



Effective Date 23-Mar-2020

SAFETY DATA SHEET

Version 4

1. IDENTIFICATION

Product Identifier

Product Name FLEXACRYL HARD LIQUID

Other means of identification

SDS# 037
UN/ID No UN1993
Product Code 0903, 0904, 0906, 0907, 0908, 0923, 0934, 0956

Recommended use of the mixture and restrictions on use

Recommended Use Modifying dental prosthesis

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 +1-847-215-6622
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2. HAZARDS IDENTIFICATION

Classification

Flammable liquids	Category 3
Skin corrosion/irritation	Category 2
Skin sensitization	Category 1
Serious eye damage / eye irritation	Category 2A
STOT Single exposure	Category 3

Signal word Warning

Hazard statements H226 Flammable liquid and vapor.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.



Color Clear to slightly yellow

Physical state Liquid

Odor Acrid

Precautionary Statements – Prevention

- 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.
- P233 Keep container tightly closed.
- 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 hands thoroughly after handling.
- 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.

Precautionary Statements – Response

- 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.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- 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 it before reuse.
- P370+P378 In case of fire: Use CO₂, dry chemical or foam for extinction.

- Precautionary Statements – Storage** P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.

- Precautionary Statements – Disposal** P501 Dispose of contents/container to an approved waste disposal plant.

Hazardous component(s) for labeling Contains n-Butyl methacrylate

3. COMPOSITION / INFORMATION ON INGREDIENTS

Classification of the substance or mixture

Chemical Name	CAS No	Weight - %	Trade Secret
N-Butyl Methacrylate	97-88-1	<94	*
Trimethylolpropane Trimethacrylate	3290-92-4	<10	*
N, N-Dimethyl-p-Toluidine	99-97-8	<2	*

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

4. FIRST AID MEASURES

First aid measures

Inhalation	Remove victim to fresh air. Keep at rest in a position comfortable for breathing. Seek immediate medical attention if needed.
Eye contact	Rinse immediately with plenty of water, including under the eyelids, for at least 15 minutes. If irritation persists, call a physician immediately.
Ingestion	If ingested, do not induce vomiting. Drink plenty of water or milk immediately. If vomiting, continue to offer water or milk. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately and provide an estimate of when and how much material was ingested. Seek immediate medical attention.
Skin Contact	Wash with soap and water. If irritation, redness or swelling persists, call a physician immediately. Take off contaminated clothing and wash before reuse.

Most important symptoms and effects, both acute and delayed

Symptoms	Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation. May cause an allergic skin reaction.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable: Water spray, chemical foam, carbon dioxide (CO₂), dry chemical

Unsuitable: Do not use water jet.

Specific hazards arising from the chemical

Flammable liquid and vapor. May polymerize on heating. Sealed containers may rupture explosively if hot.

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

Protective equipment and precautions for firefighters

A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Before cleaning any spill or leak, individuals must wear personal protective equipment as required. Remove any contaminated clothing and wash thoroughly before reuse.

Environmental precautions ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Prevent product from entering drains. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

Methods and material for containment and clean-up

Collect spillage. Do not adsorb onto sawdust or other combustible materials. Transfer to a container for disposal or recovery. Use only non-sparking tools.

7. HANDLING AND STORAGE

Precautions for safe handling Do not eat, drink, or smoke at the work place. Wash thoroughly after handling. Avoid breathing vapors. Use in a well-ventilated area. The vapor is heavier than air: beware of pits and confined spaces. Ground container and receiving equipment. Use explosion proof electrical equipment. Use only non-sparking tools. Take precautionary measure against static charge.

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, open flame, hot surfaces – No smoking. Protect from sunlight. Methacrylate stored in bulk quantities must be kept in contact with air (oxygen). Keep at temperature not exceeding 30°C/86 °F. Monomer vapors are uninhabited and may form polymers in vent or flame arresters, resulting in blockage of vents.

Incompatible materials Polymerization catalysts, such as peroxy or azo compounds, strong acids, alkalis and oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH
n-Butyl Methacrylate 97-88-1	STEL: n/a TWA: n/a	n/a	n/a

ACGIH = American Conference of Governmental Industrial Hygienists / OSHA = Occupational Safety and Health Administration
 PEL = Permissible Exposure Levels / STEL – Short Term Exposure Limit / TLV – Threshold Limit Value / TWA = Time Weighted Average

Appropriate engineering controls Do not eat, drink or smoke at the work place. Provide adequate ventilation, including appropriate local extraction, to ensure that the 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.

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

Individual protection measures, such as personal protective equipment

Eye / face protection Depending on the use of this product, safety glasses or goggles may be worn. If necessary, refer to US OSHA 29CFR SS1910.133 or the appropriate standards of Canada or the EC member states. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.

Skin and body protection If anticipated that prolonged and repeated skin contact will occur during use of this product, wear gloves for routine use. If necessary, refer to US OSHA 29CFR SS1910.138 or the appropriate standards of Canada or the EC member states. Wear suitable protective clothing.

