Safety Data Sheet

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

1.1 Product Identifier:
Trade Name (as labeled): Anestadent™4% w/v and 1:100,000 solution for injection
Articaine hydrochloride / Adrenaline (Epinephrine) tartrate
Part/Item Number: 546

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:
Recommended Use: Local anesthetic solution for dental use.
Restrictions on Use: For Professional Use Only

1.3 Details of the Supplier of the Safety Data Sheet:
Manufacturer/Supplier Name: DENTSPLY Pharmaceutical
Manufacturer/Supplier Address: 1301 Smile Way
York, PA 17404
Manufacturer/Supplier Telephone Number: 1-800-989-8825
Email address: DS-Pharma@dentsplysirona.com

1.4 Emergency Telephone Number:
Emergency Contact Telephone Number: 800-424-9300 Chemtrec

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture:

<table>
<thead>
<tr>
<th>GHS Classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
</tr>
<tr>
<td>Not Hazardous</td>
</tr>
</tbody>
</table>

2.2 Label Elements:
None Required
Signal Word: None
Hazard Phrases  | Precautionary Phrases  
---|---  
None Required  | None Required  

2.3 Other Hazards: None known.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Mixture:

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>C.A.S. #</th>
<th>EINECS # / REACH Registration #</th>
<th>Classification</th>
<th>WT %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articaine hydrochloride</td>
<td>23964-57-0</td>
<td>245-957-7</td>
<td>Acute Tox. 4 (H302) Aquatic Chronic 3 (H412)</td>
<td>4</td>
</tr>
<tr>
<td>Epinephrine Bitartrate</td>
<td>51-42-3</td>
<td>200-097-1</td>
<td>Acute Tox. 2 (H300, H310, H330) Aquatic Chronic 3 (H412)</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Sodium Metabisulfite</td>
<td>7681-57-4</td>
<td>231-673-0</td>
<td>Acute Tox. 4 (H302) Eye Dam. 1 (H318) EUH031</td>
<td>&lt;0.1</td>
</tr>
</tbody>
</table>

The exact concentration is being withheld as a trade secret. Refer to Section 16 for the full text of the GHS Classifications.

### 4. FIRST AID MEASURES

#### 4.1 Description of First Aid Measures:

**Eye**
If necessary, remove victim’s contact lenses. Flush victim's eyes with large quantities of water, while holding the eyelids apart. Get medical attention if irritation develops or persists.

**Skin**
Flush thoroughly with water. Remove and launder contaminated clothing before re-use.

**Inhalation**
None needed under normal use conditions. If irritation develops, remove to fresh air. Get medical attention if symptoms persist.

**Ingestion**
Rinse mouth with water and give 1 glass of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if discomfort persists.

#### 4.2 Most Important Symptoms and Effects, Both Acute and Delayed:

May cause slight eye and skin irritation. Contact with skin, eyes or mucous membranes may cause numbness. May cause allergic reactions if inhaled or swallowed by some asthmatics and other ‘sulfite sensitive’ individuals.

#### 4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed:

Immediate medical attention should not be required. The safety and effectiveness of local anesthetics depend upon proper dosage, correct technique, adequate precautions and readiness for emergencies.

### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing Media:
Use media appropriate for the surrounding fire.

#### 5.2 Special Hazards Arising from the Substance or Mixture:
5.3 Advice for Fire-Fighters:

| Fire Fighting Procedures/Precautions for Fire Fighters: | Cool fire exposed containers and structures with water. Firefighters should wear full emergency equipment and approved positive pressure self-contained breathing apparatus. Do not enter fire area without proper protection. |

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:
Avoid contact with eyes, skin and clothing. Wear protective clothing and equipment as described in Section 8.

6.2 Environmental Precautions:
Report releases as required by local and national authorities.

6.3 Methods and Material for Containment and Cleaning up:
Contain and collect using an inert absorbent material and place in appropriate containers for disposal. Clean spill site with water.

