



MATERIAL SAFETY DATA SHEET

MAY NATIONAL PRIMER 2000

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: PRIMER
PRODUCT CODE: 2000
ADDRESS: May National Associates, Inc.
 4 Brighton Road, Suite 300
 Clifton, New Jersey 07012

PHONE: (973) 473-3330
FAX: (973) 473-4222
EMERGENCY PHONE: (CHEMTREC) (800) 424-9300
 International (CHEMTREC) (703) 527-3887

PREPARED BY: A. M. Gilman
REVISION DATE: 2/14/02 **SUPERSEDES:** None

SECTION 2 – COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

This product consists of a mixture/preparation.

CAS NO.	INGREDIENT	WT %	LETHAL DOSES	EXPOSURE LIMITS						
				TWA		STEL		Ceiling		
				ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	
1330-20-7	Xylene	7-13	Oral LD50 – 4,300 mg/kg (rat)	OSHA	100	435	-	-	-	-
			Dermal LD50 – >1,700 mg/kg (rabbit)	NIOSH	100	435	150	655	-	-
			Inhalation LC50 – 5,000 ppm/4hr (rat)	ACGIH ^a	100	434	150	651	-	-
				CANADA	100	434	150	652	-	-
100-41-4	Ethyl benzene	1-5	Oral LD50 – 3,500 mg/kg (rat)	OSHA	100	435	-	-	-	-
			Dermal LD50 – 17,800 µL/kg (rabbit)	NIOSH	100	435	125	545	-	-
			Inhalation LCLo – 4,000 ppm/4hr (rat)	ACGIH ^a	100	434	125	543	-	-
				CANADA	100	434	125	542	-	-
Mixture	Functional silsesquioxane(s)	-	-	-	-	-	-	-	-	-
Mixture	Alkyltrialkoxo silane	-	-	-	-	-	-	-	-	-
Mixture	Organo-tin compound	-	-	OSHA	0.1 ^b	-	-	-	-	-
				NIOSH	-	-	-	-	-	-
				ACGIH	0.1 ^b	-	-	-	-	-
				CANADA	-	-	-	-	-	-
57-56-1	Methanol ^c	-	Oral LD50 – 5,628 mg/kg (rat)	OSHA	-	-	-	-	-	-

MATERIAL SAFETY DATA SHEET

MAY NATIONAL PRIMER 2000

		Dermal LD50 – 15,800 mg/kg (rabbit)	NIOSH	-	-	-	-	-	-
		Inhalation LC50 – 64,000 ppm/4hr (rat)	ACGIH	200	262	250	327	-	-
			CANADA	-	-	-	-	-	-

^a ACGIH – Biological Exposure Index (BEI)

^b Threshold Limit Values

^c Methanol forms as a by-product upon hydrolysis

SECTION 3 – HAZARDS IDENTIFICATION

Please note that as a service to our customers, hazard warnings and information have been included for ALL chemicals listed in this MSDS. However, not all of these chemicals are defined as “hazardous” by ISO or OSHA standards. Only those chemicals listed in Section 2 of this MSDS are defined by ISO and/or OSHA as “hazardous” based upon the properties and concentrations of each chemical.

MOST IMPORTANT HAZARDS

MAIN SYMPTOMS:

EYE: Moderate eye irritation: signs / symptoms can include redness, swelling, pain, tearing, and hazy vision.

SKIN: Mild skin irritation (after prolonged or repeated contact): signs / symptoms can include redness, swelling, and itching. Ethyl benzene may be absorbed through the skin.

INHALATION: Inhalation of high concentrations of xylene and/or ethyl benzene may cause respiratory irritation or difficulties and central nervous system effects characterized by headache, nausea and dizziness. This material releases methanol (methyl alcohol) upon hydrolysis. Methanol causes optic neuropathy, metabolic acidosis and respiratory depression. Signs and symptoms of overexposure include headache, blurred vision, constricted visual fields, shortness of breath, dizziness, and vertigo. Signs and symptoms of exposure may be delayed up to 24 hours.

ORAL: Gastrointestinal effects: signs / symptoms generally will include abdominal pain. Ingestion of xylene may cause central nervous system effects. Aspiration of xylene or ethyl benzene into lungs may cause chemical pneumonitis. Symptoms of aspiration pneumonitis can include coughing, difficulty breathing, wheezing, coughing up blood and pneumonia which can be fatal. Ingestion of methanol may lead to blindness or death.

NFPA HAZARD CODES: Health: 2 Flammability: 3 Reactivity: 0

SECTION 4 – FIRST-AID PROCEDURES

INHALATION: If signs / symptoms occur, remove person to fresh air, or administer oxygen if necessary. If signs / symptoms continue, call a physician.

SKIN CONTACT: Wash affected area thoroughly with water or soap and water. Remove contaminated clothing and shoes. Get medical attention if irritation occurs. Clean contaminated clothing and shoes before reuse.

