SAFETY DATA SHEETS

This SDS packet was issued with item:

074586426

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

071365550 071365568 071365576 071365618 074585097 074585121 074586301 074586319 074586327 074586376 71365618

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

071386531 071386549 071386556 071390400 074585006 074585014 074585022 074585105 074585113 074585220 074585253 074585287 074585311 074585345 074585378 074585402 074585899 074585915 074585923 074585931 074585949 074586384 074586392 074586400 074586418 074586434 074586467 074586475 074592663

SAFETY DATA SHEET

Issue Date 26-Sept-2014 **Revision Date** 14-July-2015 **Version** 3

1. IDENTIFICATION

Product Identifier

Product Name FLEXACRYL SOFT LIQUID

Other means of identification

SDS# 038

UN/ID No UN1993

Product Code 1103, 1104, 1106, 1107, 1108, 1109, 1123, 1134, 1156

Recommended use of the chemical and restrictions on use

Recommended Use Fabrication of denture relines

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)

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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
Hazardous to the aquatic environment- Acute hazard	Category 2

Signal word Warning

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

Appearance Colorless to slight yellow liquid **Physical state** Liquid **Odor** Acrid

Precautionary Statements – Prevention

P271 Use only outdoors or in a well-ventilated area.
P264 Wash face, hands and any exposed skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P272 Contaminated work clothing should not be allowed out of the workplace.
P261 Avoid breathing dust.
P210 Keep away from heat/sparks/open flames/hot surface. – 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.
P273 Avoid release to the environment.

Precautionary Statements – Response

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.
P303+P361+P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P362 Take off contaminated clothing and wash it before reuse.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P370+P378 In case of fire: Use CO_2, 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.

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

Other Information Harmful to aquatic life.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight - %	Trade Secret
Citric Plasticizer	Proprietary	<50	*
N-Butyl Methacrylate	97-88-1	<50	*
Trimethylolpropane Trimethacrylate	3290-92-4	<5	*
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

General advice	If exposed or concerned, get medical advice or attention.
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. Wash out mouth with water and give 200-300 mL (half pint) of water to drink. Get medical attention. Never give anything by mouth to an unconscious person.
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. Irritating to mouth, throat, and stomach if ingested. May cause irritation to the mucous membranes and upper respiratory tract..

Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing Media
Suitable: Chemical foam, carbon dioxide (CO_2), dry chemical
Unsuitable: Not determined

Specific hazards arising from the chemical
Flammable. Vapors may travel to source of ignition and flash back. Fine mist or sprays may be flammable at temperatures below the flash point. May polymerize on heating. Sealed containers may rupture explosively if hot. Cool containers exposed to flames with water until well after the fire is out.

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 Section 5 Fire-Fighting Measures and Section 7 Handling and Storage before proceeding with clean up. Refer to protective measures listed in sections 7 and 8. Evacuate personnel to safe areas. Ventilate affected area. Wear self-contained breathing apparatus (SCBA).
Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas.

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 Take up with sand or other non-combustible absorbent material and place into containers for later disposal. Clean up material as RCRA Hazardous Waste. Use non-sparking hand tools and explosion-proof electrical equipment.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Do not breathe dust, fume, gas, mist, vapors, or spray. Avoid contact with skin, eyes, or clothing. Wash thoroughly after handling. Keep containers closed when not in use. Ground container and transfer equipment to eliminate static electric sparks. Keep away from heat, sparks, open flame, and hot surfaces. NO SMOKING. Use non-sparking hand tools and explosion proof electrical equipment. Take precautionary measures against static discharges. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Contaminated clothing should not be allowed out of the workplace.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from direct sunlight. Store in accordance with National Fire Protection Association recommendations. Maintain air space inside storage containers. Inhibitor requires air (oxygen) contact to function.

