

ODYSSEY NAIL SYSTEMS

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEMICAL NAME: Functional Monomer in Acetone

PRODUCT NAME: Functional Monomer PMGDM in Acetone

TRADE NAME/PRODUCT CODE: **Primex Bonder**

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
PHONE: 1-610-497-9000 During Business Hours
1-610-497-9000, Then Press 6 At All Other Times

PREPARATION/UPDATE DATE: 11/30/10
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SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

FOR PRODUCT:

ITEM	CHEMICAL NAME	CAS NUMBER:	WT/WT %
01	Acetone	67-64-1	60-100
02	PMGDM	NE	7-13

ITEM	ACGIH		OSHA		Company Recommendation	SKIN
	TLV-TWA	TLV-STEL	PEL TWA	PEL CEILING		
01	750 ppm	NE	1000 ppm	NE	750 ppm	NE
02	NE	NE	NE	NE	NE	NE

FOR RESIDUAL COMPONENTS:

ITEM	CHEMICAL NAME	CAS NUMBER:	WT/WT %
03	Glycerol Dimethacrylate	1830-78-0	7-13

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

See Section 16 for Abbreviations.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING:	For Mixture:	May irritate eyes, skin and respiratory tract.
For Acetone:		
Acute Hazards:	Eyes:	Vapors will irritate the eyes. Liquid and mists will irritate and may burn the eyes.
	Skin:	Brief contact may dry the skin.
	Ingestion:	Swallowing large quantities causes headaches, nausea, vomiting, and perhaps unconsciousness. Can also cause liver and kidney injury.
Chronic Hazards:	Inhalation:	Prolonged or repeated exposure or breathing very high concentrations may cause headaches, nausea, vomiting, dizziness, other central nervous system effects, convulsions, and in extreme cases, unconsciousness and death.
	Skin:	Prolonged or repeated contact may irritate the skin, causing dermatitis.
Medical conditions aggravated by exposure:		Preexisting eye or skin disorders. Also, use of alcoholic beverages enhance toxic effects.
For PMGDM:		As of this time no exposure data has been found.
For decomposition products:		
Carbon Dioxide:		May cause nausea, dizziness and headaches.
Carbon Monoxide:		
Acute Hazards:	Inhalation:	Toxic, may cause nausea, dizziness and headaches.
Chronic Hazards:	Inhalation:	Neurotoxic effects, possible teratogen.
For residual component:		
Glycerol Dimethacrylate:	Eyes:	May irritate.
	Inhalation:	May irritate Respiratory Tract.
	Skin:	May cause rashes.
	Symptoms:	Headaches, nausea, staggering gait, confusion, drowsiness and unconsciousness.

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:

EYES:	Flush with water for 15 minutes, including under eyelids. Get immediate medical attention.
INGESTION:	Do not induce vomiting. If conscious, give lots of water. Get immediate medical attention.
INHALATION:	Remove to fresh air. Give Oxygen if not breathing. Get Immediate medical attention.
SKIN:	Immediately wash with large amounts of soap and water. Get medical help if discomfort persist.
CLOTHING:	Remove contaminated clothing and shoes, wash thoroughly before reuse.
TREATMENT:	The danger of aspiration must be weighed against toxicity when considering emptying the stomach. Stomach contents should be emptied quickly in a manner which avoids the vomitus from entering the lungs.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT:	-25 °C , -13 °F
FLAMMABLE LIMIT, AIR VOL% LOWER:	2.6
UPPER:	13.0
AUTOIGNITION TEMPERATURE:	538 °C, 1000 °F
EXTINGUISHER METHOD:	Chemical foam, carbon dioxide, dry chemical and water.
FIRE AND EXPLOSION HAZARDS:	Acetone is extremely flammable. Extinguish all nearby sources of ignition. Avoid accumulation of water or acetone vapors because aqueous solutions containing more than 2.5 % acetone are flammable. Avoid spreading burning liquid with water used for cooling. Move containers from fire area if it can be done without risk. Vapors formed from this product are heavier than air and may travel along the surface to a distant source of ignition and flashback. Explosion Hazard: Explosive vapor-air mixtures may be formed above the flash point or between the lower and upper flammable limits.
SPECIAL FIRE FIGHTING PROCEDURES:	Wear self contained breathing apparatus, and full protective gear. Use water spray to cool containers and structures, and to minimize vapors. Either allow the fire to burn under controlled conditions or extinguish with alcohol foam and dry chemical.
EXPLOSION HAZARD:	Fight fire from protected location.
SENSITIVE TO MECHANICAL IMPACT: No.	
SENSITIVE TO STATIC DISCHARGE:	No.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE:	Stay upwind and away from spill. Keep all sources of ignition away from spill. If spill is indoors, ventilate area of spill. Use inert material to contain and absorb material. Transfer absorbed material to approved containers for disposal, use non-sparking tools. Keep spills and runoffs from clean up out of sewers and open bodies of water. Spills on porous surfaces can contaminate the groundwater. Contact the appropriate authorities as required by applicable Federal, State and Local regulations.
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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 STORAGE:	Store in cool dry place away from heat, sparks, flame and direct sunlight.

