PRODUCT ID: LIDOCAINE HYDROCHLORIDE AND EPINEPHRINE INJECTION

| SECTION 1: | PRODUCT AND COMPANY IDENTIFICATION |
|---------------|----------------------------------------------------------------|
| | |
| Product Name: | Lidocaine hydrochloride 2% and Epinephrine 1:50,000 Injection |
| | Lidocaine hydrochloride 2% and Epinephrine 1:100,000 Injection |
| Brand Name: | OCTOCAINE® 50 (Lidocaine Hydrochloride 2% and Eninephrine 1:50 |

| Lidocaine hydrochloride 2% and Epinephrine 1:100,000 Injection |
|-------------------------------------------------------------------------------------------------------|
| OCTOCAINE® 50 (Lidocaine Hydrochloride 2% and Epinephrine 1:50, 000 Injection) |
| LIGNOSPAN® FORTE (Lidocaine Hydrochloride 2% and Epinephrine 1:50, 000 Injection) |
| OCTOCAINE® 100 (Lidocaine Hydrochloride 2% and Epinephrine 1:100, 000 Injection) |
| LIGNOSPAN® STANDARD (Lidocaine Hydrochloride 2% and Epinephrine 1:100, 000 Injection) |
| Septodont 25 Wolseley Court Cambridge, Ontario, Canada N1R 6X3 519-623-4800 http://www.septodont.com/ |
| Septodont in conjunction with a third party consultant |
| (519) 623-4800 (Monday-Friday 08:30 to 16:30 EST) |
| Local anesthetic solution for use in peripheral nerve blocks |
| July 11, 2016 |
| |

| SECTION 2: | HAZARDS IDENTIFICATION |
|------------|------------------------|
| | |

| Classification: | This product is exempt from WHMIS 2015 as a drug product. Information provided is for worker education and training purposes. |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Equivalent Class: Specific Target Organ Toxicity – Single Exposure: Narcotic effects, Category 3 |
| Equivalent GHS Label Symbol: | <u>!</u> |
| Hazard Statements: | Warning |
| | H336 - May cause drowsiness or dizziness |
| | May cause skin and/or eye irritation |
| | Causes central nervous system effects such as drowsiness, confusion, excitability and nervousness. Acts as a depressant on the cardiovascular system. |
| | Avoid use in individuals with hypersensitivities to amide-type anesthetics. Use with caution in individuals with diabetes and/or severe hypertension. |

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| | CONSULT PRODUCT INSERT FOR CLINICAL AND PHARMACOPIAL INFORMATION Signs and Symptoms of Overexposure: Drowsiness, confusion, excitability, nervousness, drop in blood pressure, fatigue, bluish discoloration of fingernails, lips, or skin, difficulties in breathing. |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautionary Statements: | Prevention P261 – Do not breathe mist/vapours/spray P271 – Use in a well-ventilated area Response P304+P430 – If inhaled – remove victim to fresh air and keep at rest in a position comfortable for breathing P312 – Call a POISON CENTER or doctor/physician if you feel unwell Storage P405 – Store locked up Disposal P501 – Dispose of contents/container in accordance with local/provincial/federal regulations |

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Identity | Concentration (Percent weight/weight) | CAS Number |
|-------------------------|---------------------------------------|------------|
| Lidocaine Hydrochloride | 2 | 137-58-6 |
| Epinephrine Bitartrate | 0.001 - 0.002 | 51-42-3 |

| Inhalation: | Remove patient from exposure. |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Eye Contact: | Flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention, if irritation persists. |
| Skin Contact: | Remove contaminated clothing. Wash skin with soap and water |
| Ingestion: | Get immediate medical attention. Do not induce vomiting unless instructed to do so by poison control or physician. |
| Personal Protective Equipment for First Aid Responders: | Wear impermeable gloves to avoid skin contact (e.g. nitrile, natural rubber). |

| SECTION 5: FIRE FIGHTING MEASURES |
|-----------------------------------|
|-----------------------------------|

| Suitable extinguishing media: | Water spray, dry chemical, carbon dioxide, or foam as appropriate for surrounding fire and materials |
|--------------------------------|------------------------------------------------------------------------------------------------------|
| Hazardous Combustion Products: | Not available |

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| Special Protective Actions for | As with all fires, evacuate personnel to a safe area. Firefighters should |
|--------------------------------|---------------------------------------------------------------------------|
| Firefighters: | use self-contained breathing equipment and protective clothing. |

| Personal precautions: | Caution should be used to prevent against ingestion and contact with eyes. Wear safety glasses with side shields. |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental precautions: | Prevent spills from entering sewers and watercourses. Cover drains. |
| Methods and materials for containment and cleaning up: | Clean up spills with normal procedures used for non-hazardous liquids. This can include: absorb spill with inert material, then place in a chemical waste container. Clean surface thoroughly with water to remove residual contamination. |

SECTION 7: HANDLING AND STORAGE

| Handling Procedures and Equipment: | Caution should be used to prevent against ingestion and contact with eyes. |
|------------------------------------|----------------------------------------------------------------------------|
| | Handle with care to avoid breakage. |
| Storage Requirements: | Store in a cool, dry place. Avoid extremes in temperature. |
| Packaging: | USP Type 1 glass with rubber stopper and cap |
| Sensitivity to Mechanical Impact: | No |
| Sensitivity to Static Discharge: | No |

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

| Exposure Limits: | Chemical Agent | Оссі | upational Expo | osure Limits (0 | OEL) |
|------------------|----------------------------|---------------|------------------|------------------|---------------|
| | | AC | GIH ^a | Ont | ario |
| | | TWAb | STEL° | TWA ^b | STEL° |
| | Lidocaine Hydrochloride | Not available | Not available | Not available | Not available |
| | Epinephrine Bitartrate | Not available | Not available | Not available | Not available |