6.4 Reference to Other Sections:
Refer to Section 8 for Personal Protective Equipment and Section 13 for Disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling:
Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling. Use in accordance with package instructions.

7.2 Conditions for Safe Storage, Including Any Incompatibilities: Store in accordance with label recommendations.

7.3 Specific End Use(s): For professional use only.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

<table>
<thead>
<tr>
<th>Occupational Exposure Limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-hazardous Ingredients</td>
</tr>
<tr>
<td>Articaine hydrochloride</td>
</tr>
<tr>
<td>Epinephrine Bitartrate</td>
</tr>
<tr>
<td>Sodium Metabisulfite</td>
</tr>
</tbody>
</table>
5 mg/m³ TWA UK WEL
5 mg/m³ Belgium OEL

**Biological Exposure Limits:** None Established

### 8.2 Exposure Controls:

**Appropriate Engineering Controls:** No special controls required.

**Individual Protection Measures (PPE):**

- **Specific Eye/face Protection:** Follow facility requirements. Wear safety glasses when the possibility exists for eye contact due to splashing or spraying material. In Europe follow EN 166.
- **Specific Skin Protection:** Follow facility requirements. Wear impervious gloves to prevent skin contact. In Europe follow EN 374.
- **Specific Respiratory Protection:** Follow facility requirements.
- **Specific Thermal Hazards:** None required.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on Basic Physical and Chemical Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear, colorless liquid</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>LEL: Not applicable</td>
</tr>
<tr>
<td></td>
<td>UEL: Not applicable</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Vapor pressure (mmHg)</td>
<td>Not available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Aqueous solution</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not an oxidizer</td>
</tr>
</tbody>
</table>

### 9.2 Other Information:

None available

## 10. STABILITY AND REACTIVITY
10.1 Reactivity: Non-reactive.

10.2 Chemical Stability: Stable under normal storage and handling conditions.

10.3 Possibility of Hazardous Reactions: None known.

10.4 Conditions to Avoid: Avoid high temperatures. Protect from light. Do not freeze this product. Do not use if solution is pinkish or darker than slightly yellow or if it contains a precipitate.

10.5 Incompatible materials: Avoid contact with water-reactive materials and strong reducing agents.

10.6 Hazardous Decomposition Products: Thermal decomposition may produce carbon, nitrogen and sulfur; sodium, chlorine and hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Potential Health Effects:
Eyes: Liquid can cause slight irritation with tears and blurred vision. Numbness may occur.
Skin: Direct skin contact may cause slight skin irritation and numbness.
Ingestion: Swallowing may cause gastrointestinal irritation. Numbness may occur.
Inhalation: None expected from normal use. May cause slight respiratory tract irritation with coughing and anesthetic effects.

Chronic Health Effects: May cause hypersensitivity. Exposure to sodium metabisulfite may cause allergic reactions in some asthmatics and sulfite sensitive individuals.

Irritation: No data available. This product is not expected to cause eye irritation.

Corrosivity: No data available. This product is not expected to be corrosive.

Sensitization: Sodium metabisulfite: In rare cases, may cause allergic reactions and asthma in some asthmatics and sulfite sensitive individuals. Reactions can include anaphylactic symptoms and life-threatening or less severe asthmatic episodes.

Carcinogenicity: None of the components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH or the EU CLP.

Mutagenicity: Articaine Hydrochloride: Five standard mutagenicity tests, including three in vitro tests (the nonmammalian Ames test, the mammalian Chinese hamster ovary chromosomal aberration test, and a mammalian gene mutation test with articaine HCl) and two in vivo mouse micronucleus tests (one with articaine and epinephrine 1:100,000 and one with articaine HCl alone) showed no mutagenic effects. This product is not expected to cause mutagenic activity.

Aspiration Hazard: Not an aspiration hazard.

