

MATERIAL SAFETY DATA SHEET

Date Issued: 12/18/2008

MSDS No: LS1001

TruAcrylic™ Monomer Orthodontic Acrylic Liquids

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TruAcrylic™ Monomer Orthodontic Acrylic Liquids

PRODUCT DESCRIPTION: Colored Monomer

PRODUCT CODE: PRP61XX-08; PO33-200XX; PO33-19822/P; PO33-19822/C

CHEMICAL FAMILY: Methacrylate

MOLECULAR FORMULA: Not Available

GENERIC NAME: Orthodontic Acrylic Liquid

2. COMPOSITION / INFORMATION ON INGREDIENTS

| INGREDIENT(S) | CAS | % BY WEIGHT |
|------------------------------|----------|-------------|
| Methyl Methacrylate | 80-62-6 | 60 - 100 |
| Other Esther Addducts | NR | < 0.1 - 1 |
| Inhibitor: Hydroquinone (HQ) | 123-31-9 | < 0.1 - 1 |

See Section 8 for Exposure Limits

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Liquid - various colors

POTENTIAL HEALTH EFFECTS

EYES: Severely irritating possible corneal injury.

SKIN: Severely irritating to the skin.

INHALATION: Vapor or mist can irritate the nose and throat. Extended exposure will lead to headache, nausea, drowsiness and unconsciousness.

HEALTH HAZARDS: DELAYED EFFECTS: Prolongs or repeated exposure can cause liver and kidney damage and allergic reaction to skin.

4. FIRST AID MEASURES

EYES: IMMEDIATELY get under a safety shower. Flush eyes with water while removing contaminated clothing and flooding exposed skin areas with water. Seek medical attention.

SKIN: Remove contaminated clothing promptly and wash affected skin areas with soap and water.

INGESTION: If swallowed, dilute by giving 2 glasses of water to drink. Seek medical attention. Never give anything by mouth to an unconscious person.

INHALATION: Move subject to fresh air. Give Artificial respiration if breathing has stopped. Seek medical attention.

5. FIRE FIGHTING MEASURES

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FLASHPOINT AND METHOD: 49F SFCC

FLAMMABLE LIMITS: 2.12% to 12.5%

AUTOIGNITION TEMPERATURE: 815F

EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide, dry chemical or water spray when fighting fires involving this material.

EXPLOSION HAZARDS: Heated sealed containers can explode.

FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear. Use water to cool containers. Fight fire from protected location. EXPLOSION HAZARD

FIRE FIGHTING EQUIPMENT: Wear self-contained breathing apparatus

HAZARDOUS DECOMPOSITION PRODUCTS: Heat can cause polymerization.

6. ACCIDENTAL RELEASE MEASURES

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.

LAND SPILL: Spills on porous surfaces can contaminate groundwater.

GENERAL PROCEDURES: Keep spectators away. Eliminate ignition sources. Use self-contained breathing apparatus (pressure - demand, MSHA/NIOSH approved), impervious clothing and boots. Dike and contain spill with inert material (e.g. sand, earth). Transfer liquid to containers for recovery or disposal and solid diking material to separate containers for disposal. Contaminated monomer may be unstable. Add extra inhibitor to prevent polymerization.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Ground all containers when transferring material. It is advisable to use material within 6 months. Material stored in bulk should be tested for stability every month; drums and pails every 3 months

HANDLING: Keep away from heat and flame.

STORAGE: Store out of direct sunlight at ambient temperatures. Limit indoor storage of flammable liquids to approved areas equipped with automatic sprinklers. Leave air space over liquid surface in all containers. It is advisable to use material within six months. Monitor inhibitor level during storage using CM-18. Materials stored in bulk should be tested for stability every month; drums and pails every three months.