EYE CONTACT: Immediately hold eyelids apart and flush with water for 15 minutes. Get medical attention.

INGESTION: Drink plenty of water in small portions and induce vomiting. Get medical attention. Designate the product. Indicate the possible formation of methanol.

SECTION 5 – FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Carbon Dioxide (CO₂), alcohol-resistant foam -type or dry chemical extinguishing media.



MATERIAL SAFETY DATA SHEET

MAY NATIONAL PRIMER 2000

UNSUITABLE EXTINGUISHING MEDIA: None
SPECIFIC FIRE HAZARDS: None known
FIRE FIGHTING PROCEDURES: Wear full protective clothing including helmet, self contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist, and legs, face mask, and protective covering for exposed areas of the head. Warning! Flammable liquid and vapor. Keep away from heat, sparks, and flame. As a result of hydrolysis flammable vapors may accumulate in the container headspace. If large amount is involved, evacuate area.
FLASH POINT (CLOSED CUP): 38°C (100.4°F)
FLAMMABILITY LIMITS IN AIR (XYLENE): LEL: 1 %
UEL: 7 %
HAZARDOUS DECOMPOSITION PRODUCTS: At hydrolysis: methanol
At combustion: SiO₂, carbon dioxide (CO₂), carbon monoxide (CO), SnO₂, incompletely burnt hydrocarbons (in traces).
Silicone component: At temperature of approx. 150°C/302°F the formation of small quantities of formaldehyde is possible.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Observe all personal protective equipment recommendations described in Sections 5 and 8.
ENVIRONMENTAL PRECAUTIONS: Disposal of collected product, residues, and cleanup materials may be governmentally regulated. Observe all applicable local, state and federal waste management regulations.
METHODS FOR CLEANING UP: Ventilate area. Extinguish all ignition sources. Contain spill. Evacuate unprotected personnel from hazard area. Cover with absorbent, place in approved drum; do not seal drum for 48 hours to avoid possible pressure build-up. Local, state, and federal reporting requirements may apply to spills or releases of this material into the environment. See applicable regulatory compliance information in Section 15.

SECTION 7 – HANDLING AND STORAGE

HANDLING: Material is a flammable liquid.
STORAGE: Keep in a dry and cool place. Keep container closed. Keep in a well-ventilated place. Keep away from heat, sparks, and flame. Use only with adequate ventilation. Avoid electrostatic charging. Open and handle container with care.

SECTION 8 – EXPOSURE CONTROL AND PERSONAL PROTECTION

ENGINEERING CONTROLS:
LOCAL EXHAUST: Recommended
GENERAL VENTILATION: Use only with adequate ventilation
PERSONAL PROTECTIVE EQUIPMENT:
EYE PROTECTION: Avoid eye contact. Wear chemical safety goggles.
SKIN AND BODY PROTECTION: Avoid skin contact. Wear PVC gloves or rubber gloves.
RESPIRATORY PROTECTION: Avoid breathing of vapors. Use respiratory protection unless adequate local exhaust ventilation is provided or air-sampling data show exposures are within recommended exposure guidelines. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: half-

MATERIAL SAFETY DATA SHEET

MAY NATIONAL PRIMER 2000

HYGIENE MEASURES): mask organic vapor respirator or full-face organic vapor respirator. Alternatively use a positive-pressure, air-supplied respirator (regard TLV). Industrial hygiene personnel can assist in judging the adequacy of existing engineering controls. Wash hands thoroughly after handling. Do not eat drink or smoke during use. Avoid contact with eyes, skin or clothing. Avoid breathing dust/vapor/mist/gas/aerosol.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM: Liquid
COLOR: Opaque
ODOR: Slight
pH: Not Applicable
BOILING POINT (AT 760 MM HG): Not Determined
FLASHPOINT: Approx. 38 deg C (100.4 deg F); method: Pensky-Martens
EXPLOSION PROPERTIES: Not Determined
VAPOR PRESSURE (AT 100°F): Not Determined
VAPOR DENSITY: Not Determined
DENSITY: Not Applicable
SOLUBILITY IN WATER (%): Negligible
SPECIFIC GRAVITY (AT 77°F/25°C): 1.05 g/ccm at 25 deg C (77 deg F)
VISCOSITY (AT 77°F/25°C): 15-19 mPa-s
FREEZING / MELTING POINT: Not Determined
ODOR THRESHOLD: Not Determined
EVAPORATION RATE: Not Determined
% VOLATILE: Not Determined
NOTE: The above information is not intended for use in preparing product specifications.

SECTION 10 – STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable at ambient temperature and atmospheric pressure.
HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.
CONDITIONS TO AVOID: Store away from water or moisture.
MATERIALS TO AVOID: Water, strong oxidants.
HAZARDOUS DECOMPOSITION PRODUCTS: At hydrolysis: methanol
At combustion: SiO₂, carbon dioxide (CO₂), carbon monoxide (CO), SnO₂, incompletely burnt hydrocarbons (in traces).
Silicone component: At temperature of approx. 150°C/302°F the formation of small quantities of formaldehyde is possible.

