MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEMICAL NAME: Promoted Methacrylate Monomer

PRODUCT NAME: QLS Monomer

Manufacturer's Name : EZ Flow Nail Systems
Address : 13720 Rosecrans Ave
City, State, Zip : Santa Fe Springs, CA 90670
Business Telephone : 562-229-0337
Emergency Telephone : 800-535-5053

PREPARATION/UPDATE DATE: 01/30/01
PRINT DATE: 8/16/02

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER:	WT/WT %
01	Ethyl Methacrylate Monomer	97-63-2	60.0-100.0
02	N,N-Dimethyl-p-Toluidine	99-97-8	0.1-1.0
03	Benzophenone	131-57-7	0.1-1.0
04	4-Methoxyphenol	150-76-5	40-80 ppm
05	Trade Secret	NA	0.5-1.5 ppm

	ACGIH		OSHA		Company	
ITEM	TLV-TWA	TLV-STEL	PEL TWA	PEL CEILING	Recommendation	SKIN
01	100 ppm	NE	100 ppm	NE	100 ppm	NE
02	NE	NE	NE	NE	NE	NE
03	NE	NE	NE	NE	NE	NE
04	5 mg/m^3	NE	5 mg/m^3	NE	5 mg/m^3	NE
05	NE	NE	NE	NE	NE	NE

See Section 16 for Abbreviations.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING: For Mixture: May irritate eyes, skin and respiratory tract.

For Methacrylate:

Acute Hazards:	Eyes:	Eye contact may cause irritation with discomfort, tearing, or blurring of vision.
	Respiratory Tract:	Inhalation may cause irritation of the respiratory tract with coughing, of nonspecific discomfort, such as nausea, headache and or weakness.
	Skin:	Effects in humans include skin irritation with discomfort or allergic skin rashes.
	Digestive Tract:	Ingestion may cause anesthetic effects such as dizziness, headache, confusion, incoordination, and loss of consciousness
	Symptoms:	May include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.
Chronic Hazards:	Skin:	May cause allergic skin rashes.
	Animal Studies:	Administered lethal oral doses include weakness, labored and irregular respiration, drop in arterial blood pressure and coma.

For Toluidine:

Acute Hazards:	Skin Absorption:	Liquid is rapidly absorbed through skin. Absorption of this product into the body causes the formation of methemoglobin, which in sufficient concentration causes cyanosis, symptoms include headache, dizziness, nausea and abdominal pain.
Chronic Hazards:		In case of blue discoloration (cyanosis) of skin, lips or fingernails give oxygen to breathe. No alcohol or physical exertion. Contact a physician.

For Benzophenone:	Eyes:	May irritate.
	Skin:	May irritate.

For 4-Methoxyphenol:

Acute Hazards:	Eyes:	Causes severe irritation.
	Ingestion:	Harmful if swallowed.
	Inhalation:	Harmful if inhaled, irritating to mucous membranes and upper respiratory tract.
	Skin:	Harmful if absorbed through skin.
	Duration:	Depending on the intensity and duration of exposure, effects may vary from mild irritation to severe destruction of tissue.
Chronic Hazards:	Eyes:	Prolong contact may cause eye damage.
	Skin:	May cause severe burns or irritation.
For Trade Secret:	Eyes:	Dust may irritate.
	Respiratory Tract:	Dust may irritate.

CARCINOGENICITY: None of the components of this material are listed by IARC, NTP, OSHA, or ACGIH as carcinogens.

PRIMARY ROUTES OF ENTRY: Inhalation, Skin or Eyes.

SECTION 4 - FIRST AID MEASURES

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION:	Remove to fresh air. Get medical help if discomfort persists.
EYES:	Flush with water for 15 minutes, including under eyelids. Get medical help if discomfort persists.
SKIN:	Wash with soap and water. Get medical help if discomfort persists.
INGESTION:	Rinse mouth out with water. Do not induce vomiting. Call doctor if amount was large.
CLOTHING:	Wash thoroughly before reuse.
TREATMENT:	Treat symptoms after thorough decontamination.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT:	16 °C , 60 °F
FLAMMABLE LIMIT, AIR VOL% LOWER:	1.8
UPPER:	----
AUTOIGNITION TEMPERATURE:	411 °C, 771 °F
EXTINGUISHER METHOD:	Chemical foam, carbon dioxide, dry chemical.
FIRE AND EXPLOSION HAZARDS:	Vapors may travel to source of ignition and flash back. Heat can cause polymerization with rapid release of energy which may rupture container explosively. (Spontaneous polymerization may occur on prolonged storage.)
SPECIAL FIRE FIGHTING PROCEDURES:	Wear self contained breathing apparatus, and full protective gear. Use water spray to cool containers.
EXPLOSION HAZARD:	Fight fire from protected location.
SENSITIVE TO MECHANICAL IMPACT: No.	
SENSITIVE TO STATIC DISCHARGE:	Yes.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE: Evacuate the area. Eliminate sources of ignition. Use self-contained breathing apparatus and protective clothing. Dike and absorb with inert material. Transfer to proper containers for disposal, use non-sparking tools. Contaminated monomer may be unstable, add inhibitor to prevent polymerization. Keep spills and cleaning runoffs out of sewers and open bodies of water. Spills on porous surfaces can contaminate the groundwater.