Acute Toxicity Data:
Articaine hydrochloride: Oral rat LD50- 978 mg/kg
Epinephrine Bitartrate: Oral mouse LD50- 4 mg/kg
Sodium Metabisulfite: Oral rat LD50- 1131-3200 mg/kg

Reproductive Toxicity Data: Articaine hydrochloride: Safe use of articaine hydrochloride in pregnant women has not been established, however, animal studies have not demonstrated teratogenic or embryotoxic effects. No effects on male or female fertility were observed in rats for epinephrine 1:100,000 administered subcutaneously in doses up to 80 mg/kg/day (approximately 2 times the MRHD based on body surface area). This product is not expected to cause reproductive or developmental toxicity.
Specific Target Organ Toxicity Single Exposure (STOT-SE): No data available.

Specific Target Organ Toxicity Repeated Exposure (STOT-RE): No data available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity: Sodium Metabisulfite: 96 hr. LC50 Fish- 32 mg/L, 48hr EC50 Daphnia- 89 mg/L, 72 hr. EC50 Algae- 48 mg/L

12.2 Persistence and Degradability: No data available.

12.3 Bio-accumulative Potential: No data available.

12.4 Mobility in Soil: No data available.

12.5 Results of PBT and vPvB Assessment: No data is currently available.

12.6 Other Adverse Effects: No data is currently available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Waste Treatment Recommendations: Treat in accordance with national and local regulations.

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>DOT</th>
<th>14.1 UN Number</th>
<th>14.2 UN Proper Shipping Name</th>
<th>14.3 Hazard Class(s)</th>
<th>14.4 Packing Group</th>
<th>14.5 Environmental Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR/RID</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>IMDG</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

14.6 Special Precautions for User: Not applicable.

14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture:

U.S. Federal Regulations
Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): This product is not subject to reporting under CERCLA. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

Toxic Substances Control Act (TSCA): This product is a pharmaceutical drug and not subject to chemical notification requirements.

Clean Water Act (CWA): This material is not regulated under the Clean Water Act.

Clean Air Act (CAA): This material is not regulated under the Clean Air Act.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:


This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372): None

State Regulations

California: This product does not contain substances known to the state of California to cause cancer and/or reproductive toxicity.

International Regulations

Canadian Environmental Protection Act: This product is a pharmaceutical drug and not subject to chemical notification requirements.

European Inventory of Existing Chemicals (EINECS): This product is a pharmaceutical drug and not subject to chemical notification requirements.

EU REACH: This product is a pharmaceutical drug and not subject to chemical notification requirements.

Australian Inventory of Chemical Substances: This product is a pharmaceutical drug and not subject to chemical notification requirements.

China Inventory of Existing Chemicals and Chemical Substances: This product is a pharmaceutical drug and not subject to chemical notification requirements.

Japanese Existing and New Chemical Substances: This product is a pharmaceutical drug and not subject to chemical notification requirements.

Korean Existing Chemicals List: This product is a pharmaceutical drug and not subject to chemical notification requirements.

Philippine Inventory of Chemicals and Chemical Substances: This product is a pharmaceutical drug and not subject to chemical notification requirements.

15.2 Chemical Safety Assessment: None required.

16. OTHER INFORMATION

HMIS Hazard Rating:
Health –1 Flammability – 0 Physical Hazard– 0

Full text of Classification abbreviations used in Section 2 and 3:
Acute Tox. 2 Acute Toxicity Category 2
Acute Tox. 4 Acute Toxicity Category 4
Aquatic Chronic 3 Aquatic Chronic Toxicity Category 3
Eye Dam. 1 Eye Damage Category 1
H300 Fatal if swallowed.
H302 Harmful if swallowed.
H310 Fatal in contact with skin.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H412 Harmful to aquatic life with long lasting effects.
EUH031 Contact with acids liberates toxic gas.

Supersedes: 15FEB2019
Date Updated: 13AUG2019
Revision Summary: Product name changed to approved name

Data Sources: US NLM ChemID Plus and HSDB, Substance SDS for components, ECHA REACH Registration Website, Country websites for occupational exposure limits.