Incompatible materials Oxidizers and reducing agents
Material has strong solvent properties and can soften paint and rubber.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines 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.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Citric Plasticizer	TWA: 5 mg/m^3	TWA: 5 mg/m^3 TWA: 5 mg/m^3 (vacated)	IDLH: 4000 mg/m^3 TWA: 5 mg/m^3

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. Wear coverall chemical splash goggles and face shield when possibility exists for eye and face contact due to splashing or spraying material.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls as appropriate to prevent skin contact. Nitrile rubber is better than PVC.

Respiratory protection None needed under normal use conditions. If the TLV is exceeded, use NIOSH approved organic vapor respirator with a dust/mite pre-filter. Use positive pressure air supplied respirator if there is

any potential for an uncontrolled release, exposure is not known, or any other circumstances where air purifying respirators may not provide adequate protections.

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	Colorless to slightly yellow liquid	**Odor threshold**	Not determined
Color	Clear to slightly yellow		

Property	**Values**	**Remarks / Method**
pH	Not determined	
Melting point / freezing point	-25°C / -13°F	
Boiling point / boiling range	163-164°C / 325-327°F	
Flash point	59°C / 139°F	
Evaporation rate	Not determined	
Flammability (solid, gas)	n/a (liquid)	
Flammability limits in air		
Upper flammability limit	Not established	
Lower flammability limit	Not established	
Vapor pressure	2 mm Hg	@ 20°C
Vapor density	4.9	@15.5°C (Air = 1)
Specific gravity	0.978	
Water solubility	0.36 %	
Solubility in other solvents	Not determined	
Partition coefficient	3.03	
Autoignition temperature	Not established	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic viscosity	Not determined	
Explosive properties	Not determined	
Oxidizing properties	Not determined	

Other information

10. STABILITY AND REACTIVITY

Reactivity Not reactive under normal conditions

Chemical stability Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing

Hazardous polymerization Hazardous polymerization may occur. Monomer vapors are uninhibited and may form polymers in vent or flame arresters, resulting in blockage of vents. Conditions to avoid for hazard polymerization: excessive heat, storage in absence of inhibitor, inadvertent addition of catalyst

Conditions to avoid
Avoid all possible sources of ignition, contamination.

Incompatible materials

Oxidizers. Reducing agent.

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

Hazardous decomposition products If heated to decomposition, CO and CO_2 may be produced.

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. May be harmful in contact with skin.
Ingestion	May be harmful if swallowed.

Component information

Chemical Name	ORAL LD50	DERMAL LD50	INHALATION LC50
Citric plasticizer	6300 mg/kg (rat)	>2000 mg/kg (rabbit)	>15.68 mg/L (rat) 4 h
N-Butyl Methacrylate 97-88-1	16 µg/kg (rat)	10181 mg/kg (rabbit)	4910 ppm (rat) 4 h
Trimethylolpropane Trimethacrylate 3290-92-4	=5660 /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. May cause irritation to the mucous membranes and upper respiratory tract. 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 This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Reproductive toxicity May damage fertility or the unborn child.

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)	4697	mg/kg
ATEmix (dermal)	2098	mg/kg
ATEmix (inhalation-dust/mist)	4998	mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life.

Chemical Name	Algae / aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Citric Plasticizer	0.4: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 1.2: 72 h Pseudokirchneriella subcapitata mg/L EC50	0.31 – 5.45: 96 h Pimephales promelas mg/L LC50 static 0.42 – 1.28: 96 h Lepomis macrochirus mg/L LC50 static 0.71 – 1.2: 96 h Pimephales promelas mg/L LC50 flow-through 1.24 – 5.3: 96 h Oncorhynchus mykiss mg/L LC50 static 1.38 – 1.74: 96 h Lepomis macrochirus mg/L LC50 flow-through > 1.24: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	EC50 = 10.9 mg/L 30 min EC50 = 10.9 mg/L 5 min EC50 =11.1 mg/L 15 min EC50 = 2.2 mg/L 24 h	2.99 48 h Daphnia magna mg/L EC50 Static 3.4: 48 h Daphnia magna mg/L EC50
N-Butyl Methacrylate 97-88-1	57: 96 h Pseudokirchneriella 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 5 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 LC50 160: 96 h Pimephales 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 Pimephales promelas mg/L LC50 flow-through	-	-

Persistence and degradability Material is readily biodegradable. 88% in 28 days

Bioaccumulation This product has moderate potential for bioaccumulation.

