



## MATERIAL SAFETY DATA SHEET

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### Product: TOPAMINE

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**Product Code:**

DL160.9-1 TOPAMINE – Silver Diamine Fluoride Complex

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### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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**Product Name: TOPAMINE (Silver Diamine Fluoride Complex)**

**Uses/Application:** For relief of dentinal hypersensitivity. For professional dental use only.

**Manufacturer / Supplier (Name, address, and info phone number)**

PharmaDesign Co., Ltd. (a division of Dentalife Australia Pty Ltd)  
199/3 Moo 21 Bangpleeyai, Bangplee  
Samutprakarn 10540 Thailand

**Telephone:** 02 107 1050 International: +66 (0)2 107 1050

**Fax Number:** 02 107 1052 International: +66 (0)2 107 1052

**Email:** admin@dentalife.com.au

**Poisons Information Centre:** (24 hour, 7 days a week) in an emergency: +66 2547 0100

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### 2. HAZARD IDENTIFICATION

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**2.1 Classification:** Corrosive to metal 1, Skin Corrosive 1B, Eye Damage 1, STOT RE 1

**2.2 TSCA:** Unknown

**2.3 SARA Codes:** 34445-07-3

**2.4 Hazard Statement:** H290: May be corrosive to metals.  
H214: Causes severe skin burns and eye damage.  
H318: Causes severe eye damage.  
H335: May cause respiratory irritation.  
H372: Causes damage to organs (bone, teeth) through prolonged or repeated exposure.

**2.5 Precautionary Statements:** P260: Do not breathe dust/fume/gas/mist/vapor/spray  
P264: Wash hands thoroughly after handling  
P270: Do not eat, drink or smoke while handling this product.  
P272: Contaminated work clothing should not be allowed out of the work area.  
P273: Avoid release to the environment.

**2.6 Response Statements:** P280: Wear protective gloves/clothing/face/eye protection.  
P303 & P361: If on skin or hair, Remove contaminated clothing, rinse with water/shower.  
P304 & P340: If inhaled, move victim to fresh air in a resting position comfortable for breathing.  
P305, P351 & P338: If in eyes, remove contact lenses (if present) rinse with water for several minutes.  
P309, P311 & P314: If exposed and you feel unwell, call poison control and seek medical attention immediately.



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P363: Wash contaminated clothing before re-use. P390: Absorb spills to prevent damage.

### 2.6 Storage & Disposal Statements:

P405: Store in a locked location.  
P460: Store in a corrosive resistant container with resistant inner liner  
P501: Dispose of contents/container in accordance with local/regional/national regulations.

### 2.7 Safety Phrases:

S7 Keep container tightly closed.  
S24 Avoid contact with skin  
S37 Wear suitable gloves

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

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| <u>Composition</u>       | <u>CAS No.</u> | <u>Proportion %</u> |
|--------------------------|----------------|---------------------|
| Ag (NH <sub>3</sub> ) 2F | 34445-07-3     | 36 to 40%           |
| Silver ion (soluble)     | -              | 24 to 27%           |
| Other                    | -              | < 0.02%             |
| Water                    | 7732-18-5      | to 100 %            |

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## 4. FIRST AID MEASURES

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- Eye:** Rinse open eyes with running water for 15 minutes. Seek medical attention immediately.
- Skin:** Remove clothing that has contacted product. Wash exposed area immediately with running water. Calcium containing gel (KY jelly and 10% Calcium Gluconic Acid) may be applied to the area.
- Inhalation:** Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. If signs/symptoms develop, get medical attention. Move victim to fresh air, loosen tight clothing, provide oxygen if difficulty breathing.
- Prolonged or repeated exposure may cause:  
Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure. May be absorbed following inhalation and cause target organ effects.
- If Swallowed:** Do not induce vomiting, give victim 100-200 ml of milk water. Never give anything by mouth to an unconscious person. Get immediate medical attention. May be harmful if swallowed.  
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.
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## 5. FIRE FIGHTING MEASURES

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- 5.1 Suitable extinguishing media:** This material is not flammable. Small fire, use powder, carbon dioxide, or water shower. Large fire use water



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- shower, water mist or foam extinguisher. May produce irritating, corrosive or toxic fumes.
- 5.2 Unusual fire and explosion hazards:** Contact with reactive metals may produce flammable hydrogen gas. Firefighters should use protective masks for acidic gasses.
- 5.3 Special protective equipment:** Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Cover, but do not seal for 48 hours. Recover any material possible into a closed container. Wear protective gloves, mask, boots, goggles and other materials for splash prevention.

