SAFETY DATA SHEETS

This SDS packet was issued with item:

074593844

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

074593356 074593869 074594313 074594321 074594412 074594420

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).

074598058 070548214 074597944

ACTIO MSDS ID: 31075

View Section : 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

EC Directive Pictograms

SECTION 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION (N/A)

Product Name:	**Jet Liquid - Ortho-Jet, Ortho-Jet BCA**
Address:	175 MESSNER DRIVE WHEELING, IL 60090 U.S.A.
	EMERGENCY CONTACT: INFOTRAC 24 HOURS CHEMICAL RESPONSE SYSTEM: (800) 535-5053 or (352) 323-3500
Business Phone:	(800) 222-5264 or (847) 215-6622
Revision Date:	03/23/10 Rev. 12
	HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) RATING: PERSONAL PROTECTIVE EQUIPMENT – Gloves and safety glasses or chemical splash goggles.
Product Codes:	1403, 1404, 1406, 1407, 148, 1409, 1412, 1412G, 1484, 1484EP, 1484LR, 1484U, 1493, 1493AS, 1303, 1304, 1306, 1307, 1308, 1309, 1323, 1334, B1303, B1304, B1306, B1323, B1334, B1356

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SECTION 2 : COMPOSITION, INFORMATION ON INGREDIENTS : (N/A)

Ingredient Name	CAS#	Ingredient Percent
Methyl Methacrylate	80-62-6	> 95%
EINECS:	201-297-1	
EC Index Number:	1	
Hazard Symbols:	F, Xi	
Risk Phrases:	11; 36/37/38; 43	
N,N-dimethyl-p-toluidine	99-97-8	< 2%
EC Index Number:	1	
Hazard Symbols:	T	
Risk Phrases:	23/24/25; 33; 52/53	

CHEMICAL NATURE: Methyl Methacrylate: CAS Number – 80-62-6 EINECS – 201-297-1

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SECTION 3 : HAZARDS IDENTIFICATION : (N/A)

Emergency Overview: Highly flammable.

Applies to All Ingredients :

Potential Health Effects: Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact. High atmospheric concentrations may lead to irritation of the respiratory tract and anesthetic effects. Repeated and/or prolonged contact may cause dermatitis.

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SECTION 4 : FIRST AID MEASURES : (N/A)

Eye Contact: Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.

Skin Contact: Remove contaminated clothing. Wash skin immediately with water. If symptoms (irritation or blistering) occur obtain medical attention.

Inhalation: Remove patient from exposure, keep warm and at rest. Obtain immediate medical attention.

Ingestion: If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk immediately. Never give anything by mouth to an unconscious person. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. Obtain immediate medical attention.

CLOTHING: Remove contaminated clothing, wash thoroughly before reuse.

TREATMENT: Treat symptoms conventionally, after thorough decontamination.

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SECTION 5 : FIRE FIGHTING MEASURES : (N/A)

Flash Point:	11.5 deg C (52.7 deg F)
Flash Point Method:	TCC
Upper Flammable or Explosive Limit:	APPROX.: 12.5%
Lower Flammable or Explosive Limit:	APPROX.: 2.12%
Auto Ignition Temperature:	421 deg C (790 deg F)
Extinguishing Media:	Chemical foam, carbon dioxide, dry chemical.
Fire Fighting Instructions:	Highly flammable. When involved in a fire, this product may ignite readily and decompose to produce carbon oxides. Vapors of this product are heavier than air and may travel to a source of ignition and flash back to a leaking or open container. Do not enter fire area without proper protection. Fight fire from a safe location. Heat/impurities may cause pressure to build and/or rupture closed containers, spreading fire, increasing risk of burns/injuries.
Fire Fighting Equipment:	A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions.
Sensitivity to Impact:	SENSITIVE TO MECHANICAL IMPACT: No
Static Discharge Effects:	SENSITIVE TO STATIC DISCHARGE: Yes
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	Health: 2
	Flammability: 3
	Reactivity: 2
	Other:
Unusual Fire Hazards:	FIRE AND EXPLOSION HAZARDS: For bulk size > 1L – High temperatures,

inhibitor depletion, accidental impurities, or exposure to radiation or [illegible] may cause spontaneous polymerizing reaction generating heat/pressure. Closed containers may rupture or explode during a runaway polymerization. Use a water spray or fog to reduce or direct vapors. Water may not be effective in actually extinguishing a fire involving this product.