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: <u>A Manual of Recommended Practice</u> 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:	Characteristic Odor.
pH:	ND
ODOR THRESHOLD:	ND
BOILING POINT:	56 °C, 133 °F
MELTING POINT:	-97 °C, -147 °F
FREEZING POINT:	ND
VISCOSITY:	ND
SPECIFIC GRAVITY (H₂O=1):	0.79
VAPOR PRESSURE:	184
PERCENT VOLATILE W/W%:	100
VAPOR DENSITY (AIR=1):	2.0
EVAPORATION RATE (BuAc =1):	5.6
SOLUBILITY IN WATER:	NE
COEFFICIENT OF WATER/OIL DISTRIBUTION:	ND

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID:	Heat, sparks and sources of ignition.		
INCOMPATIBILITY (MATERIALS TO AVOID):	Acids, oxidizing agents, alkalis, amine, alkanamines, ammonia, aldehydes, and chlorinated compounds. Material has strong solvent properties and can soften paint and rubber.		
HAZARDOUS DECOMPOSITION PRODUCTS:	Methacrylates and Oxides of Carbon when burned.		
HAZARDOUS POLYMERIZATION:	MAY OCCUR:	X	WILL NOT OCCUR:
STABILITY:	UNSTABLE:	X	STABLE:

SECTION 11- TOXICOLOGICAL PROPERTIES

TARGET ORGANS:

For Acetone: Liver and Kidneys.
For PMGDM: None Listed.

For decomposition products:

Carbon Dioxide: None Listed.
Carbon Monoxide: None Listed.
Water: None Listed.

For residual component:

Glycerol Dimethacrylate: None Listed:

MUTAGENICITY DATA:

For Acetone:

Fibroblast Hamster	Cytogenetic Analysis:	40 gm/L.
S. Cerevisiae	Cytogenetic Analysis:	200 mmol/tube.
S. Cerevisitae	Sex Chromosome Loss and Nondisjunction:	47600 ppm

For PMGDM:

None Listed.

REPRODUCTIVE TOXICITY DATA:

For Acetone:

Inhalation Mammal	TC _{Lo} :	31500 µg/m ³ /24H 1-13D preg.
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For PMGDM:

None Listed.

SECTION 11- TOXICOLOGICAL PROPERTIES CONTINUED

TOXICITY DATA:

For Acetone:

Inhalation Human	TC _{Lo} :	500 ppm.
Inhalation Man	TD _{Lo} :	440 µg/ m ³ /6M.
Inhalation Man	TD _{Lo} :	10 mg/ m ³ /6H.
Intraperitoneal Dog	LD _{Lo} :	8 gm/kg.
Intraperitoneal Mouse	LD ₅₀ :	1297 mg/kg.
Intraperitoneal Rat	LD ₅₀ :	500 mg/kg.
Intravenous Rat	LD ₅₀ :	5500 mg/kg.
Intravenous Rabbit	LD _{Lo} :	1576 mg/kg.
Oral Dog	LD _{Lo} :	24 gm/kg.
Oral Man	TD _{Lo} :	2857 mg/kg.
Oral Mouse	LD ₅₀ :	3000 mg/kg.
Oral Rat	LD ₅₀ :	5800 mg/kg.
Oral Rabbit	LD _{Lo} :	3940 mg/kg.
Subcutaneous Dog	LD _{Lo} :	5 gm/kg.
Subcutaneous Guinea Pig	LD ₅₀ :	5000 mg/kg.
Skin Rabbit	LD ₅₀ :	20 gm/kg.

For PMGDM:

None Listed.

For Decomposition Products:

Carbon Dioxide:

Inhalation Human	LC _{Lo} :	9 pph/5M
Inhalation Mammal	LC _{Lo} :	90000 ppm/5M.