Mobility This product is predicted to have moderate mobility in soil.

Chemical Name	Partition coefficient
Citric Plasticizer	5.38
N-Butyl Methacrylate	2.26

Other adverse effects This product is substantially removed in biological treatment process BOD 28 day / DOC = 32.8%.

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. Do not flush to surface or sanitary sewer system Dispose of by incineration or in accordance with local regulations. Do not incinerate closed containers.

Contaminated Packaging Dispose of all empty containers in accordance with local and national government regulations.

Chemical Name	RCRA	RCRA – Basis for Listing	RCRA – D Series Wastes	RCRA – U Series Wastes
Citric Plasticizer	U069	Included in waste stream; F039	-	U069

14. TRANSPORTATION INFORMATION

DOT

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

IATA

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

IMDG

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

15. REGULATORY INFORMATION

International Inventories

DSL Listed Canadian Domestic Substances List
EINECS 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

Chemical Name	CAS	Weight %	SARA 313 Threshold Values %
Citric Plasticizer	Proprietary	<50	1.0

SARA 311 / 312 Hazard Categories

Chemical Name	CWA – Reportable Quantities	CWA – Toxic Pollutants	CWA – Priority Pollutants	CWA – Hazardous Substances
Citric Plasticizer	10 lb.	X	X	X

Chemical Name	Hazardous Substances RQs	CERCLA / SARA RQ	Reportable Quantity (RQ) Final
Citric Plasticizer	10 lb.	-	10 lb. / 4.54 kg

US State Regulations

Chemical Name	California Proposition 65
Citric Plasticizer	Developmental Female Reproductive Male Reproductive

US State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Citric Plasticizer	X	X	X
N-Butyl Methacrylate	X	X	X

16. OTHER INFORMATION

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

Issue Date 26-Sept-2014
Revision Date 14-July-2015
Revision Note Section 2 – Revise classification categories, revise some Hazard Statements and Precautionary Statements, remove pictogram

Information to be updated in due course Hazard pictograms listed in this SDS to be added to product label

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

SAFETY DATA SHEET

Issue Date 26-Sept-2014 **Revision Date** 21-Oct-2015 **Version** 3

1. IDENTIFICATION

Product Identifier

Product Name FLEXACRYL POWDER

Other means of identification

SDS# 001

Product Code 0920, 0923, 0930, 0934, 0950, 0956, 0970, 0980, 1123, 1134, 1156

Recommended use of the chemical and restrictions on use

Recommended Use Fabrication of denture relines

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)

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Fax: +33 476 17 19 82
Email: info@medimark-europe.com

2. HAZARDS IDENTIFICATION

Classification

Skin sensitization	Category 1

Signal word Warning

Hazard statements H317 May cause an allergic skin reaction.

Physical State Powder **Appearance** Fine, pigmented **Odor** Faint odor in bulk

Precautionary Statements – Prevention

P261 Avoid breathing dust, fumes, gas, mist, vapors or spray.
P264 Wash hands and exposed skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements – Response

P302+P352 IF ON SKIN: Wash with soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.

Precautionary Statements – Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight - %	Trade Secret
Polymer	9003-42-3	< 99	*
Benzoyl peroxide	94-36-0	< 2	*

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

4. FIRST AID MEASURES

First aid measures

Inhalation Remove to fresh air. Keep at rest in a position comfortable for breathing, Get medical attention if discomfort persists.

Eye contact Rinse immediately with plenty of water, including under the eyelids, for at least 15 minutes. If irritation persists, get medical advice / attention.

Ingestion 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.

Skin Contact Wash with soap and water. If irritation persists, call a physician. Take off contaminated clothing and wash before reuse.