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SECTION 6 : ACCIDENTAL RELEASE MEASURES : (N/A)

Personal Precautions:	Eliminate sources of ignition. Ensure suitable personal protection (including respiratory protection) during removal of spillages.
Spill Cleanup Measures:	Prevent entry into drains. Adsorb spillages onto sand, earth or any suitable adsorbent material. Do not adsorb onto sawdust or other combustible materials. Use only non-sparking tools for recovery and cleanup. Maximize ventilation (open doors and windows) and secure all sources of ignition. Transfer to a container for disposal or recovery. Wash all affected areas with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

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SECTION 7 : HANDLING and STORAGE : (N/A)

Handling:	PRECAUTIONS FOR HANDLING: Observe precautions found on the label. Close container after each use. Ground all metal containers when transferring. Use explosion-proof equipment. Avoid contact with skin and eyes. Avoid inhalation of high concentration of vapors. Use only in well ventilated areas. The vapor is heavier than air; beware of pits and confined spaces. Take precautionary measures against static discharges.
Storage:	Keep only in original container. Store in cool, dry place away from heat, sparks, flame and direct sunlight, other light sources, or sources of intense heat. Keep container closed to prevent water absorption and contamination. Keep away from sources of ignition – No Smoking. IMPORTANT: Methacrylate stored in bulk must be kept in contact with air (oxygen). Monomer vapors are uninhibited and may form polymers in vent or flame arresters, resulting in blockage of vents. STORAGE TEMPERATURE: Preferably not exceeding 25 deg C.
Hygiene Practices:	Avoid contact with skin, eyes, clothing, and prolonged contact with the product. Wash face and hands thoroughly with the soap and water after use and before eating, drinking, smoking or applying cosmetics. Do not eat, drink or smoke while handling product. IMPORTANT: Methacrylate stored in bulk must be kept in contact with air (oxygen). Monomer vapors are uninhibited and may form polymers in vent or flame arresters, resulting in blockage of vents.

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SECTION 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION : (N/A)

Ventilation System:	Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.
Personal Protective Equipment Routine Handling:	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.
Hand Protection Description:	GLOVES: If anticipated that prolonged & repeated skin contact will occur during

	use of this product, wear chemical resistant gloves for routine industrial use. If necessary, use only protection authorized per U.S. OSHA's requirement in 29 CFR SS 1910.138 or other appropriate governing standard.
Eye/Face Protection:	Depending on the use of this product, splash or safety glasses may be worn. If necessary, use only protection authorized per U.S. OSHA's requirement in 29 CFR SS 1910.133 or other appropriate governing standard. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.
Protective Clothing/Body Protection:	Wear suitable protective clothing.
Respiratory Protection:	Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely. A suitable mask with filter type A may be appropriate. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR SS 1910.134 or other appropriate governing standard.

Ingredient Guidelines

Ingredient: Methyl Methacrylate

Guideline Type:	Manufacturer Exposure Limit
Guideline Information:	100 ppm
Guideline Type:	ACGIH TLV-TWA
Guideline Information:	100 ppm
Guideline Type:	OSHA PEL-TWA
Guideline Information:	100 ppm

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SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES : (N/A)

Physical State/Appearance:	FORM: Liquid
Color:	Clear
Odor:	Characteristic strong and acrid
Vapor Pressure:	(29 mmHg): 20 deg C (68 deg F)
Vapor Density:	For Methyl Methacrylate: (AIR=1): 3.5 at 15.5 deg C (60 deg F)
Boiling Point:	101 deg C, 214 deg F
Solubility:	WATER: 1.6 wt% @ 20 deg C (68 deg F)
Specific Gravity:	(H2O=1): 0.94
Density:	0.949 g/ml @ 15.5 deg C
Evaporation Point:	(BuAc=1): 3.1
Percent Volatile:	(W/W%): 99+
Viscosity:	Like water

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SECTION 10 : STABILITY and REACTIVITY : (N/A)

Chemical Stability:	Unstable/Reactive upon depletion of inhibitor.
Conditions to Avoid:	Temperatures above 21 deg C, 70 deg F, localized heat sources (example drum or band heaters) oxidizing conditions, freezing conditions, direct sunlight, ultraviolet radiation, inert gas blanketing.
Incompatibilities with Other Materials:	(MATERIALS TO AVOID): Strong oxidizers, strong reducers, free radical initiators, inert gases, and oxygen scavengers. Material has strong solvent properties and can soften paint and rubber.
Hazardous Polymerization:	May occur.
Hazardous Decomposition Products:	Oxides of carbon when burned.

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SECTION 11 : TOXICOLOGICAL INFORMATION : (N/A)

Applies to all ingredients:

Eye Effect:	Irritating to eyes. High vapor concentration will cause irritation.
Skin Effects:	May cause sensitization by skin contact. Irritating to skin. Repeated and prolonged contact may cause dermatitis.
Ingestion Effects:	Low oral toxicity, but ingestion may cause irritation of the gastrointestinal tract.
Inhalation Effects:	Irritating to respiratory system. High atmospheric concentrations may lead to irritation of the respiratory tract, dizziness, headache and anesthetic effects.
Reproductive Toxicity:	Recent studies in animals have shown that high exposures do not have reproductive effects. Similarly, none of these effects are likely to occur in humans provided exposure is maintained at or below the occupational exposure limit.