SECTION 7- HANDLING AND STORAGE

PRECAUTIONS FOR HANDLING: Observe precautions found on the label. Close container after each use. Ground all metal containers when transferring. Use explosion-proof equipment.

PRECAUTIONS FOR STORING: Store in cool dry place away from heat, sparks, flame and direct sunlight. Check inhibitor levels every three months.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

VENTILATION:	Use good, local explosion-proof ventilation with a minimum capture velocity of 100 ft/min (30 m/min) at point of monomer release. Refer to Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists. Local exhaust ventilation is preferred since it prevents contamination dispersion into the work area by controlling it at its source.
RESPIRATORY PROTECTION:	Use self-contained breathing apparatus when needed.
EYE PROTECTION:	Safety glasses or chemical splash goggles.
PROTECTIVE GLOVES:	Impervious, nitrile.
OTHER PROTECTIVE EQUIPMENT:	Provide eyewash, safety shower and impervious clothing. Protective creams should not be used for protection, but may be used for ease of clean up.
INDUSTRIAL HYGIENE PRACTICES:	Wash face and hands thoroughly with soap and water after use and before eating, drinking, smoking or applying cosmetics.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear liquid.
ODOR:	Acrid, fruity.
pH:	ND
ODOR THRESHOLD:	ND
BOILING POINT:	119 °C, 246 °F
FREEZING POINT:	ND
VISCOSITY:	Like water
SPECIFIC GRAVITY (H_2O=1):	0.917
VAPOR PRESSURE:	15 mm Hg @ 20 °C, 68 °F
PERCENT VOLATILE W/W%:	99+
VAPOR DENSITY (AIR=1):	3.9 @ 15.5 °C, 60 °F
EVAPORATION RATE (BuAc =1):	3.0
SOLUBILITY IN WATER:	Moderate, 1.6 gm/100 gm @ 20 °C, 68 °F
COEFFICIENT OF WATER/OIL DISTRIBUTION:	ND

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Temperatures above 21 °C, 70 °F, ignition sources, oxidizing/reducing agents, peroxides, acids, alkalis, amines, aging and contamination.

INCOMPATIBILITY (MATERIALS TO AVOID): Reducing and oxidizing agents and UV light. Material has strong solvent properties and can soften paint and rubber.

HAZARDOUS DECOMPOSITION PRODUCTS: Mainly Oxides of Carbon when burned.

HAZARDOUS POLYMERIZATION: MAY OCCUR: X WILL NOT OCCUR:

STABILITY: UNSTABLE: X STABLE:

SECTION 11- TOXICOLOGICAL PROPERTIES

TARGET ORGANS:

For Methacrylate: None Listed.
For Toluidine: None listed.
For Benzophenone: None Listed.
For 4-Methoxyphenol: None Listed, however all data in this MSDS refers to MEHQ in the dry powder form rather than in a liquid mixture. None Listed, however all data in this MSDS refers to MEHQ in the dry powder form rather than in a liquid mixture.
For Trade Secret: None Listed.

MUTAGENICITY DATA:

For Trade Secret:

S Typhimurium	Microbial Mutation without S9:	25 µg/plate

REPRODUCTIVE TOXICITY DATA:

For Methacrylate:

Intraperitoneal Rat	TD_{Lo}:	735 mg/kg, 5-15D pregnant.
Intraperitoneal Rat	TD_{Lo}:	366 mg/kg, 5-15 D pregnant.

For Benzophenone:

Oral Rat	TD_{Lo}:	45 mg/kg.

SECTION 11- TOXICOLOGICAL PROPERTIES CONTINUED

TOXICITY DATA:

For Methacrylate:		
Inhalation Rat	LC_{50}:	8300 ppm/4H.
Intraperitoneal Mouse	LD_{50}:	1369 mg/kg.
Intraperitoneal Rat	LD_{50}:	1223 mg/kg.
Oral Mouse	LD_{50}:	7836 mg/kg.
Oral Rat	LD_{50}:	14800 mg/kg.
Oral Rabbit	LD_{50}:	3630 mg/kg.
Subcutaneous Rat	$LD_{Lo:}$	25 gm/kg.
For Toluidine:		
Intraperitoneal Mouse	LD_{50}:	212 mg/kg.
For Benzophenone:		
Oral Rat	TD_{Lo}:	45 gm/kg.
Oral Rat	TD_{Lo}:	54 gm/kg.
Intraperitoneal Mouse	LD_{50}:	300 mg/kg.
Oral Rat	LD_{50}:	7400mg/kg.
For 4-Methoxyphenol:		
Intraperitoneal, Mouse	LD_{50}:	250 mg/kg.
Intraperitoneal, Rat	LD_{50}:	725 mg/kg.
Intraperitoneal, Rabbit	LD_{50}:	970 mg/kg.
Oral, Rat	LD_{50}:	1600 mg/kg.
For Trade Secret:		
Intraperitoneal Mouse	LD_{Lo}:	512 mg/kg.