STORAGE TEMPERATURE: Maximum storage temperature is ambient. Monomer stability is a logarithmic function of time vs. temperature. Stability is also dependent on inhibitor concentration, the presence of air and type of monomer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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EXPOSURE GUIDELINES

| HAZARDOUS COMPONENTS | | | | | |
|---|------|-----------------|-------------------|-----------|-------------------|
| | | EXPOSURE LIMITS | | | |
| | | OSHA PEL | | ACGIH TLV | |
| Chemical Name | | ppm | mg/m ³ | ppm | mg/m ³ |
| Methyl Methacrylate | TWA | 100 ppm | | 100 ppm | |
| | STEL | [1] | [1] | [1] | [1] |
| Footnotes: 1. Not Established | | | | | |

ENGINEERING CONTROLS: MECHANICAL local exhaust ventilation at point of contaminant release. Use local exhaust ventilation with a minimum capture velocity of 100 ft/min (30 m/min) at point of monomer evolution.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Use chemical splash goggles (AVSI Z-87.1 or approved equivalent).

SKIN: Impervious gloves

RESPIRATORY: None required if good ventilation is maintained. Otherwise, wear self-contained breathing apparatus (pressure demand, MSHA/NIOSH approved or equivalent)

PROTECTIVE CLOTHING: Impervious clothing and boots.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

COMMENTS: RECOMMENDED WORK PLACE EXPOSURE LIMITS

TWA - STEL + 75ppm methyl Methacrylate; 4 mg/m³HQ

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Acrid fruity odor

APPEARANCE: liquid

COLOR: Various colors

VAPOR PRESSURE: 29 @ 68F

VAPOR DENSITY: 3.5 (Air=1)

BOILING POINT: 214F

FREEZING POINT: -54F

SOLUBILITY IN WATER: Moderate 1.5%

EVAPORATION RATE: Greater than >1

SPECIFIC GRAVITY: (H₂O = 1) 0.94

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VISCOSITY: 0.53 cps

10. STABILITY AND REACTIVITY

STABILITY: Stable.

POLYMERIZATION: May occur

CONDITIONS TO AVOID: Heat, Aging, Contamination, Oxygen-Free atmosphere and sunlight.

HAZARDOUS DECOMPOSITION PRODUCTS: NA = Not Applicable

INCOMPATIBLE MATERIALS: Other oxidizing or reducing agents, acids and bases, UV light, contamination

11. TOXICOLOGICAL INFORMATION

ACUTE

| Chemical Name | ORAL LD ₅₀ (rat) | DERMAL LD ₅₀ (rabbit) | INHALATION LC ₅₀ (rat) |
|---------------------|-----------------------------|----------------------------------|-----------------------------------|
| Methyl Methacrylate | 5000 mg/kg (Rat) | 5000 mg/kg (Rabbit) | 29.8 mg/l (Rat) |

DERMAL LD₅₀: 35 500 mg/kg (rabbit)

ORAL LD₅₀: 7900 mg/kg (rat)

INHALATION LC₅₀: > 12500 to 16,500 ppm for 0.5 hours

NOTES: Human Patch Test. About 1/3 of 50 subjects developed a mild erythema at the site of application. 20% of subjects showed evidence of sensitivity when tested 10 test later.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Not Available

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Incinerate liquid and the contaminated diking material, in accordance with state and federal regulations.

RCRA/EPA WASTE INFORMATION: When discarded, this material is a hazardous waste.

RCRA HAZARD CLASS: RCRA #D-001 (ignitable); reportable quantity 1000 lbs. (40 CFR Part 302) "Superfund".

14. TRANSPORT INFORMATION

COMMENTS: None Reported

15. REGULATORY INFORMATION

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COMMENTS Not Available

16. OTHER INFORMATION

REASON FOR ISSUE: New MSDS Format

APPROVED BY: J. Hutchins **TITLE:** QA/RA Director

PREPARED BY: T. Swan

INFORMATION CONTACT: 1-800-999-3161

REVISION SUMMARY: New MSDS

GENERAL STATEMENTS: Footnote to Section 3 : NR= Not Required

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