Most important symptoms and effects, both acute and delayed

Symptoms Eyes, skin and respiratory tract may be irritated by gross overexposure to particulates. Eyes may be red, itchy, irritated or watering from overexposure. Ingestion of large amounts may be irritating if product is swallowed. May cause nausea, headache, vomiting or diarrhea.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable: Water, carbon dioxide (CO_2), dry chemical

Unsuitable: Avoid extinguishing methods which may generate dust clouds. Water stream can disperse dust in air producing a fire hazard and possible explosion hazard if exposed to ignition source.

Specific hazards arising from the chemical

For bulk size: Polymer dust is combustible. The explosive limits of the polymer particles suspended in air are approximately those of coal dust.

Protective equipment and precautions for firefighters

Self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Remove any contaminated clothing and wash thoroughly before reuse.

Methods and material for containment and clean-up

Method for containment Prevent further leakage or spillage if safe to do so.

Method for clean-up Sweep up to avoid slipping hazard. Keep airborne particulates at a minimum when cleaning up spills. Clean up in accordance with all applicable regulations. Wash all affected areas with plenty of warm water and soap.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use only in well-ventilated areas. Avoid contact with skin, eyes or clothing. Avoid breathing dust or fume. Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed to prevent water absorption and contamination. Store in a dry, cool and well-ventilated place away from direct sunlight or other sources of light or intense heat. Temperature not to exceed 35°C.

Packaging materials Keep in original container.

Incompatible materials Strong oxidizing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Benzoyl peroxide 94-36-0	TWA: 5 mg/m^3	TWA: 5 mg/m^3 TWA: 5 mg/m^3 (vacated)	IDLH: 1500 mg/m^3 TWA: 5 mg/m^3

Appropriate engineering controls Apply technical measures to comply with the occupational exposure limits. When working with large quantities of product, provide adequate ventilation (e.g. local exhaust ventilation, fans). Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes. Use good local exhaust at processing equipment, including buffers, sanders, grinders and polishers.

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 29 CFR SS1910.133, Canadian standards or the European Standard EN 166. 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 industrial use. If necessary, refer to US OSHA 29 CFR SS1910.138 or the appropriate standards of Canada or the EC member states.

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, EC member states or Australia. VENTILATION: Local exhaust at processing equipment.

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	Powder	**Odor**	Faint odor in bulk
Appearance	Fine	**Odor threshold**	Not determined
Color	Pigmented		

Property	**Values**	**Remarks / Method**
pH	Not determined	
Melting point / freezing point	Not determined	
Boiling point / boiling range	Not applicable	
Flash point	304°C / 579°F	
Evaporation rate	Not applicable	
Flammability (solid, gas)	Non-flammable	
Flammability limits in air		
Upper flammability limit	Not applicable	
Lower flammability limit	Not applicable	
Vapor pressure	Not applicable	
Vapor density	Not applicable	
Specific gravity	Not determined	
Water solubility	Insoluble in water	
Solubility in other solvents	Not determined	
Partition coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic viscosity	Not determined	
Explosive properties	Not determined	
Oxidizing properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity	Not reactive under normal conditions
Chemical stability	Stable under recommended storage conditions
Possibility of hazardous reactions	None under normal processing
Hazardous polymerization	Does not occur.
Conditions to avoid	Heating above 240°C / 464°F
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	Methacrylate monomer, oxides of carbon when burned

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposures

Product information	This product has not been tested on animals to obtain toxicology data.
Inhalation	Persons with impaired lung function or asthma-like conditions may experience additional breathing difficulties.
Eye contact	Avoid contact with eyes.
Skin contact	May be irritating to skin in some sensitive individuals, especially after prolonged or repeated contact.
Ingestion	Large amounts may cause nausea, headache, vomiting or diarrhea.

Component information

Chemical Name	ORAL LD50	DERMAL LD50	INHALATION LC50

Benzoyl peroxide 94-36-0	6400 mg/kg (rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms See Section 4.

