SAFETY DATA SHEET

Issue Date 26-Sept-2014 **Revision Date** **Version** 1

1. IDENTIFICATION

Product Identifier
Product Name SPLINTLINE LIQUID

Other means of identification
SDS# 026
UN/ID No UN1993
Product Code 2003, 2004, 2007, 2008, 2012, 2093

Recommended use of the chemical and restrictions on use
Recommended Use Fabrication of provisional crowns and bridges

Details of the supplier of the safety data sheet
Supplier Address
Lang Dental Mfg. Co., Inc.
175 Messner Dr.
Wheeling, IL 60090
USA

Emergency telephone number
Company Phone Number 847-215-6622
Emergency Telephone (INFOTRAC) 352-323-3500 (International)
800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity – Inhalation (Vapors)	Category 4
Skin corrosion / irritation	Category 2
Serious eye damage / eye irritation	Category 2
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Flammable liquids	Category 2

Signal word
Warning

Hazard statements Harmful if inhaled.
Causes skin irritation.
Causes severe eye irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Highly flammable liquid and vapor.



Appearance Clear **Physical state** Liquid **Odor** Acrid

Precautionary Statements – Prevention
Use only outdoors or in a well-ventilated area.
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves and clothing. Wear eye and face protection.
Contaminated clothing should not be allowed out of the workplace.
Avoid breathing dust, fume, gas, mist, vapors or spray.
Keep away from heat, spark, open flame and hot surface. NO SMOKING.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Keep cool.

Precautionary Statements – Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. If skin irritation or rash occurs, get medical advice/attention.
IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
IN CASE OF FIRE: Use CO_2, dry chemical or foam for extinction.

Precautionary Statements – Storage Store in a well-ventilated place.
Keep container tightly closed.
Store locked up.

Precautionary Statements – Disposal Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) May be harmful if swallowed

Other Information Harmful to aquatic life with long lasting effects
Harmful to aquatic life

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight - %	Trade Secret
Ethyl methacrylate	97-63-2	<50	*
N-Butyl methacrylate	97-88-1	<50	*
Trimethylolpropane Trimethacrylate	3290-92-4	<30	*
N,N-Dimethyl-p-Toluidine	99-97-8	<5	*

*Specific chemical weight has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Keep patient warm and at rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Call a physician immediately.

Ingestion Do NOT induce vomiting. Drink plenty of water or milk immediately. Never give anything by mouth to an unconscious person. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. Call a physician or poison control center immediately.

Skin Contact Wash off immediately with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs, get medical advice/attention.

Most important symptoms and effects, both acute and delayed

Symptoms May cause skin and eye irritation. In high concentrations, vapors and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Irritating to mouth throat and stomach if ingested.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable: Water spray (fog), Chemical foam, carbon dioxide (CO_2), dry chemical
Use water spray to cool fire-exposed containers.

Unsuitable: Not determined

Specific hazards arising from the chemical

Extremely flammable. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products: Carbon oxides
Sensitivity to Static Discharge: Yes

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Fight fire from a safe location.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Review Fire Fighting Measures and Handling (Personnel) sections before proceeding with clean-up. Use personal protective equipment as required. For bulk quantity, evacuate personnel, thoroughly ventilate area and use self-contained breathing apparatus.

Environmental precautions Prevent product from entering into waterways, sewers, basements or confined areas. See Section 12 for additional ecological information.

Methods and material for containment and clean-up

Method for containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Dike the spilled material, where this is possible.
Method for clean-up	Use non-sparking hand tools and explosion-proof electrical equipment. Take up with sand or other non-combustible absorbent material and place into containers for later disposal. Clean-up material as a RCRA Hazardous Waste.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Avoid contact with skin and eyes. Use only in well-ventilated areas. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Ground container and transfer equipment to eliminate static electric sparks. Use non-sparking hand tools and explosion-proof electrical equipment. Keep away from heat, sparks, open flames, and hot surfaces. NO SMOKING. Take precautionary measures against static discharges. Keep containers closed when not in use. Use personal protection recommended in Section 8. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Do not breathe dust, fume, gas, mist, vapor or spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from heat, sparks and flame. Protect from direct sunlight. Keep container closed to prevent water absorption and contamination. Store locked up.
Packaging materials	Keep in original container.
Incompatible materials	Strong oxidizing agents, strong acids, strong bases

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines
Appropriate engineering controls

Engineering controls	Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

Eye / face protection	Wear approved safety goggles, full-face shield
Skin and body protection	Wear suitable gloves. Nitrile rubber is better than PVC. Gloves should be changed if excessive exposure has occurred. Gloves should be changed regularly to avoid permeation problems. Wear suitable protective clothing.
Respiratory protection	Wear suitable respiratory equipment if exposure to levels above the occupational exposure limit is likely. A suitable mask with filter type A may be appropriate. In the event of formation of particularly high levels of vapor, a self-contained breathing apparatus may be appropriate.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	**Odor**	Acrid
Appearance	Liquid	**Odor threshold**	Not determined
Color	Clear		

Property	**Values**	**Remarks / Method**
pH	Not determined	
Melting point / freezing point	Not determined	
Boiling point / boiling range	118°C / 244° F	
Flash point	19°C / 66.2°F	
Evaporation rate	Not determined	
Flammability (solid, gas)	n/a (liquid)	
Flammability limits in air		
Upper flammability limit	Not determined	
Lower flammability limit	1.8%	
Vapor pressure	15mm Hg	@ 20°C
Vapor density	3.94	Air = 1
Specific gravity	0.933	
Water solubility	0.5%	@ 20°C
Solubility in other solvents	Not determined	
Partition coefficient	Not determined	
Autoignition temperature	421°C / 790°F	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic viscosity	Not determined	
Explosive properties	Not determined	
Oxidizing properties	Not determined	

Other information 0.933 g/mL @ 20°C

10. STABILITY AND REACTIVITY

Reactivity Not reactive under normal conditions

Chemical stability Stable in the presence of inhibitor

Possibility of hazardous reactions None under normal processing

Hazardous polymerization Hazardous polymerization may occur. May undergo auto polymerization.