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### 6. ACCIDENTAL RELEASE MEASURES

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- 6.1 Personal precautions:** Wear protective gloves, mask, boots, goggles and other materials for splash prevention
- 6.2 Environmental precautions:** For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Place in a metal, LDPE or HDPE container approved for use in transportation by appropriate authorities. If other material, the container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene. Do not allow product to reach sewers and rivers.
- 6.3 Methods and materials for containment and cleaning up:** Observe precautions from other sections. Determine if spill qualifies for local, state or federal reporting

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### 7. HANDLING AND STORAGE

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- 7.1 Precautions for Safe Handling:**  
Avoid breathing of vapours, mists or spray. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits. If ventilation is not adequate, use respiratory protection equipment. Avoid eye and skin contact. Wash hands after handling and before eating
- 7.2 Conditions for Safe Storage, Including Any Incompatibilities:**  
Store in a dark, cool, dry place away from acids, alkaline materials, heat, and bleach. Store containers in a controlled, secure environment and do not agitate drop, drag or otherwise damage containers. Keep out of reach of children. Do not ingest. Avoid eye contact and contamination of food. Use according to directions on direct container.

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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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- 8.1 National Exposure Standards:** Occupational Safety & Health Administration (OHSA)  
**Exposure Guidelines**  
Occupational Safety & Health Administration (OHSA) exposure standards for Silver Diamine Fluoride are:



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| Ingredient              | Authority | Type       | Limit                 |
|-------------------------|-----------|------------|-----------------------|
| Silver Diamine Fluoride | OSHA      | STEL, as F | 2 ppm                 |
| Silver Diamine Fluoride | OSHA      | TWA, as F  | 0.5 ppm               |
| FLUORIDES               | OSHA      | TWA, as F  | 2.5 mg/m <sup>3</sup> |

**8.2 Biological Limit Values:**

No biological limit allocated.

**8.3 Engineering Controls:**

Use with appropriate local exhaust ventilation, or in a well-ventilated area.

**8.4 Personal Protective Equipment:**

**Eye/Face/Body Protection:** Avoid eye contact. The following eye protection is recommended: Safety Glasses, gloves, apron/smock/scrubs.

**Skin Protection:** Avoid prolonged or repeated skin contact.

**Respiratory Protection:** Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection. Avoid breathing vapours, mists or spray.

**Prevention of Swallowing:** Do not ingest. Wash hands after handling and before eating.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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|                                 |                                 |
|---------------------------------|---------------------------------|
| Odour, Color, Grade             | Clear liquid with ammonia smell |
| Physical Form                   | Liquid                          |
| Auto-ignition temperature       | Non-flammable                   |
| Flash Point                     | Non-flammable                   |
| Flammable Limits(LEL)           | Non-flammable                   |
| Flammable Limits(UEL)           | Non-flammable                   |
| Boiling Point                   | No data available               |
| Density                         | No data available               |
| Vapour Density                  | No data available               |
| Vapour Pressure                 | No data available               |
| Specific Gravity                | 1.35                            |
| pH                              | No data available               |
| Melting point                   | Not applicable                  |
| Solubility in water             | Soluble                         |
| Also soluble in                 | No data available               |
| Evaporation rate                | No data available               |
| Know – Oct/Water partition coef | Not applicable                  |
| Viscosity                       | No data available               |



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### 10. STABILITY AND REACTIVITY