Carbon Monoxide:

Inhalation Wild Bird	LC ₅₀ :	1334 ppm.
Inhalation Dog	LC _{Lo} :	4000/46M.
Inhalation Guinea Pig	LC ₅₀ :	5718 ppm/4H.
Inhalation Human	LC _{Lo} :	5000 ppm/5M.
Inhalation Mammal	LC _{Lo} :	5000 ppm/5M.
Inhalation Man	LC _{Lo} :	4000 ppm/30M.
Inhalation Man	TC _{Lo} :	650 ppm/45M.
Inhalation Mouse	LC ₅₀ :	2444/4H.
Inhalation Rat	LC ₅₀ :	1807 ppm/4H.
Inhalation Rabbit	LC _{Lo} :	4000 ppm.

Water:

Intraperitoneal Mouse	LD ₅₀ :	190 gm/kg.
Intravenous Mouse	LD ₅₀ :	25 gm/kg.
Intravenous Rabbit	LD _{Lo} :	13 mg/kg.
Oral Cat	LD _{Lo} :	320 mg/kg.
Oral Dog	LD _{Lo} :	629 mg/kg.
Oral Guinea Pig	LD _{Lo} :	429 mg/kg.
Oral Infant	TD _{Lo} :	333 mg/kg.
Oral Rabbit	LD _{Lo} :	368 mg/kg.
Rectal Rabbit	LD _{Lo} :	450 mg/kg.
Rectal Woman	LD _{Lo} :	180 gm/kg/28H.

For residual component:

Glycerol Dimethacrylate:

None Listed:

SECTION 12 - ECOLOGICAL INFORMATION**AQUATIC TOXICITY:**

For Acetone: None Listed.

ENVIRONMENTAL EFFECTS:

For Acetone: No Data Found.

SECTION 13 - DISPOSAL CONSIDERATIONS**WASTE DISPOSAL METHOD:**

Acetone, when discarded is listed as a hazardous waste by the EPA under RCRA (U002) with the reportable quantity (RQ) of 5000 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:	ACETONE SOLUTION
DOT/UN CLASS:	3
NA/UN NUMBER:	1090
PACKING GROUP:	II
NAERG:	127
LABEL:	Flammable Liquid
NMFC ITEM #:	42640
SCHEDULE B:	2914.11.0000
IMDG CLASS:	3
EmS:	3-06
CERCLA RQ:	For Acetone: 5000 lb.

SECTION 15 - REGULATORY INFORMATION

ITEM 01	TSCA X	EINECS X	CERCLA X	CAA	CWA	RCRA	SARA 313 X	MAK	
ITEM 01	AUSTRALIA	CANADA X	CHINA	JAPAN	KOREA	PHILIPPINE			
ITEM 05	CA65	FL	MA	MI	MN	NJ X	NY	PA X	WA

TSCA: FOR USE IN FDA REGULATED PRODUCTS ONLY. This mixture contains a material that is not listed on the TSCA (Toxic Substances Control Act) Inventory. This material is intended for R&D use only and is limited to only products regulated by the FDA and may not be used in any non-FDA products; for example industrial applications. It is subject to TSCA regulations at 40 CFR 720.36 which deals with the exemption of chemicals used in research and development from PMN (Pre-Manufacture Notification) requirements. In addition, the burden of safe use of the material rest with you and, therefore, is should be handled only by qualified persons trained in laboratory procedures and good safety practices.

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.

WARNING CODE: F – Highly Flammable

RISK STATEMENTS: R11 – Highly Flammable
R36/37/38 – Irritating to eyes, respiratory system and skin.
R43 – May cause sensitization by skin contact

SAFETY STATEMENTS: S3 – Keep in a cool place.
S7 – Keep container tightly closed.
S9 – Keep container in a well ventilated place.
S16 – Keep away from sources of ignition – No Smoking.
S20 – When using do not eat or drink.
S 29 – Do not empty into drains.
S37/39 – Wear suitable gloves and eye/face protection.

SECTION 16 - OTHER INFORMATION

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) RATING:

HEALTH:	1
FLAMMABILITY:	3
REACTIVITY:	0
PERSONAL PROTECTIVE EQUIPMENT:	Gloves and Safety Glasses or Chemical Splash Goggles.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION RATING:

HEALTH:	1
FLAMMABILITY:	3
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
Pa	Pascals	c	cento

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	IC	Inhibitory Concentration

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
 NOEL No Observed Effect Level
 NOAEL No Observed Adverse Effect Level

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.