SECTION 12 - ECOLOGICAL INFORMATION

AQUATIC TOXICITY:

For Methacrylate: None Listed.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: When discarded it is listed as a hazardous waste by the EPA under RCRA U-118 with the reportable quantity (RQ) of 1000 pounds (40 CFR Part 302). Incinerate liquid and diking material after addition of excess inhibitor, 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. It is our policy to discourage the reuse of empty containers and to dispose of all empty containers properly, in accordance with Federal, State and Local regulations.

SECTION 14 - TRANSPORTATION

DOT/UN SHIPPING NAME:	ETHYL METHACRYLATE MONOMER, INHIBITED
DOT/UN CLASS:	3
NA/UN NUMBER:	UN 2277
PACKING GROUP:	PACKING GROUP II
NAERG:	129P
LABEL:	Flammable Liquid
NMFC ITEM #:	42650
SCHEDULE B:	2916.14.2010
IMDG CLASS:	3.2
IMDG PG:	3226
CERLA RQ:	For Ethyl Methacrylate Monomer: 1000 lb.

SECTION 15 - REGULATORY INFORMATION

ITEM	TSCA	EINECS	CERCLA	313	CAA	RCRA
01	X	X	X	X	X	U 118
02	X	X				
03	X	X				
04	X	X	X	X		
05	X	X				

ITEM	CWA	PA	NJ	CA 65	WHMIS
01		X	X		X
04					X

TSCA: FOR USE IN FDA REGULATED PRODUCTS ONLY

CANADIAN WHMIS: This product has been classified in accordance with the hazardous criteria of the CPR and the MSDS contains all the information required by the CPR.

SECTION 16 - OTHER INFORMATION

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) RATING:

HEALTH:	2
FLAMMABILITY:	3
REACTIVITY:	2
PERSONAL PROTECTIVE EQUIPMENT:	Gloves and Safety Glasses or Chemical Splash Goggles.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION RATING:

HEALTH:	2
FLAMMABILITY:	3
REACTIVITY:	2

SECTION 16 - OTHER INFORMATION CONTINUED

ABBREVIATIONS:

NA	Not Applicable	ND	Not Determined
NE	Not Established	CPR	Controlled Products Regulation
ppm	parts per million	G	Gallon
mg	Milligram	L	Liter
gm	Gram	mol	Mole
kg	Kilogram	µ	Micro
mm	Millimeter		
LC	Lethal Concentration	LD	Lethal Dose
TC	Toxic Concentration	TD	Toxic Dose
BOD	Biological Oxygen Demand	COD	Chemical Oxygen Demand
Lo	Lowest	ThOD	Theoretical Oxygen Demand
TLm	Threshold Limit		
H	Hours	M	Months
D	Days	Y	Years
W	Weeks		

SECTION 16 - OTHER INFORMATION

Prepared By: _____ Health, Safety and Environment

Reviewed By: _____ Technical Review

Reviewed By: _____ Senior Company Officer

Issue Date: _____

THIS MATERIAL SAFETY DATA SHEET IS PREPARED IN COMPLIANCE WITH FEDERAL REGULATIONS (29 CFR 1910.1200), THE COMMONWEALTH OF PENNSYLVANIA REGULATIONS (TITLE 34. CHAPTERS 301-323) AND CANADIAN WHMIS REGULATIONS, ANY APPLICABLE STATE AND LOCAL REGULATIONS SHOULD BE CONSULTED. THE ABOVE INFORMATION MAY BE BASED IN PART ON INFORMATION PROVIDED BY COMPONENT SUPPLIERS AND IS BELIEVED TO BE CORRECT AS OF THE DATE HEREOF. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY USE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OF THESE DATA, THE RESULTS TO BE OBTAINED FROM THE USE OF THE MATERIAL, OR THE HAZARDS CONNECTED WITH SUCH USE. SINCE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS BEYOND OUR CONTROL AND WITH WHICH WE MAY BE UNFAMILIAR, AND SINCE DATA MADE AVAILABLE SUBSEQUENT TO THE DATE HEREOF MAY SUGGEST MODIFICATION OF THE INFORMATION, WE ASSUME NO RESPONSIBILITY FOR THE RESULT OF ITS USE. THIS INFORMATION AND MATERIAL IS FURNISHED ON THE CONDITION THAT THE PERSON RECEIVING IT SHALL MAKE HIS/HER OWN DETERMINATION AS TO THE SUITABILITY OF THE MATERIAL FOR HIS/HER PARTICULAR PURPOSE AND ON THE CONDITION THAT HE/SHE ASSUME THE RISK OF HIS/HER USE THEREOF.