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

Carcinogenicity Not classifiable as a human carcinogen (IARC group 3)

Numerical measures of toxicity – Product Not determined

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

ATEmix (oral) 6250 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity There is no specific data available for this product; however, very large releases may be harmful or fatal to overexposed aquatic life.

Persistence and degradability Not determined

Bioaccumulation Not determined

Mobility Not determined

Other adverse effects Not determined

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

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

Chemical Name	California Hazardous Waste Status
Benzoyl peroxide 94-36-0	6400 mg/kg (rat)

Contaminated Packaging For bulk only: 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 properly in accordance with federal, state and local regulations.

Chemical Name	California Hazardous Waste Status
Benzoyl peroxide 94-36-0	Toxic, Ignitable, Reactive

14. TRANSPORTATION INFORMATION

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA For use in FDA regulated products only United States Toxic Substances Control Act, Section 8(b) Inventory

DSL Listed Canadian Domestic Substances

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

US Federal Regulations

Chemical Name	CAS	Weight %	SARA 313 - Threshold Values %
Benzoyl peroxide	94-36-0	1	1.0

US State Regulations

US State Right-to-know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Benzoyl peroxide 94-36-0	X	X	X

16. OTHER INFORMATION

HMIS	Health Hazards	Flammability	Physical Hazards
	1	1	0

Issue Date 26-Sept-2014
Revision Date 21-Oct-2015
Revision Note Update section 2 Hazardous Identification

Information to be updated in due course Hazard pictograms listed in this SDS to be added to product label

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

SAFETY DATA SHEET

Issue Date 26-Sept-2014 **Revision Date** 14-July-2015 **Version** 3

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 chemical and restrictions on use

Recommended Use Fabrication of denture relines

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)

Authorized European Representative MediMark® Europe SARL
11, rue Emile Zola – BP 2332
38033 Grenoble Cedex 2
France
Tel: +33 476 86 43 22
Fax: +33 476 17 19 82
Email: info@medimark-europe.com

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
Hazardous to the aquatic environment- Acute hazard	Category 2

Signal word Warning

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

Appearance Colorless to slightly yellow **Physical state** Liquid **Odor** Acrid

Precautionary Statements – Prevention

P271 Use only outdoors or in a well-ventilated area.
P264 Wash face, hands and any exposed skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P272 Contaminated work clothing should not be allowed out of the workplace.
P261 Avoid breathing dust.
P210 Keep away from heat/sparks/open flames/hot surface. – 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.
P273 Avoid release to the environment.

Precautionary Statements – Response

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.
P303+P361+P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P362 Take off contaminated clothing and wash it before reuse.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P370+P378 In case of fire: Use CO_2, 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.

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

Other Information Harmful to aquatic life.

3. COMPOSITION / INFORMATION ON INGREDIENTS

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 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. Wash out mouth with water and give 200-300 mL (half pint) of water to drink. Get medical attention. Never give anything by mouth to an unconscious person.
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. May cause irritation to the mucous membranes and upper respiratory tract. 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: Chemical foam, carbon dioxide (CO_2), dry chemical
Unsuitable: Not determined.

Specific hazards arising from the chemical
Vapors may travel to source of ignition and flash back. Fine mist or sprays may be flammable at temperatures below the flash point. Sealed containers may rupture explosively if hot. Cool containers exposed to flames with water until well after the fire is out.

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	Refer to protective measures listed in Sections 7 and 8. Review Fire Fighting Measures and Handling (Personnel) sections before proceeding with clean-up. Ventilate affected area. Wear self-contained breathing apparatus (SCBA). Evacuate personnel to safe area.
Environmental precautions	Do not allow into any sewer, on the ground or any body of water.

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 far ahead of liquid spill for later disposal.

Method for clean-up Take up with sand, earth or other non-combustible absorbent material. Clean-up material as a RCRA Hazardous Waste. Use non-sparking hand tools and explosion-proof electrical equipment.

7. HANDLING AND STORAGE

Precautions for safe handling

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

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from direct sunlight. Store in accordance with National Fire Protection Association recommendations. Maintain air space inside storage containers. Inhibitor requires air (oxygen) contact to function.