Methyl Methacrylate :

Skin Effects:	Acute Dermal Rabbit LD50 > 35,500 mg/kg
Ingestion Effects:	Acute Oral Rat LD50: > 7900 mg/kg
Inhalation Effects:	Inhalation Human TCLo 125 ppm Inhalation Human TCLo 60 mg/m3 Inhalation Rat LC50 7094 ppm/4H
Carcinogenicity:	There is no reason to believe that methyl methacrylate represents a carcinogenic hazard to man based upon evidence from well-conducted studies in relevant cohorts.
Mutagenicity:	There is no reason to believe that methyl methacrylate represents a mutagenic hazard to man based upon evidence from well-conducted studies in relevant cohorts.
Other Toxicological Information:	TARGET ORGANS: For Methyl Methacrylate - Repeated exposure to high levels produces adverse effects on the nose, liver, and kidneys.

N,N-dimethyl-p-toluidine :

Skin Effects:	Acute Dermal Rat LD50 > 2000 mg/kg
Ingestion Effects:	Acute Oral Rat LD50 1650 mg/kg
Inhalation Effects:	Inhalation Rat LC50 2540 ppm/4H

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SECTION 12 : ECOLOGICAL INFORMATION : (N/A)

Environmental Fate:	(For Methyl Methacrylate) 28 Day Biodegradation Study: Not readily biodegradable. Chemical Oxygen Demand (COD) 88% (28 days). Inherent Biodegradation: Dissolved Organic Carbon Removal (DOC removal) > 95% (28 days) Adsorption/Desorption: High mobility in soil.
Effect of Material On Aquatic Life:	(For Methyl Methacrylate) Flathead Minnows LC50 130 mg/L, 96H Daphnia magna EC50 69 mg/L, 48H Algae LC50 170 mg/L, 96H

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SECTION 13 : DISPOSAL CONSIDERATIONS : (N/A)

Waste Disposal:	WASTE DISPOSAL METHOD: When discarded it is a hazardous waste by the EPA under RCRA. The reportable quantity (RQ) for methyl methacrylate is 1000 lbs (40 CFR Part 302). After addition of excess inhibitor, dispose waste material in accordance with Federal, State, and Local regulations. DISPOSAL OF EMPTY CONTAINERS: Reuse of empty drums or containers is not recommended. Employees should be advised of the potential hazards, due to residual flammable material, associated with empty containers. Dispose of all

empty containers properly, in accordance with Federal, State and Local regulations.

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SECTION 14 : TRANSPORT INFORMATION : (N/A)

DOT Shipping Name:	Flammable liquid, n.o.s. (Methyl Methacrylate monomer, stabilized / N, N-dimethyl-p-toludine solution)
DOT UN Number:	UN1993
DOT Hazard Class:	3
DOT Packing Group:	II
DOT Subpart E Labeling Requirement:	Flammable liquid
Reportable Quantity:	CERCLA RQ: 1000 lb
CGVS/GGVE/IMDG Class:	3

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SECTION 15 : REGULATORY INFORMATION : (N/A)

Applies to all ingredients:

TSCA 8(b): Inventory Status:	The components of this product are listed on the TSCA Inventory.
SARA:	SARA Threshold Planning Quantity: There are specific Threshold Planning Quantities for the components of this product.
US Federal:	Other Federal Requirements: This product complies with the appropriate sections of the U.S. FDA's 21 CFR.
State:	State Regulatory: This product may contain components that are covered under specific state criteria. SARA Reporting Requirements: Yes
Canada WHMIS:	WHMIS Classification: B2 Flammable Liquid D2B Irritant This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR. None of the components of this product are listed on the Priorities Substances List.
Canada DSL:	Included
European Community Chemical Inventory Status:	EINECS: All chemical listed EEC Classification: HIGHLY FLAMMABLE AND IRRITANT Symbol: Indication of Danger F Highly Flammable Xn Harmful This data sheet was prepared in accordance with Directive 91/155/EEC.
Risk Phrases:	R11 Highly flammable. R20/21/22 Harmful by inhalation, and in contact with skin. R33 Danger of cumulative effects. R36/37/38. Irritating to the eyes, respiratory system and skin. R43 May cause sensitization by skin contact.
Safety Phrase:	S3 Keep in a cool place. S7 Keep container tightly closed. S9 Keep container in well ventilated place. S16 Keep away from sources of ignition. No smoking. S20 When using do not eat or d... S24 Avoid contact with skin. S29 Do not empty into drains. S37/39 Wear suitable gloves and eye/face protection. S46 If swallowed, seek medical advice immediately and show this container or label.

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SECTION 16 : ADDITIONAL INFORMATION : (N/A)

HMIS:

Health Hazard:	2
Fire Hazard:	3
Reactivity:	2

NFPA:

Health:	2
Fire Hazard:	3
Reactivity:	2

MSDS Revision Date: 03/23/10
Rev. 12

Disclaimer:

The above information has been gathered from reliable sources and is believed to be correct. However, the information is provided without any warranty, either expressed or implied. Lang Dental Mfg. Company, Inc. shall not be held liable for any damage resulting from the handling of or contact with the above product.

OTHER INFORMATION: HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) RATING:
PERSONAL PROTECTIVE EQUIPMENT – Gloves and safety glasses or chemical splash goggles.

This data sheet was prepared in accordance with Directive 91/155/EEC.

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