

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

MANUFACTURER: LANG DENTAL MFG. CO., INC.
175 MESSNER DRIVE
WHEELING, IL 60090
USA

TELEPHONE: PRODUCT INFORMATION: (800) 222-5264 or (847) 215-6622

EMERGENCY CONTACT: INFOTRAC 24 HOURS RESPONSE CHEMICAL SYSTEM
(800) 535-5053 or (352) 323-3500

PRODUCT NAME: TEMPO LIQUID

PRODUCT NUMBERS: 1003, 1004, 1006, 1007, 1008, 1012, 1023, 1034

2. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NATURE:
Dibutyl Phthalate: CAS Number – 84-74-2

HAZARDOUS INGREDIENT (S):	%:	HAZARD SYMBOL:	R PHRASES:
84-74-2 Dibutyl Phthalate	< 85	Xn, N	61-62-50
64-17-5 Ethyl Alcohol	< 25	F	11
119-36-8 Methyl Salicylate	< 5	Xn	22-36/37/38

3. HAZARDS IDENTIFICATION

WARNING: Poison! Danger! May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Vapor is harmful.

Highly flammable. Effects central nervous system. Causes irritating to eyes, respiratory system and skin. May cause sensitization by skin contact. May affect liver, blood, and reproductive system.

4. FIRST AID MEASURES

INHALATION: Remove patient from exposure, keep warm and at rest. Obtain immediate attention.

SKIN: Remove contaminated clothing, wash thoroughly before reuse. If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the effected area with soap and water. If symptoms (irritation or redness or swelling persists) occur obtain medical attention.

EYE: Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.

INGESTION: Do not induce vomiting. Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Obtain medical attention. Never give anything by mouth to an unconscious person. Call a physician.

5. FIRE FIGHTING MEASURES

For Ethanol:		
FLASH POINT (METHOD):	APPROX. FLAMMABLE LIMITS:	AUTOIGNITION TEMPERATURE:
63°F (Closed Cup)	LEL 3.3%*, UEL 19%	NE

Highly flammable. May polymerize on heating. Sealed containers may rupture explosively if hot.

EXTINGUISHING MEDIA: Chemical foam, dry chemical or CO₂.

FIRE AND EXPLOSION HAZARDS: For bulk quantity. Eliminate all nearby sources of ignition. Move containers from fire area if it can be done with out risk. Vapors are heavier than air, fire may flash back.

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FIRE FIGHTING PROTECTIVE EQUIPMENT: A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Fight fire from a safe location. Use water spray to cool containers and structures, and to minimize vapors. Either allow the fire to burn under controlled conditions or extinguish with alcohol foam and dry chemical.

SENSITIVE TO MECHANICAL IMPACT: No.

SENSITIVE TO STATIC DISCHARGE: Yes.

6. ACCIDENTAL RELEASE MEASURES

Eliminate sources of ignition. Ensure suitable personal protection (including respiratory protection) during removal of spillages. Prevent entry into drains. Adsorb spillages onto sand, earth or any suitable adsorbent material. Do not adsorb onto sawdust or other combustible materials. Transfer to a container for disposal or recovery. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

7. HANDLING AND STORAGE

PRECAUTIONS FOR HANDLING: Observe precautions found on the label. Close container after each use. Ground all metal containers when transferring. Use explosion-proof equipment.

HANDLING: Avoid contact with skin and eyes.
Avoid inhalation of high concentration of vapors. Use only in well ventilated areas.
The vapor is heavier than air; beware of pits and confined spaces. Take precautionary measures against static discharges.

STORAGE: Keep only in original container. Store in cool, dry place away from heat, sparks, flame, direct sunlight and other light sources, or sources of intense heat.
Keep container closed to prevent water absorption and contamination. Keep away from sources of ignition – No Smoking.

STORAGE TEMPERATURE: Preferably not exceeding 25 °C.

INDUSTRIAL HYGIENE PRACTICES: Avoid contact with skin, eyes, clothing, and prolonged contact with the product. Wash face and hands thoroughly with the soap and water after use and before eating, drinking, smoking or applying cosmetics.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

The following information is given as general guidance.

RESPIRATORS: Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely. A suitable mask with filter type A may be appropriate. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR SS 1910.134 or other appropriate governing standard.

EYE PROTECTION: Depending on the use of this product, splash or safety glasses may be worn. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR SS 1910.133 or other appropriate governing standard. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.

GLOVES: If anticipated that prolonged & repeated skin contact will occur during use of this product, wear chemical resistant gloves for routine industrial use. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR SS 1910.138 or other appropriate governing standard.

OTHER: Wear suitable protective clothing.

OCCUPATIONAL EXPOSURE LIMITS:

HAZARDOUS INGREDIENT (S):	PEL (OSHA):	TLV (ACGIH):	COMPANY:
Dibutyl Phthalate	5 mg/m ³	5 mg/m ³	5 mg/m ³

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Ethyl Alcohol	1000 ppm	1000 ppm	1000 ppm
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9. PHYSICAL AND CHEMICAL PROPERTIES

For Ethanol: EVAPORATION RATE: 3.0 (BuAc=1)	VAPOR PRESSURE (45 mm Hg): 38.9 °C (68 °F)	SOLUBILITY IN H ₂ O: Completely.
PERCENT VOLATILE: N/A	BOIL POINT: 176° F	VAPOR DENSITY: 1.60 (AIR=1)
SPECIFIC GRAVITY: 0.8152-0.8164 @ 60°F	APPEARANCE AND ODOR: Clear, pale yellow, oily liquid; Pleasant minty odor.	