Respiratory protection No special respiratory protection is required under typical circumstances of use or handling. If necessary, use only respiratory protection authorized per US OSHA requirement in 29 CFR SS 1910.134, or applicable US state regulations, or the appropriate standards of Canada, its provinces, or the EC member states. VENTILATION: Local exhaust at processing equipment.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Food, beverages and tobacco products should not be carried, stored, or consumed where this material is in use. Wash hands thoroughly before eating, drinking, or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Acrid
Color	Clear to slightly yellow	Odor threshold	Not determined

<u>Property</u>	<u>Values</u>	<u>Remarks / Method</u>
pH	Not determined	
Melting point / freezing point	Not determined	
Boiling point / boiling range	Not determined	
Flash point	51°C / 124°F	
Evaporation rate	Not determined	
Flammability (solid, gas)	Not applicable	
Flammability limits in air		

Upper flammability limit	Not determined
Lower flammability limit	Not determined
Vapor pressure	Not determined
Vapor density	Not determined
Specific gravity	0.910 g/mL
Water solubility	Not determined
Solubility in other solvents	Not determined
Autoignition temperature	Not determined

10. STABILITY AND REACTIVITY

Reactivity Will exothermically polymerize in the presence of initiators.

Chemical stability Stable in the presence of inhibitor.

Possibility of hazardous reactions

Hazardous polymerization Susceptible to polymerization initiated by prolonged storage or the presence of catalyst.

Conditions to avoid Heat and direct sunlight.

Materials to avoid Polymerization catalysts, such as peroxy or azo compounds, strong acids, alkalis and oxidizing agents.

Incompatible materials Oxidizers

Reducing agent

Material has strong solvent properties and can soften paint and rubber.

Hazardous decomposition products Does not decompose up to auto-ignition temperature.

11. TOXICOLOGICAL INFORMATION

Mixture Toxicity No data available

Component Toxicity No data available

Routes of Exposure – No data available

Component information

Chemical Name	ORAL LD50	DERMAL LD50	INHALATION LC50
N-Butyl Methacrylate 97-88-1	>2000 mg/kg	2000 mg/kg	4901 ppm (29 mg/l) 4 h
Trimethylolpropane Trimethacrylate 3290-92-4	>5000 mg/kg (rat)	-	-
N, N-Dimethyl-p-Toluidine 99-97-8	1650 mg/kg (rat)	>2000 mg/kg (rat)	498 mL/m ³ (rat)

Information on physical, chemical and toxicological effects

Inhalation May cause respiratory irritation.

Eye contact Causes severe eye irritation.

Skin contact Causes skin irritation.

Ingestion May be harmful if swallowed.

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 Not classified.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component information N-Butyl methacrylate - Toxic to aquatic life.

Chemical Name	Algae / aquatic plants	Fish	Crustacea
N-Butyl Methacrylate 97-88-1	31.2 mg/l: 72 h selenastrum capricornutum mg/L EC50	11 mg/l: 96 h Pimephales promelas mg/L LC50 flow-through;	25.4 mg/l: 48 h Daphnia magna mg/L EC50
Trimethylolpropane Trimethacrylate 3290-92-4	-	-	-
N, N-Dimethyl-p- Toluidine 99-97-8	-	46-52 mg/l: 96 h Pimephales promelas mg/L LC50 flow-through	-

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Follow all local and national government regulations in disposing material or contaminated packaging.

For U.S. - Dispose of in accordance with federal, state and local regulations.

Contaminated Packaging

Reuse of empty drums or containers is not recommended. Employees should be advised of the potential hazards due to residual material associated with empty containers. Dispose of all empty containers in accordance with local and national government regulations.

14. TRANSPORTATION INFORMATION

DOT For domestic ground shipments, containers of less than 450 L capacity are not regulated by DOT.

UN / ID No	UN1993
Proper shipping name	Flammable liquid, n.o.s. (N-Butyl Methacrylate, stabilized / Trimethylolpropane Trimethacrylate solution)
Hazard Class	3
Packing Group	III

IATA

UN / ID No	UN1993
Proper shipping name	Flammable liquid, n.o.s. (N-Butyl Methacrylate, stabilized / Trimethylolpropane Trimethacrylate solution)
Hazard Class	3
Packing Group	III

IMDG

UN / ID No	UN1993
Proper shipping name	Flammable liquid, n.o.s. (N-Butyl Methacrylate, stabilized / Trimethylolpropane Trimethacrylate solution)
Hazard Class	3
Packing Group	III

15. REGULATORY INFORMATION

International Inventories

TSCA
DSL
EINECS

Listed United States Toxic Substances Control Act, Section 8(b) Inventory
Listed Canadian Domestic Substances List
Listed European Inventory of Existing Chemical Substances

EU Regulations EC No. 1272/2008 (CLP) Classification, Labeling, Packaging
Medical Devices Directive 93/42/EEC - Class I Medical Devices

US Federal Regulations SARA 302 – not listed, Extremely hazardous substance
SARA 311 / 312 Hazard Categories - listed N-Butyl methacrylate 97-88-1
SARA 313 – not listed, N-Butyl methacrylate 97-88-1

US State Regulations California Proposition 65 – Warning. This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin: None

US State Right-to-Know Regulations Not established

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability
	Not determined	Not determined	Not determined
HMIS	Health Hazards	Flammability	Physical Hazards
	2	2	2

Effective Date 23-Mar-2020

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 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