

SAFETY DATA SHEETS

This SDS packet was issued with item:

074585287

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 071365576 071365618 074586327 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 074585311
074585345 074585378 074585402 074585899 074585915 074585923 074585931 074585949 074586400 074586418
074586426 074586434 074586467 074586475



SAFETY DATA SHEET

Issue Date 26-Sept-2014

Revision Date

Version 1

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)

2. HAZARDS IDENTIFICATION

Classification

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

Signal word

Warning

Hazard statements

May cause an allergic skin reaction



Physical State Powder

Appearance Fine, white or pink

Odor Faint odor in bulk

Precautionary Statements – Prevention

Avoid breathing dust, fumes, gas, mist, vapors or spray.

Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves.

Precautionary Statements – Response

If on skin, wash with plenty of soap and water.
If skin irritation or rash occurs, get medical advice / attention.
Wash contaminated clothing before reuse.

Precautionary Statements – Disposal

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

Hazards not otherwise classified (HNOC) Not applicable

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.

Environmental precautions See Section 12 for additional ecological information.

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. Preferable storage 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 | White or pink | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks / Method</u> |
|--------------------------------|--------------------|-------------------------|
| pH | Not determined | |
| Melting point / freezing point | Not determined | |
| Boiling point / boiling range | Not applicable | |
| Flash point | 304°C / 580°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

| | |
|--|---|
| <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>Conditions to avoid</u> | 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 Disposal should be in accordance with applicable regional, national and local laws and regulations.

| 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

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

Revision Note

Disclaimer

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

End of Safety Data Sheet



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)

Authorized European Representative

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11, rue Emile Zola – BP 2332
38033 Grenoble Cedex 2
France
Tel: +33 476 86 43 22
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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 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 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.

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 (CO₂), 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 CO₂ 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