

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



Effective Date 23-Mar-2020

SAFETY DATA SHEET

Version 4

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 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
 Emergency Telephone (INFOTRAC) +1-352-323-3500 (International)
 800-535-5053 (North America)

Authorized European Representative

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 11 rue Emile Zola. BP 2332
 38033 Grenoble Cedex 2
 France
 Tel: +33 4 76 86 43 22
 Fax: +33 4 76 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.
 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 |
|------------------------------------|-------------|------------|--------------|
| 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

| | |
|--------------|--|
| 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. |
|----------|---|

Indication of any immediate medical attention and special treatment needed

| | |
|--------------------|------------------------|
| Note to physicians | Treat symptomatically. |
|--------------------|------------------------|

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 uninhibited 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 | 59°C / 139°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 | 0.978 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

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

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

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

TSCA
DSL
EINECS

Listed
Listed
Listed

United States Toxic Substances Control Act, Section 8(b) Inventory
Canadian Domestic Substances List
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

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** +1 847-215-6622**Emergency Telephone (INFOTRAC)** +1 352-323-3500 (International)
800-535-5053 (North America)**Authorized European Representative**MediMark® Europe SARL
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Tel: +33 476 86 43 22
Fax: +33 476 17 19 82
Email: info@medimark-europe.com

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

| | |
|--------------------|---|
| Skin sensitization | 1 |
|--------------------|---|

Signal word Warning**Hazard statements** H317 May cause an allergic skin reaction.**Physical State** Powder **Appearance** Fine, white or pink **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 Skin contact may aggravate an existing dermatitis. Direct contact with eyes may cause temporary irritation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable: Water, chemical (alcohol-resistant) foam, dry chemical, or carbon dioxide (CO₂),

Unsuitable: Water may not be effective in extinguishing this fire.

Specific hazards arising from the chemical

For bulk size: Polymers are combustible dusts, care should be taken to avoid creating explosive concentrations in the air. Follow grounding and bonding procedures.

Special Fire Fighting Procedures:

Avoid extinguishing methods, which may generate dust clouds. Water stream can disperse dust into air producing a fire hazard and possible explosion hazard if exposed to ignition source. Firefighters should wear self-contained breathing apparatus.

Protective equipment and precautions for firefighters

For bulk size: Polymer dust is combustible. The explosive limits of the polymer particles suspended in air are approximately those of coal dust. Polymers are sensitive to static charge, follow grounding and bonding procedures. Polymers are not sensitive to mechanical impacts.

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. Dike and contain spill with inert material, sand or earth. May contaminate water supply. |
| 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 container 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 |

| | |
|--|---|
| <u>Appropriate engineering controls</u> | 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 | | |
| Color | White or pink | | |

| <u>Property</u> | <u>Values</u> |
|----------------------------|----------------|
| Flash point | 303°C / 577°F |
| Flammability limits in air | |
| Upper flammability limit | Not applicable |
| Lower flammability limit | Not applicable |
| Specific gravity | Not determined |

10. STABILITY AND REACTIVITY

| | |
|---|--|
| <u>Reactivity</u> | Not reactive under normal conditions |
| <u>Chemical stability</u> | Stable under recommended storage conditions |
| <u>Possibility of hazardous reactions</u> | None under normal processing |
| Hazardous polymerization | Does not occur. |
| <u>Incompatible materials</u> | Strong oxidizing agents |
| <u>Hazardous decomposition products</u> | Methacrylate monomer, oxides of carbon when burned |

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposures

| | |
|----------------------------|---|
| <u>Product information</u> | This product has not been tested on animals to obtain toxicology data. |
| Inhalation | Not expected to be an inhalation hazard under normal conditions of intended use |
| Eye contact | Avoid contact with eyes. |
| Skin contact | Avoid contact with skin. |
| Ingestion | Do not taste or swallow. |

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

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

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.

| | |
|--------------------------------------|----------------|
| <u>Persistence and degradability</u> | Not determined |
| <u>Bioaccumulation</u> | Not determined |
| <u>Mobility</u> | Not determined |
| <u>Other adverse effects</u> | Not determined |

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

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

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.

| |
|---------------------------------------|
| 14. TRANSPORTATION INFORMATION |
|---------------------------------------|

| | |
|--------------------|---------------|
| <u>DOT</u> | Not regulated |
| <u>IATA</u> | Not regulated |
| <u>IMDG</u> | Not regulated |

| |
|-----------------------------------|
| 15. REGULATORY INFORMATION |
|-----------------------------------|

International Inventories

| | |
|------------|---|
| Canada DSL | Listed |
| EINECS | This product is a medical device and not subject to chemical notification requirements. |

US Federal Regulations

TSCA This product is an FDA regulated device and not subject to TSCA regulations.
 SARA 302 – Extremely Hazardous – Not Listed
 SARA 311 / 312 Hazard Categories – This product is an FDA regulated device and not subject to reporting requirements.
 SARA 313 – Toxic Chemicals, component Benzoyl peroxide 94-36-0 Listed

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

| |
|------------------------------|
| 16. OTHER INFORMATION |
|------------------------------|

| HMIS | Health Hazards | Flammability | Physical Hazards |
|------|----------------|--------------|------------------|
| | 1 | 1 | 0 |

Effective Date 28-Jan-2021

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End of Safety Data Sheet



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
Emergency Telephone (INFOTRAC) +1-352-323-3500 (International)
800-535-5053 (North America)

Authorized European Representative

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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. |
|-----------------|---|

Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|------------------------|
| Note to physicians | Treat symptomatically. |
|---------------------------|------------------------|

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