

SAFETY DATA SHEET

NAME OF PRODUCT: BONDING Liquid

FILE NO.: SDS983

SDS DATE: 06/19/2014

SECTION 1: IDENTIFICATION

PRODUCT NAME: BONDING Liquid
PRODUCT CODES: 0921983, 0921984, 0921788, 0921789
IDENTIFIED USES: Dentistry
USES ADVISED AGAINST: Non-dental use
MANUFACTURER: Harry J. Bosworth Company
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352-323-3500 (International)

SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION: Flammable liquids (Category 2)
Skin irritation (Category 2)
Skin sensitization (Category 1)
Specific target organ toxicity - single exposure (Category 3), Respiratory system

LABELING: FDA regulated device - exempt from Regulation (US) 29 CFR 1910.1200.

PICTOGRAM:**SIGNAL WORD:** Danger**HAZARD STATEMENTS:**

| | |
|----------------|--|
| H225 | Highly flammable liquid and vapor. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H335 | May cause respiratory irritation. |
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat/sparks/open flames/hot surfaces. - No smoking. |
| P234 | Keep only in original container. |
| P235+P410 | Keep cool. Protect from sunlight. |
| P240 | Ground/bond container and receiving equipment. |
| P241 | Use explosion-proof electrical/ ventilating/ lighting/ equipment. |
| P242 | Use only non-sparking tools. |
| P243 | Take precautionary measures against static discharge. |
| P261 | Avoid breathing dust/fume/gas/mist/vapors/spray. |
| P264 | Wash thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P303+P361+P353 | IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313 | IF exposed or concerned: Get medical advice/ attention. |
| P312 | Call a POISON CENTER or doctor/ physician if you feel unwell. |
| P321 | Specific treatment (see supplemental first aid instructions on this label). |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P342+P313 | If experiencing respiratory symptoms: Get medical advice/attention. |
| P362 | Take off contaminated clothing and wash before reuse. |
| P370+P378 | In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction. |
| P391 | Collect spillage. |
| P402 | Store in a dry place. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P501 | Dispose of contents/container to an approved waste disposal plant. |

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| COMPONENT | CAS NO. | %WT | OSHA PEL - TWA | ACGIH TLV - TWA | CLASSIFICATION |
|---------------------|---------|--------|----------------|-----------------|--|
| Methyl methacrylate | 80-62-6 | 60-100 | 100 ppm | 50 ppm | Flam. Liq. 2; Skin Irrit. 2; Skin Sens. 1; STOT SE 3; H225, H315, H317, H335 |

*For full text of H-statements mentioned in this section, see section 16.***SECTION 4: FIRST-AID MEASURES**

| | |
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| INHALATION: | Move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| SKIN: | Wash off with soap and plenty of water. Consult a physician. |
| EYE: | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| INGESTION: | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |

SECTION 5: FIRE-FIGHTING MEASURES

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| SUITABLE EXTINGUISHING MEDIA: | Water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| HAZARDOUS DECOMPOSITION PRODUCTS: | Oxides of carbon. |
| SPECIAL HAZARDS: | Sealed containers exposed to elevated temperatures may rupture explosively due to polymerization. Vapors are heavier than air and may travel to ignition source. Vapors are uninhibited and may form polymers in vents or flame arrestors resulting in stoppage of vents. |
| ADVICE FOR FIREFIGHTERS: | Fight fires from safe distance or protected areas. Cool containers of material exposed to heat with cold water spray. Wear self contained breathing apparatus for firefighting if necessary. |

SECTION 6: ACCIDENTAL RELEASE MEASURES

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| PERSONAL PRECAUTIONS: | Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. |
| ENVIRONMENTAL PRECAUTIONS: | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. |
| CONTAINMENT AND CLEANUP: | Soak up with inert absorbent material and collect with an electrically protected vacuum cleaner or by wet-brushing. Place in suitable, closed container for disposal according to official regulations. |

SECTION 7: HANDLING AND STORAGE

| | |
|---------------------------------------|--|
| PRECAUTIONS FOR SAFE HANDLING: | 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. Avoid contact with the eyes and skin. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. Keep away from foodstuffs, beverages and animal feed. |
| CONDITIONS FOR SAFE STORAGE: | Store only in the original package. Keep container tightly sealed in a dry and well-ventilated place. Protect from heat and direct sunlight. Store away from food and beverages. |