Conditions to avoid Sealed containers may rupture explosively if hot. Susceptible to polymerization initiated by prolonged heating of the presence of catalyst.

Incompatible materials Strong oxidizing agents, strong acids, strong bases

Hazardous decomposition products Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposures

Product information

Inhalation	Harmful if inhaled.
Eye contact	Causes severe eye irritation.
Skin contact	Causes skin irritation.
Ingestion	May be harmful if swallowed

Component information

Chemical Name	ORAL LD50	DERMAL LD50	INHALATION LC50
Ethyl methacrylate 97-63-2	14800 mg/kg (rat)	-	8300 ppm (rat) 4 h
N-Butyl methacrylate 97-88-1	16 g/kg (rat)	10181 mg/kg (rabbit)	4910 ppm (rat) 4 h
Trimethylolpropane Trimethacrylate 3290-92-4	= 5660 µL/kg (rat)	= 16 mL/kg (rabbit)	-
N,N-Dimethyl-p-Toluidine 99-97-8	1650 mg/kg (rat)	-	1400 mg/m^3 (rat) 4 h

Information on physical, chemical and toxicological effects

Symptoms May cause skin and eye irritation. In high concentrations, vapors and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Irritating to mouth, throat and stomach if ingested.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause allergic skin reaction.

Carcinogenicity Not classifiable as a human carcinogen

STOT – single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

STOT – repeated exposure May cause damage to organs through prolonged or repeated exposure.

Numerical measures of toxicity – Product Not determined

The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral)	3522	mg/kg
ATEmix (dermal)	11462	mg/kg
ATEmix (inhalation-dust/mist)	8300	ppm

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long-lasting effects

Chemical Name	Algae / aquatic plants	Fish	Toxicity to microorganisms	Crustacea
N-Butyl methacrylate 97-88-1	57: 96 h Psuedokirchneriella subcapitata mg/L EC50	11: 96 h Pimephales promelas mg/L LC50 flow-through	EC50 = 37 mg/L 5 min EC50 = 49 mg/L 15 min EC50 = 55 mg/L 30 min EC50 >253.6 mg/L 18 h	32: 48 h Daphnia magna mg/L EC50
Trimethylolpropane Trimethacrylate 3290-92-4	-	144: 96 h Oncorhynchus mykiss mg/L LC50 160: 96 h Pimphales promelas mg/L LC50 112: 96 h Lepomis macrochirus mg/L LC50	-	-
N.N-Dimethyl-p-Toluidine 99-97-8	-	42-50.5: 96 h Pimphales promelas mg/L LC50 flow-through	-	-

Persistence and degradability Material is readily biodegradable. 79% in 28 days.

Bioaccumulation This product has low potential for bioaccumulation.

Mobility Potential for mobility in soil is very high

Chemical Name	Partition coefficient
N-Butyl methacrylate	2.26

Other adverse effects This product is substantially removed in biological treatment processes.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Dispose of in accordance with federal, state and local regulations. Do not flush to surface or sanitary sewer system. Incinerate at an approved facility. Do not incinerate closed containers. Exert extra care in igniting as this material is highly flammable.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

Chemical Name	RCRA	RCRA – Basis for Listing	RCRA – D Series Wastes	RCRA – U Series Wastes
Ethyl Methacrylate 97-63-2	U118	Included in waste stream; F039	-	U118

14. TRANSPORTATION INFORMATION

DOT

UN / ID No	UN1993
Proper shipping name	Flammable liquid, n.o.s. (Ethyl methacrylate, stabilized / N-butyl methacrylate, stabilized solution)
Hazard Class	3
Packing Group	II

IATA

UN / ID No	UN1993
Proper shipping name	Flammable liquid, n.o.s. (Ethyl methacrylate, stabilized / N-butyl methacrylate, stabilized solution)
Hazard Class	3
Packing Group	II

IMDG

UN / ID No	UN1993
Proper shipping name	Flammable liquid, n.o.s. (Ethyl methacrylate, stabilized / N-butyl methacrylate, stabilized solution)
Hazard Class	3
Packing Group	II

15. REGULATORY INFORMATION

International Inventories

DSL	Listed	Canadian Domestic Substances List
EINECS	Listed	European Inventory of Existing Chemical Substances

US Federal Regulations

SARA 311 / 312 Hazard Categories

Chemical Name	Hazardous Substances RQs	CERCLA / SARA RQ	Reportable Quantity (RQ) Final

Ethyl Methacrylate 80-62-6	1000 lb.	-	1000 lb. / 454 kg

US State Regulations

US State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ethyl Methacrylate 97-63-2	X	X	X
N-Butyl methacrylate	X	X	X

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability
	2	3	2
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**
	2	3	2

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Revision Note

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. It is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet