SAFETY DATA SHEET

FILE NO.: SDS742

NAME OF PRODUCT: SAPPHIRE™ Liquid

SDS DATE: 06/19/2014

SECTION 1: IDENTIFICATION

PRODUCT NAME:	SAPPHIRE Liquid
PRODUCT CODES:	0921740, 0921740C, 0921742
IDENTIFIED USES:	Dentistry
USES ADVISED AGAINST:	Non-dental use
MANUFACTURER:	Harry J. Bosworth Company
ADDRESS:	7227 North Hamlin Avenue, Skokie, Illinois 60076-3999, USA
TELEPHONE:	847-679-3400
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SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION:

Flammable liquids (Category 3)
Acute toxicity, Oral (Category 5)
Acute toxicity, Dermal (Category 5)
Skin irritation (Category 2)
Skin sensitization (Category 1)
Eye irritation (Category 2A)
Acute toxicity, Inhalation (Category 5)
Specific target organ toxicity - single exposure (Category 3), Respiratory system
Reproductive toxicity (Category 2)
Specific target organ toxicity - repeated exposure (Category 2)
Acute aquatic toxicity (Category 1)
Chronic aquatic toxicity (Category 4)

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

PICTOGRAM:



SIGNAL WORD: Warning

HAZARD STATEMENTS:		
	H226	Flammable liquid and vapor.
	H303	May be harmful if swallowed.
	H313	May be harmful in contact with skin.
	H315	Causes skin irritation.
	H317	May cause an allergic skin reaction.
	H319	Causes serious eye irritation.
	H333	May be harmful if inhaled.
	H335	May cause respiratory irritation.
	H361	Suspected of damaging fertility or the unborn child.
	H373	May cause damage to organs through prolonged or repeated exposure.
	H400	Very toxic to aquatic life.
	H413	May cause long lasting harmful effects to aquatic life.
PRECAUTIONARY STATEMENTS:	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.
	P273	Avoid release to the environment.
	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.
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.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	%WT	OSHA PEL - TWA	ACGIH TLV - TWA	CLASSIFICATION
Isobutyl methacrylate	97-86-9	60-100	N/E	N/E	Flam. Liq. 3; Skin Irrit. 2; Eye Irrit. 2A; Skin Sens. 1; STOT SE 3; Aquatic Acute 1; H226, H315, H317, H319, H335, H400
Dibutyl phthalate	84-74-2	5-15	5 mg/m^3	5 mg/m^3	Repr. 1B; Aquatic Acute 1; Aquatic Chronic 1; H360, H410
N,N-Dimethyl-p-toluidine	99-97-8	1-5	N/E	N/E	Flam. Liq. 4; Acute Tox. 3; STOT RE 2; Aquatic Acute 3; Aquatic Chronic 3; H227, H301+H311+H331, H373, H412

For full text of H-statements mentioned in this section, see section 16.

SECTION 4: FIRST-AID MEASURES

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

SUITABLE EXTINGUISHING MEDIA: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and nitrogen.

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

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

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. Discharge into the environment must be avoided.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/COLOR: Clear, colorless liquid

ODOR: Acrid

BOILING POINT: 311°F (155°C)

FLASH POINT: 113°F (45°C)

EVAPORATION RATE (BuAc = 1.0): 0.5

UPPER FLAMMABILITY LIMIT: 8.2

LOWER FLAMMABILITY LIMIT: 1.8

VAPOR PRESSURE: 3 mmHg

VAPOR DENSITY (AIR=1.0): 4.91

RELATIVE DENSITY (H2O=1.0): 0.90 g/cm^3

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: Strong acids, strong bases and oxidizing agents. Material has strong solvent properties and can soften paint and rubber.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and nitrogen.

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: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

REPRODUCTIVE TOXICITY: Dibutyl phthalate is a presumed human reproductive toxicant. Overexposure may cause reproductive disorders based on tests with laboratory animals.

SECTION 12: ECOLOGICAL INFORMATION

ADVERSE EFFECTS: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life. May cause long lasting harmful effects to aquatic life. Avoid release to the environment.

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: UN2283
PROPER SHIPPING NAME: Isobutyl methacrylate, stabilized
HAZARD CLASS: 3
PACKING GROUP: III
LABEL STATEMENT: Flammable Liquid

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): *Dibutyl Phthalate, CAS NO. 84-74-2.*

SARA 311/312 HAZARDS: This product is an FDA regulated device and not subject to reporting requirements.

US STATE REGULATIONS

CALIFORNIA PROPOSITION 65: This product may contain a chemical known to the State of California to cause cancer and/or reproductive toxicity.

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

Acute Tox.	**Acute toxicity**
Aquatic Acute	**Acute aquatic toxicity**

Aquatic Chronic	**Chronic aquatic toxicity**
Eye Irrit.	**Eye irritation**
Flam. Liq.	**Flammable liquids**
H226	**Flammable liquid and vapor.**
H227	**Combustible liquid.**
H301+H311+H331	**Toxic if swallowed, in contact with skin or if inhaled.**
H315	**Causes skin irritation.**
H317	**May cause an allergic skin reaction.**
H319	**Causes serious eye irritation.**
H335	**May cause respiratory irritation.**
H360	**May damage fertility or the unborn child.**
H373	**May cause damage to organs through prolonged or repeated exposure.**
H400	**Very toxic to aquatic life.**
H410	**Very toxic to aquatic life with long lasting effects.**
H412	**Harmful to aquatic life with long lasting effects.**
Repr.	**Reproductive toxicity**
Skin Irrit.	**Skin irritation**
Skin Sens.	**Skin sensitization**
STOT RE	**Specific target organ toxicity – repeated exposure**
STOT SE	**Specific target organ toxicity – single exposure**

NFPA RATING

Health Hazard	2
Fire Hazard	2
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.