Incompatible materials Oxidizers, reducing agent
Material has strong solvent properties and can soften paint and rubber.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines The following information is given as general guidance.

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.

Skin and body protection Wear impervious protective clothing, including: booths, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Nitrile rubber is better than PVC.

Respiratory protection Use NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure is not known or any other circumstances where air purifying respirators may not provide adequate protections.

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 to slightly yellow		

Property	Values	Remarks / Method
pH	Not determined	
Melting point / freezing point	Not determined	
Boiling point / boiling range	163-164°C / 325-327° F	
Flash point	51°C / 124°F	
Evaporation rate	Not determined	
Flammability (solid, gas)	n/a (liquid)	
Flammability limits in air		
Upper flammability limit	8.0%	
Lower flammability limit	2.0%	
Vapor pressure	28mm Hg	@ 20°C
Vapor density	4.9	@15.5°C (Air = 1)
Specific gravity	0.910	
Water solubility	0.36%	
Solubility in other solvents	Not determined	
Partition coefficient	Not determined	
Autoignition temperature	296°C / 564.8°F	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic viscosity	Not determined	
Explosive properties	Not determined	
Oxidizing properties	Not determined	

Other information

10. STABILITY AND REACTIVITY

Reactivity Not reactive under normal conditions

Chemical stability Stable under recommended storage conditions

Possibility of hazardous reactions None under normal processing

Hazardous polymerization Hazardous polymerization may occur. Monomer vapors are uninhibited and may form polymers in vent or flame arresters, resulting in blockage of vents. Conditions to avoid for hazardous polymerization: excessive heat, storage in absence of inhibitor, inadvertent addition of catalyst.

Conditions to avoid
Heat
All possible sources of ignition
Contamination

Incompatible materials
Oxidizers
Reducing agent
Material has strong solvent properties and can soften paint and rubber.

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
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 /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. May cause irritation to the mucous membranes and upper respiratory tract. 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)	3864	mg/kg
ATEmix (dermal)	10834	mg/kg
ATEmix (inhalation-dust/mist)	5225	mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life.

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 LC50 160: 96 h Pimephales 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. 88% in 28 days

Bioaccumulation This product has moderate potential for bioaccumulation.

Mobility The product is predicted to have moderate mobility in soil.

Chemical Name	Partition coefficient
N-Butyl Methacrylate	2.26

Other adverse effects This product is substantially removed in biological treatment processes BOD 28 day/DOC=32.8%

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. Do not flush to surface or sanitary sewer system Dispose of by incineration or in accordance with local regulations. Do not incinerate closed containers.

Contaminated Packaging Dispose of all empty containers in accordance with local and national government regulations.

14. TRANSPORTATION INFORMATION

Note Based on package size, product may be eligible for limited quantity exception

DOT

UN / ID No	UN1993
Proper shipping name	N-Butyl Methacrylate, stabilized / Trimethylolpropane Trimethacrylate solution
Hazard Class	3
Packing Group	III

IATA

UN / ID No	UN1993
Proper shipping name	N-Butyl Methacrylate, stabilized / Trimethylolpropane Trimethacrylate solution
Hazard Class	3
Packing Group	III

IMDG

UN / ID No	UN1993
Proper shipping name	N-Butyl Methacrylate, stabilized / Trimethylolpropane Trimethacrylate solution
Hazard Class	3
Packing Group	III

15. REGULATORY INFORMATION

International Inventories

DSL	Listed	Canadian Domestic Substances List
EINECS	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 311 / 312 Hazard Categories

US State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Butyl methacrylate 97-88-1	X	X	X

16. OTHER INFORMATION

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

Issue Date 26-Sept-2014
Revision Date 14-July-2015
Revision Note Section 2 – revise classification categories, revise some Hazard Statements and Precautionary Statements, remove pictogram

Information to be updated in due course Hazard pictograms listed in this SDS to be added to product label.

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