- a American Conference of Governmental Industrial Hygienists
- b Time Weighted Average

| c - Short-term Exposure Limit | |
|--------------------------------------|-----------------------|
| Personal Protective Equipment (PPE): | |
| Gloves (specify): | Not normally required |
| Respiratory (specify): | Not normally required |
| Eye (specify): | Not normally required |

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| Footwear (specify): | Not normally required |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Other Equipment (specify): | RESUSCITATIVE EQUIPMENT AND DRUGS SHOULD BE AVAILABLE DURING DENTAL PROCEDURES |
| Engineering Controls (e.g. ventilation, enclosed process, specify): | Not normally required |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| Physical State: | Liquid |
|-----------------------------------------|-----------------------------|
| Odour and Appearance: | Clear and odourless |
| Odour Threshold: | Not applicable |
| Specific Gravity (water=1): | 1 |
| Solubility in Water | Soluble |
| Co-efficient of Water/Oil Distribution: | Not available |
| Vapour Pressure: | 17 mm Hg @ 20°C |
| Boiling Point (°C): | 100°C |
| Melting/Freezing Point (°C): | 0°C |
| pH: | Not available |
| Vapour Density (Air=1): | 0.6 |
| Evaporation Rate (Butyl Acetate=1): | 1 |
| Flashpoint (°C) and Method: | Not flammable (water based) |
| Upper Flammable Limit (%): | Not available |
| Lower Flammable Limit (%): | Not available |
| Auto-ignition Temperature (°C): | Not available |
| Decomposition Temperature (°C): | Not available |

SECTION 10: STABILITY AND REACTIVITY

| Reactivity: | Stable |
|-----------------------------------|--------------------------------------------------------------|
| Chemical Stability: | Stable |
| Conditions to Avoid: | None |
| Incompatible Materials: | Incompatible with compounds which react violently with water |
| Hazardous Decomposition Products: | None |

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| SECTION 11: | TOXICOLOGICAL INFORMATION |
|-------------|---------------------------|
|-------------|---------------------------|

| Route of Entry: | ⊠ Skin Contact ⊠ Skin Absorption ⊠ Eye Contact ⊠ Inhalation ⊠ Ingestion |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute Toxicity: | Not expected to be acutely toxic. |
| | Acute measures of toxicity (i.e. LD50 and LC50) are not available for this mixture. |
| | LD50 for Lidocaine Hydrochloride: 317 mg/kg oral rat |
| | LD50 for Epinephrine Bitartrate: 4 mg/kg oral mouse |
| Skin Corrosion/Irritation: | May be irritating to the skin. |
| Serious Eye Damage/Irritation: | May be irritating to the eyes. |
| Respiratory or Skin Sensitization: | Not available |
| Interactive Effects: | Not available |
| Mutagenicity: | Not available |
| Carcinogenicity: | This product has not been listed as a carcinogen or a potential carcinogen by the ACGIH, the International Agency for Research on Cancer (IARC), the US National Toxicology Program (NTP) or the US Occupational Safety and Health Administration (OSHA). |
| Reproductive Toxicity: | No significant effects were observed on fetal development. However, animal studies have found that continuous exposure throughout pregnancy may decrease birth weight. |
| Specific Target Organ Toxicity – Single Exposure: | Causes central nervous system effects such as drowsiness, confusion, excitability and nervousness. Acts as a depressant on the cardiovascular system. |
| Specific Target Organ Toxicity – Repeated Exposure: | May cause hypersensitivity. Associated with the development of methemoglobinemia. |
| Aspiration Hazard: | Not available. Not expected to be of concern. |

SECTION 12: ECOLOGICAL INFORMATION

| Ecotoxicity: | Not available |
|----------------------------------|---------------|
| Persistence / Degradability: | Not available |
| Bioaccumulation / Accumulation: | Not available |
| Mobility in Environmental Media: | Not available |
| Other Adverse Effects: | Not available |

| SECTION 13: | DISPOSAL CONSIDERATIONS |
|-------------|--------------------------|
| OLOTION 13. | DIOI COAL CONCIDENATIONS |

| Disposal: | Observe all Federal/Provincial/State and Local disposal regulations. |
|-----------|----------------------------------------------------------------------|
| | |

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| SECTION 14: | TRANSPORTATION INFORMATION |
|-------------------------------|----------------------------------------------------|
| UN Number: | Not available |
| UN Proper Shipping Name: | Not available |
| Transport Hazard Classes: | Not available |
| Packing Group: | Not available |
| Environmental Hazards: | Not available |
| Special Precautions for User: | Avoid temperature extremes. Prevent from freezing. |

| SECTION 15: | REGULATORY INFORMATION |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| OSHA Regulatory Status: | Epinephrine bitartrate (epinephrine salt) is <u>not</u> listed as a hazardous product in the RCRA (EPA) and CERCLA (EPA) regulations. |
| Regulatory Status: | This product is exempt from current WHMIS legislation as a drug product |

| SECTION 16: | OTHER INFORMATION |
|--------------------------------------------|--------------------------------------------------------|
| Name of person or group that prepared SDS: | Septodont in conjunction with a third party consultant |
| Phone #: | 519-623-4800 |
| SDS Version# | # 5 (replaces V 4 of July 19, 2013) |

Information and statements contained in this document have been obtained from manufacturers, suppliers and recognized reference sources as provided to or obtained by Septodont.

Septodont believes the information to be reliable but expressly disclaims any liability for providing such information and toxicology to our customers.