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| <b>10.1 Reactivity:</b>  | No hazardous reaction known when used according to instructions.  |                  |                  |                        |                                 |              |                        |                   |              |
|--|---|------------------|------------------|------------------------|---------------------------------|--------------|------------------------|-------------------|--------------|
| <b>10.2 Chemical Stability:</b>                                      | Stable under recommended storage and handling conditions.   |                  |                  |                        |                                 |              |                        |                   |              |
| <b>10.3 Conditions to Avoid:</b>                                     | <b>Heat</b>   |                  |                  |                        |                                 |              |                        |                   |              |
| <b>10.4 Incompatible Materials and Possible Hazardous Reactions:</b> | Acids, Metals, Glass. Causes erosion of glass and metals.   |                  |                  |                        |                                 |              |                        |                   |              |
| <b>10.5 Hazardous Decomposition Products:</b>                        | <table><thead><tr><th><b>Substance</b></th><th><b>Condition</b></th></tr></thead><tbody><tr><td>Silicone tetrafluoride</td><td>With contact to glass or silica</td></tr><tr><td>Hydrogen gas</td><td>With contact to metals</td></tr><tr><td>Hydrogen Fluoride</td><td>With heating</td></tr></tbody></table> | <b>Substance</b> | <b>Condition</b> | Silicone tetrafluoride | With contact to glass or silica | Hydrogen gas | With contact to metals | Hydrogen Fluoride | With heating |
| <b>Substance</b>   | <b>Condition</b>  |                  |                  |                        |                                 |              |                        |                   |              |
| Silicone tetrafluoride   | With contact to glass or silica   |                  |                  |                        |                                 |              |                        |                   |              |
| Hydrogen gas   | With contact to metals  |                  |                  |                        |                                 |              |                        |                   |              |
| Hydrogen Fluoride  | With heating  |                  |                  |                        |                                 |              |                        |                   |              |
| <b>10.6 Hazardous Polymerisation:</b>                                | Hazardous polymerization will not occur.  |                  |                  |                        |                                 |              |                        |                   |              |

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### 11. TOXICOLOGICAL INFORMATION

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|-------------------------------|--|
| <b>Hazardous ingredients:</b> | As for SODIUM FLUORIDE<br>ORL MUS LD50 57 mg/kg<br>ORL RAT LD50 52 mg/kg<br>SCU RAT LD50 175 mg/kg |
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### 12. ECOLOGICAL INFORMATION

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|--|---|
| <b>12.1 Ecotoxicity:</b>                   | Not Determined                            |
| <b>12.2 Chemical Fate:</b>                 | Not Determined                            |
| <b>12.3 Physical:</b>                      | No information available                  |
| <b>12.4 Other:</b>                         | No information available                  |
| <b>12.5 Mobility:</b>                      | Readily absorbed into air, water and soil |
| <b>12.6 Persistence and degradability:</b> | No data                                   |
| <b>12.7 Bio accumulative potential:</b>    | No bioaccumulation data                   |

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### 13. DISPOSAL CONSIDERATIONS

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|   |   |
|---|---|
| <b>13.1 Disposal Method:</b>                    | Neutralize with slurry of calcium hydroxide (monitor heat generation) and pH of supernatant solution should range from 5.8-8.6. Monitor F and N content before disposal. Follow local, regional, state and national guidelines. |
| <b>13.2 Disposal of Contaminated Packaging:</b> | Recycle /reconditioned at an approved facility.   |
| <b>13.3 Environmental Regulations:</b>          | Not relevant.   |



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### 14. TRANSPORT INFORMATION

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|                |                |                         |                |
|----------------|----------------|-------------------------|----------------|
| U.N. Number :  | Not Applicable | Dangerous Goods Class : | Not Applicable |
| Hazchem Code : | Not Applicable | Subsidiary Risk :       | Not Applicable |
| CAS Number :   | 34445-07-3     | Pack. Group:            | Not Applicable |

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### 15. REGULATORY INFORMATION

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15.1 SUSMP Poisons Schedule: NA

15.2 Prohibition / Licensing Requirements: N/A

15.3 Thai FDA as registered Manufacturing License number 15/2558

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### 16. OTHER INFORMATION

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Product is considered safe if used as intended.  
Product is intended for professional dental use only.

**This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. No warranty, either expressed or implied, is made with respect to the information or the product to which the information refers. Each user must review this MSDS in the context of how the product will be handled and used in the workplace.**

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