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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| ENGINEERING CONTROLS: | Handle in accordance with good industrial hygiene and safety practice. Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits. Local exhaust ventilation is preferred since it prevents contamination dispersion into the work area by controlling it at its source. Provide eyewash and safety shower if contact or splash hazard exists. Wash hands before breaks and at the end of work. |
| EYE/FACE PROTECTION: | Safety glasses. |
| SKIN PROTECTION: | Glove material impermeable and resistant to the product. |
| BODY PROTECTION: | Protective work clothing. |
| RESPIRATORY PROTECTION: | NIOSH (US) or CEN (EU) approved respirators and components. |
| ENVIRONMENTAL EXPOSURE: | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--------------------------|-------------------------|
| APPEARANCE/COLOR: | Clear, colorless liquid |
| ODOR: | Acrid |
| BOILING POINT: | 216°F (102°C) |
| PREPARED BY: | SS |

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FLASH POINT: 50°F (10°C)
EVAPORATION RATE (BuAc = 1.0): 3
UPPER FLAMMABILITY LIMIT: 12.5
LOWER FLAMMABILITY LIMIT: 2.1
VAPOR PRESSURE: 29 mmHg
VAPOR DENSITY (AIR=1.0): 3.5
RELATIVE DENSITY (H₂O=1.0): 0.95 g/cm³
WATER SOLUBILITY: 1.5 wt%

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under recommended storage conditions. Polymerizes with evolution of heat. Avoid contact with incompatible materials. Unless inhibited, product can polymerize, raising temperature and pressure, possibly rupturing container. Check inhibitor content often adding to bulk liquid if needed. Do not blanket or mix with oxygen-free gas as it renders inhibitor ineffective.

HAZARDOUS REACTIONS: Vapors may form explosive mixture with air. Polymerizes readily unless inhibited.

CONDITIONS TO AVOID: Heat, flames, sparks, aging, contamination and absence of an oxygen containing atmosphere above the product. May polymerize upon exposure to light. Extremes of temperature and direct sunlight.

INCOMPATIBLE MATERIALS: Oxidizing agents, peroxides, amines, bases, acids, reducing agents, halogens. Material has strong solvent properties and can soften paint and rubber.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS: **EYES:** May cause eye irritation with redness, tearing and stinging.
SKIN: May cause skin irritation with redness, swelling and itching. Repeated or prolonged contact may cause drying, defatting of the skin and dermatitis.
INGESTION: May cause mucous membrane and gastrointestinal irritation with nausea, vomiting and diarrhea. May cause nervous system depression with symptoms of headache, dizziness, nausea, vomiting, weakness, fatigue, confusion, and unconsciousness.
INHALATION: May cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness, drowsiness, nausea, vomiting, and unconsciousness. High vapor concentrations may cause burning sensation of the nose and throat and watering of the eyes.

SKIN SENSITIZATION: May cause allergic skin reaction.

CARCINOGENICITY: **OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or possible carcinogen by OSHA.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: Methyl methacrylate is identified as not classifiable as to its carcinogenicity to humans by IARC.

SECTION 12: ECOLOGICAL INFORMATION

ADVERSE EFFECTS: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: DISPOSAL CONSIDERATIONS

PRODUCT: Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Disposal must be made according to official regulations.

CONTAMINATED PACKAGING: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

UN NUMBER: UN1247
PROPER SHIPPING NAME: Methyl methacrylate monomer, stabilized
HAZARD CLASS: 3
PACKING GROUP: II
LABEL STATEMENT: Flammable Liquid

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SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

TSCA: This product is an FDA regulated device and not subject to TSCA regulations.
CERCLA: This product is an FDA regulated device and not subject to reporting requirements. There may be specific reporting requirements at the local, regional, or state level.
SARA 313 TOXIC CHEMICALS: The following components are subject to reporting levels established by SARA Title III, Section 313 (40 CFR 372): *Methyl Methacrylate, CAS NO. 80-62-6*.
SARA 311/312 HAZARDS: This product is an FDA regulated device and not subject to reporting requirements.

INTERNATIONAL REGULATIONS

CANADIAN ENVIRONMENTAL PROTECTION ACT: This product is a medical device and not subject to chemical notification requirements.
EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS): This product is a medical device and not subject to chemical notification requirements.

SECTION 16: OTHER INFORMATION

FULL TEXT OF H STATEMENTS REFERRED TO UNDER SECTION 3

| | |
|-------------|--|
| Flam. Liq. | Flammable liquids |
| H225 | Highly flammable liquid and vapor. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H335 | May cause respiratory irritation. |
| Skin Irrit. | Skin irritation |
| Skin Sens. | Skin sensitization |
| STOT SE | Specific target organ toxicity – single exposure |

NFPA RATING

| | |
|-------------------|---|
| Health Hazard | 2 |
| Fire Hazard | 3 |
| Reactivity Hazard | 2 |

PREPARATION INFORMATION: This SDS was prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and is to be used only for this product.

DISCLAIMER: To the best of our knowledge, the information contained herein is accurate. However, The Harry J. Bosworth Company does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.