

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

074586376

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

071365568 074585097 074585121 074586301 074586319

**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).**

074585105 074585113 074585220 074585253 074586384 074586392 074586400 074586418 074586426 074592663



# 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

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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 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<sub>2</sub>, 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

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | 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. |
| <b>Eye contact</b>  | 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.   |
| <b>Ingestion</b>    | 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.   |
| <b>Skin Contact</b> | 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

|                 |   |
|-----------------|---|
| <b>Symptoms</b> | 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

|                           |                        |
|---------------------------|------------------------|
| <b>Note to physicians</b> | Treat symptomatically. |
|---------------------------|------------------------|

## 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

**Suitable:** Chemical foam, carbon dioxide (CO<sub>2</sub>), 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.

|   |               |
|---|---------------|
| <b>Hazardous Combustion Products:</b>   | Carbon oxides |
| <b>Sensitivity to Static Discharge:</b> | 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

|  |   |
|--|---|
| <b>Personal precautions</b>                              | 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. |
| <b>Environmental precautions</b>                         | Do not allow into any sewer, on the ground or any body of water.  |
| <b>Methods and material for containment and clean-up</b> |   |
| <b>Method for containment</b>                            | ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).<br>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

|                       |                          |                       |                |
|-----------------------|--------------------------|-----------------------|----------------|
| <b>Physical state</b> | Liquid                   | <b>Odor</b>           | Acrid          |
| <b>Appearance</b>     | Liquid                   | <b>Odor threshold</b> | Not determined |
| <b>Color</b>          | Clear to slightly yellow |                       |                |

| <u>Property</u>                | <u>Values</u>          | <u>Remarks / Method</u> |
|--------------------------------|------------------------|-------------------------|
| 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**

|                     |                               |
|---------------------|-------------------------------|
| <b>Inhalation</b>   | Harmful if inhaled.           |
| <b>Eye contact</b>  | Causes severe eye irritation. |
| <b>Skin contact</b> | Causes skin irritation.       |
| <b>Ingestion</b>    | May be harmful if swallowed.  |

## Component information

| Chemical Name                                      | ORAL LD50        | DERMAL LD50          | INHALATION LC50                  |
|--|------------------|----------------------|----------------------------------|
| N-Butyl Methacrylate<br>97-88-1                    | 16 g/kg (rat)    | 10181 mg/kg (rabbit) | 4910 ppm (rat) 4 h               |
| Trimethylolpropane<br>Trimethacrylate<br>3290-92-4 | =5660 /kg (rat)  | = 16 mL/kg (rabbit)  | -                                |
| N, N-Dimethyl-p-Toluidine<br>99-97-8               | 1650 mg/kg (rat) | -                    | 1400 mg/m <sup>3</sup> (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<br>97-88-1                    | 57: 96 h<br>Pseudokirchneriella<br>subcapitata mg/L EC50 | 11: 96 h Pimephales promelas mg/L LC50<br>flow-through;  | EC50 = 37 mg/L 5<br>min<br>EC50 = 49 mg/L 15<br>min<br>EC50 = 55 mg/L 30<br>min<br>EC50 > 253.6 mg/L<br>18 h | 32: 48 h Daphnia magna<br>mg/L EC50 |
| Trimethylolpropane<br>Trimethacrylate<br>3290-92-4 | -  | 144: 96 h Oncorhynchus mykiss LC50<br>160: 96 h Pimephales promelas mg/L LC50<br>112: 96 h Lepomis macrochirus mg/L LC50 | -  | -                                   |
| N,N-Dimethyl-p-<br>Toluidine<br>99-97-8            | -  | 42-50.5: 96 h Pimephales promelas mg/L<br>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<br>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.

### 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