o.s. (Acetone), 3, II, (-20°C c.c.)
15. REGULATORY INFORMATION

International Inventories
TSCA
All components of this product are either listed or are exempt on the TSCA inventory.

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Hazard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>Extremely Hazardous Substances RQs</th>
<th>RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>5000 lb</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

U.S. State Regulations

California Proposition 65
Ethyl alcohol is only considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

WARNING: Cancer and Reproductive Harm.
www.P65Warnings.ca.gov

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable
## 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

Issuing Date 29 October 2021
Revision Date 29 October 2021

**General Disclaimer**  
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet