ODYSSEY NAIL SYSTEMS **MATERIAL SAFETY DATA SHEET**

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEMICAL NAME: Copolymer

PRODUCT NAME: Copolymer, White with added BPO

TRADE NAME: **VIP Vibrant White**

PRODUCT USE: Organic Process Chemical

MANUFACTURER: Odyssey Nail Systems
ADDRESS: 6498 Wilcrest Dr
Houston, TX 77072

24 HR. EMERGENCY TELEPHONE: CHEMTREC: 1-800-424-9300

PREPARED BY: C. J. Bruner, HEALTH & SAFETY DEPARTMENT
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SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

FOR POLYMER:

ITEM	CHEMICAL NAME	CAS NUMBER:	WT/WT %
01	Copolymer	9003-42-3	65-99
02	Titanium Dioxide	13463-67-7	0-1
03	Dibenzoyl Peroxide	94-36-0	0-1
04	N/E-None Established	N/DA- No data Available	

	ACGIH		OSHA		Company	
ITEM	TLV-TWA	TLV-STEL	PEL TWA	PEL CEILING	Recommendation	SKIN
01	10 mg/m^3	NE	15 mg/m^3	NE	NE	NE
02	NA	NA	NA	NA	NA	NA
03	5 mg/m^3	NE	5 mg/m^3	NE	NE	NE
04	10 m/m^3	NE	15 m/m^3	NE	NE	NE

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS CONTINUED

FOR DECOMPOSITION PRODUCTS:

ITEM	CHEMICAL NAME	CAS NUMBER:	WT/WT %
05	Methyl Methacrylate Monomer	80-62-6	60.0-100.0
06	Ethyl Methacrylate Monomer	97-63-2	60.0-100.0

	ACGIH		OSHA		Company	
ITEM	TLV-TWA	TLV-STEL	PEL TWA	PEL CEILING	Recommendation	SKIN
05	100 ppm	NE	100 ppm	NE	100 ppm	NE
06	100 ppm	NE	100 ppm	NE	100 ppm	NE

See Section 16 for Abbreviations.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

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

For Polymer:

OSHA classifies this material as Particulates, Not Otherwise Classified.

	Eyes:	May be irritated by gross overexposure, no matter how generated. Keep dust out of eyes.
	Skin	May be irritated by gross overexposure, no matter how generated. May cause dryness.
	Respiratory Tract	May be irritated by gross overexposure, no matter how generated.
For Benzoyl Peroxide:	Eyes:	May cause irritation or damage.
	Skin:	Prolonged and/or repeated skin contact may cause irritation, defatting, dermatitis and sensitization.
	Inhalation:	May cause irritation of nose, throat and lungs.
	Ingestion:	May produce muscular weakness.
For Titanium Dioxide:	Eyes:	May cause irritation as an inert foreign body.
	Skin:	May cause drying effect, although non-corrosive, non-irritating and non-sensitizing.
	Inhalation:	May cause temporary drying effect or irritation of mucus membranes.
	Ingestion:	Harmless, physiologically inert.

SECTION 3 - HAZARDS IDENTIFICATION CONTINUED

For Decomposition Products:

Methyl Methacrylate:

Acute Hazards:	Eyes:	May irritate.
	Respiratory Tract:	May irritate.
	Skin:	May cause rashes.
	Symptoms:	Headaches, nausea, staggering gait, confusion, drowsiness and unconsciousness.
Chronic Hazards:	Eyes:	May cause eye corrosion and permanent injury.
	Liver and Kidneys:	May cause changes in liver and kidney function or damage.
	Nervous System:	Repeated and prolonged over exposure may cause permanent damage.
	Skin:	May cause allergic skin rashes.

Ethyl 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.

CARCINOGENICITY: IARC and NIOSH lists Titanium Dioxide as not classifiable as to carcinogenicity to humans. IARC lists Benzoyl Peroxide as not classifiable as to carcinogenicity to humans. None of the other 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. Call doctor if amount was large.
CLOTHING:	Wash thoroughly before reuse.
TREATMENT:	Treat symptoms after thorough decontamination.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT:	304 °C, 580 °F
FLAMMABLE LIMIT, AIR VOL% LOWER:	NA
UPPER:	NA
AUTOIGNITION TEMPERATURE:	NE
EXTINGUISHER METHOD:	Water, carbon dioxide, dry chemical.
FIRE AND EXPLOSION HAZARDS:	Polymer dust is combustible. The explosive limits of the polymer particles suspended in air are approximately those of coal dust.
SPECIAL FIRE FIGHTING PROCEDURES:	Avoid extinguishing methods which may generate dust clouds. Water stream can disperse dust into air, producing a fire hazard and possible explosion hazard if exposed to ignition source.
EXPLOSION HAZARD:	Firefighters should wear self-contained breathing apparatus.
SENSITIVE TO MECHANICAL IMPACT:	For Polymer: No. For Benzoyl Peroxide Component: Yes
SENSITIVE TO STATIC DISCHARGE:	For Polymer: No. For Benzoyl Peroxide Component: Yes

SECTION 6 - ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE: Sweep up to avoid slipping hazard. Keep airborne particulates at a minimum when cleaning up spills.

SECTION 7- HANDLING AND STORAGE

PRECAUTIONS FOR HANDLING: Use in well ventilated areas. Wear gloves when handling powder.

PRECAUTIONS FOR STORAGE: Store in cool dry place. Keep container closed to prevent water absorption and contamination.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

VENTILATION:	Use good, local exhaust at processing equipment, including buffers, sanders, grinders and polishers.
RESPIRATORY PROTECTION:	Use type for Particulates Not Otherwise Classified, if needed.
EYE PROTECTION:	Safety glasses or chemical splash goggles.
PROTECTIVE GLOVES:	Impervious, nitrile, if hot plastic is handled.
OTHER PROTECTIVE EQUIPMENT:	Provide eyewash, safety shower and impervious clothing are recommended. High temperature processing equipment should be well ventilated.
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:	Fine white powder.
ODOR:	Faint odor in bulk.
pH:	ND
ODOR THRESHOLD:	ND
BOILING POINT:	NA
FREEZING POINT:	ND
VISCOSITY:	NA
SPECIFIC GRAVITY (H_2O=1):	1.25
VAPOR PRESSURE:	NA
PERCENT VOLATILE W/W%:	NA
VAPOR DENSITY (AIR=1):	NA
EVAPORATION RATE (BuAc =1):	3.0
SOLUBILITY IN WATER:	Insoluble.
COEFFICIENT OF WATER/OIL DISTRIBUTION:	ND

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Heating above 240 °C, 464 °F.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Methacrylate Monomer and Oxides of Carbon when burned.

HAZARDOUS POLYMERIZATION:	MAY OCCUR:	WILL NOT OCCUR:	X
STABILITY:	UNSTABLE:	STABLE:	X

SECTION 11- TOXICOLOGICAL PROPERTIES

TARGET ORGANS:

For Polymer;	None Listed.
For Benzoyl Peroxide:	Skin and eyes.
For Titanium Dioxide:	None Listed.

For Decomposition Products:

Methyl Methacrylate:	Nose, Liver and kidneys.
Ethyl Methacrylate:	None Listed.

MUTAGENICITY DATA:

For Polymer: None Listed.

For Benzoyl Peroxide:

Human Cell Types	DNA Damage:	100 µ mol/L.
Mouse Cell Types	DNA Damage:	1 µ mol/L.
Human Cell types	DNA Inhibition:	56 µ mol/L.
Rat Liver	Unscheduled DNA Synthesis:	100 p mol/L.
Human Cell Types	Test Systems Other:	56 µ mol/L.

For Decomposition Products:

Methyl Methacrylate:

Ovary Hamster	Cytogenetic Analysis:	1600 mg/L.
Inhalation Rat	Cytogenetic Analysis:	4 mg/m^3/16W.
Lymphocyte Mouse	Gene Mutation in Mammalian Cells:	704 mg/L.
Lymphocyte Mouse	Microsomal Assay:	500 mg/L.
Ovary, Hamster	Sister Chromatid Exchange:	1500 mg/L.

Ethyl Methacrylate: None Listed.

REPRODUCTIVE TOXICITY DATA:

For Polymer: None Listed.

For Decomposition Products: None Listed.

Methyl Methacrylate:

Inhalation Rat	TC_{Lo}:	109 gm/m^3/17M.
Inhalation Rat	TC_{Lo}:	109 gm/m^3/54M, 6-15 days of pregnancy.
Inhalation Rat	TC_{Lo}:	54mg/m^3/24H, 8 weeks of pregnancy.
Inhalation Rat	TC_{Lo}:	4480 mg/m^3/2H, 6-18 days of pregnancy.
Intraperitoneal Rat	TC_{Lo}:	405 mg/kg.
Intraperitoneal Rat	TC_{Lo}:	801mg/kg.

Ethyl Methacrylate:

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

SECTION 11- TOXICOLOGICAL PROPERTIES CONTINUED

TUMOROGENIC DATA:

For Polymer:		None Listed.
For Benzoyl Peroxide:		
Skin Mouse	TD_{Lo}:	24 gm/kg/30W.
For Titanium Dioxide:		
Inhalation Rat	TC_{Lo}:	250 mg/m^3/6H/2Y
Intramuscular Rat	TD_{Lo}:	360 mg/kg/2Y.
Intramuscular Rat	TD:	260 mg/kg/84W.

TOXICITY DATA:

For Polymer:		None Listed.
For Benzoyl Peroxide:		
Inhalation Rat	LC_{50}:	24.3 mg/L/4hr.
Intraperitoneal Mouse	LD_{Lo}:	250 mg/kg.
Oral Rat	LD_{50}:	7710 mg/kg.
For Titanium Dioxide:		
Oral Rat	LD_{50}:	9000 mg/kg.

For Decomposition Products:

Methyl Methacrylate:

Acute Oral Rat	LD_{50}:	7990 mg/kg.
Acute Dermal Rabbit	LD_{50}:	35,500 mg/kg.
Acute Inhalation Rat	LC_{50}:	>12,500 to 16,500 ppm for 0.5 hours.
Inhalation Human	TC_{Lo}:	125 ppm.
Inhalation Human	TC_{Lo}:	60 mg/m^3.
Human Patch Test:		Approximate one-third of subjects developed mild redness at the site of application. Twenty percent showed sensitivity when tested 10 days later.

Ethyl 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.

SECTION 12 - ECOLOGICAL INFORMATION

AQUATIC TOXICITY:

For Polymer: None Listed.

For Decomposition Products:

Methyl Methacrylate:

Flathead Minnows	TLm_{96H}:	100-1000 ppm.
Goldfish	TLm_{24H}:	420 ppm.
Bluegills	TLm_{24H}:	368 ppm.

Ethyl Methacrylate: None Listed.

ECOLOGICAL TOXICITY:

For Polymer: Not Known.

For Titanium Dioxide: Not Known.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose in a landfill or incinerate according to 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 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: SYNTHETIC GUM RESIN GRANULAR, NOIBN
DOT/UN CLASS:
NA/UN NUMBER:
PACKING GROUP:
NAERG:
LABEL:
NMFC ITEM #: 46030
SCHEDULE B: 3906.90.6000
IMDG CLASS:
IMDG PG:
CERLA RQ: For Decomposition Products:
Methyl Methacrylate Monomer: 1000 lb.
Ethyl Methacrylate Monomer: 1000 lb.

SECTION 15 - REGULATORY INFORMATION

ITEM	TSCA	EINECS	CERCLA	313	CAA	RCRA
01						
02						
03	X	X		X		
04	X	X				
05	X	X	X	X	X	U 162
06	X	X	X	X	X	U 118

ITEM	CWA	PA	NJ	CA 65	WHMIS	DAK
03					X	5 mg/m^3
05		X	X		X	50 ppm
06		X	X		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:	1
FLAMMABILITY:	1
REACTIVITY:	0
PERSONAL PROTECTIVE EQUIPMENT:	Gloves and Safety Glasses or Chemical Splash Goggles.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION RATING:

HEALTH:	1
FLAMMABILITY:	1
REACTIVITY:	0

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	p	Pico

SECTION 16 - OTHER INFORMATION CONTINUED

ABBREVIATIONS CONTINUED:

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		

OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienist
IARC	International Agency for Research for Cancer
TLV	Threshold Limit Value
PEL	Permissible Exposure Limit

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.