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Heat, open flames, sparks, static electricity, sunlight, other sources of ignition and moisture.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidants, silver salts, acid chlorides, alkali metals, metal hydrides, and many other substances.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon when burned.

HAZARDOUS REACTIONS: Stable in the presence of inhibitor. Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

PRIMARY ROUTES OF ENTRY: Eyes, skin, inhalation and ingestion.

TARGET ORGANS: For Dibutyl Phthalate: Kidneys, central nervous system, eyes and male reproductive system.
For alcohol: Eyes, kidneys, liver and nervous system.

MUTAGENICITY DATA:
For Dibutyl Phthalate: Fibroblast Hamster Cytogenetic Analysis: 125 mg/L/24H

REPRODUCTIVE DATA:
For Dibutyl Phthalate: Intraperitoneal Rat TD_{Lo}: 698 mg/kg 5-15D preg.
For Ethanol: Ethanol has been linked to birth defects in humans.

TOXICITY DATA:
This product has NOT been tested on animals to obtain toxicology data. There is toxicology data for the components of the product, which is found in scientific literature. Some of the data is presented below.

For Dibutyl Phthalate: Acute Oral Rat LD₅₀: 7000 mg/kg
Intraperitoneal Rat LD₅₀: 6,889 uL/kg

For Ethanol: Oral Rat LD₅₀: 7060 mg/kg
Inhalation Rat LD₅₀: 20,000 ppm/10H

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY: There is no specific data available for this product; however, very large releases of this product may be harmful or fatal to overexposed aquatic life. There is ecological data for the components of the product, which is found in scientific literature. These data have not been presented in this document.

For Dibutyl Phthalate: LC₅₀ (flathead minnow) 0.92 mg/L/96H

ENVIRONMENTAL FATE:
For Ethanol: Soil: Readily biodegrades, quickly evaporates, leaches into groundwater.
Water: Readily biodegrades, evaporates to a moderate extent. Does not bioaccumulate.

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Air: Readily degrades by reaction with photo-chemically produced hydroxyl radicals, readily removed by dry and wet deposition, has a half life between 1 and 10 days.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Disposal should be in accordance with local, state or national legislation. Incinerate liquid and dike material in accordance with federal, state and local regulations.

DISPOSAL OF EMPTY CONTAINERS: Reuse of empty drums or containers is not recommended. Employees should be advised of the potential hazards due to residual flammable material, associated with empty containers. Dispose of all empty containers properly, in accordance with Federal, State and Local regulations.

14. TRANSPORTATION

DOT / UN SHIPPING NAME:	Flammable liquid, n.o.s. (Ethyl alcohol / Dibutyl phthalate solution)
NA/UN NUMBER:	UN1993
IATA CLASS:	3
PACKING GROUP:	II
IMDG CLASS:	3
LABEL FOR AIR:	Flammable liquid
LABEL FOR OCEAN:	Flammable liquid / Marine pollutant

15. REGULATORY INFORMATION

EC REGULATIONS:

EINECS: all chemical listed

EEC Classification: HIGHLY FLAMMABLE AND HARMFUL
Symbol: Indication of Danger



F Highly Flammable



Xn Harmful

Risk Phrases:

- R11 Highly flammable.
- R50 Very toxic to aquatic organism.
- R61 May cause harm to the unborn child.
- R62 Possible risk of impaired fertility.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapors may cause drowsiness and dizziness.

Safety Phrases:

- S7/8 Keep container tightly closed and dry.
- S9 Keep container in a well-ventilated place.
- S16 Keep away from sources of ignition. No smoking.
- S20 When using do not eat or drink.
- S29 Do not empty into drains.
- S33 Take precautionary measures against static discharges.
- S37/39 Wear suitable gloves and eye/face protection.
- S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
- S53 Avoid exposure – see instructions before use.
- S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

CANADIAN REGULATIONS:

DSL: included

WHMIS Classification: B2 Flammable Liquid
D2B Toxic

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR. None of the components of this product are listed on the Priorities Substances List.

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TSCA Inventory Status: The components of this product are listed on the TSCA Inventory.
Other Federal Requirements: This product complies with the appropriate sections of the U.S. FDA's 21 CFR.
State Regulatory: This product may contain components that are covered under specific state criteria.
SARA Reporting Requirements: Yes
SARA Threshold Planning Quantity: There are specific Threshold Planning Quantities for the components of this product.

16. OTHER INFORMATION

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) RATING:
HEALTH = 1
FLAMMABILITY = 3
REACTIVITY = 1
PERSONAL PROTECTIVE EQUIPMENT – Gloves and safety glasses or chemical splash goggles.

This data sheet was prepared in accordance with Directive 91/155/EEC.

The above information has been gathered from reliable sources and is believed to be correct. However, the information is provided without any warranty, either expressed or implied. Lang Dental Mfg. Co, Inc. shall not be held liable for any damage resulting from the handling of or contact with the above product.

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