SECTION 11 – TOXICOLOGICAL INFORMATION

See Section 2 for exposure limits, Section 3 for exposure effects.

ACUTE TOXICITY:

FOR XYLENE: Oral LD50 – 4,300 mg/kg (rat)
Dermal LD50 – >1,700 mg/kg (rabbit)
Inhalation LC50 – 5,000 ppm/4hr (rat)

MATERIAL SAFETY DATA SHEET

MAY NATIONAL PRIMER 2000

FOR ETHYL BENZENE: Oral LD50 – 3,500 mg/kg (rat)
Dermal LD50 – 17,800 µL/kg (rabbit)
Inhalation LCLo – 4,000 ppm/4hr (rat)

FOR METHANOL: Oral LD50 – 5,628 mg/kg (rat)
Dermal LD50 – 15,800 mg/kg (rabbit)
Inhalation LD50 – 64,000 ppm/4hr (rat)

CHRONIC TOXICITY:

SKIN: Repeat contact with skin may cause severe irritation, sensitization, or allergic reaction. Prolonged skin contact with xylene or ethyl benzene may cause skin irritation or dermatitis.

INHALATION: Vapor overexposure may cause drowsiness, irritate eyes, nose, and throat, or injure blood, liver, or central nervous system. Chronic exposure to xylene may cause damage to the eyes, central nervous system, bone marrow, liver, or kidneys. Chronic inhalation of ethyl benzene may have central nervous effects.

ORAL: Small amounts transferred to the mouth by fingers during use, etc. should not injure. Swallowing larger quantities may have adverse effects depending on quantity ingested.

SPECIFIC EFFECTS: This material contains the following components with the special hazards listed below.

Carcinogens: See below.
Teratogens: Xylene and ethyl benzene may cause teratogenic effects.
Mutagens: Positive and negative results have been observed “in vitro” for ethyl benzene. For ethyl benzene, mutation in mammalian somatic cells (Rodent, mouse) Lymphocyte = 80 mg/L.
Reproductive toxins: Xylene and ethyl benzene may cause reproductive effects.

CARCINOGENICITY:

XYLENE: The IARC has evaluated this chemical and listed it as Group 3, not classifiable as to its carcinogenicity to humans.

ETHYL BENZENE: The IARC has evaluated this chemical and listed it as Group 2B, possibly carcinogenic to humans.

SECTION 12 – ECOLOGICAL INFORMATION

FOR XYLENE:

Environmental Fate: When released into the soil, this material may evaporate to a moderate extent. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material may biodegrade to a moderate extent. When released into water, this material may evaporate to a moderate extent. When released into water, this material may biodegrade to a moderate extent. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life of less than 1 day. This material is not expected to significantly bioaccumulate. [Mixed xylenes: octanol / water partition coefficient 3.1 - 3.2; bioconcentration factor = 1.3 (eels).]

Environmental Toxicity: This material is expected to be slightly toxic to aquatic life.
LC50 – Range 10-100 mg/L/96hr (fish)



MATERIAL SAFETY DATA SHEET

MAY NATIONAL PRIMER 2000

FOR ETHYL BENZENE:

Environmental Fate: No information available.

Environmental Toxicity: This chemical is expected to be toxic to aquatic life.
Fish: Rainbow trout: LC50 – 14.0 mg/L/96hr
Static Bioassay Fish: Fathead Minnow: LC50 – 12.1 mg/L/96hr
Flow-through Bioassay Fish: Bluegill/Sunfish: LC50 – 150.0 mg/L/96hr
Static Bioassay, pH 6.5-7.9, 21-23 degrees C, Water flea: EC50 – 2.1 mg/L/48hr
Static Bioassay Water flea: EC50 – 75.0 mg/L; 48hr
Static Bioassay Shrimp (mysidoposis bahia): LC50 – 87.6 mg/L/96hr
Sheepshead minnow: LC50 – 275mg/L/96hr
Fathead minnow: LC50 – 42.3 mg/L/96hr in hard water, 48.5mg/L/96hr in softwater.

FOR METHANOL:

Environmental Fate: When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released into the water, this material is expected to have a half-life between 1 and 10 days. When released into water, this material is expected to readily biodegrade. When released into the air, this material is expected to exist in the aerosol phase with a short half-life. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into air, this material is expected to have a half-life between 10 and 30 days. When released into the air, this material is expected to be readily removed from the atmosphere by wet deposition.

Environmental Toxicity: This material is expected to be slightly toxic to aquatic life.

SECTION 13 – DISPOSAL INFORMATION

PRODUCT DISPOSAL: When a decision is made to discard this material, as received, is it classified as a hazardous waste? Yes.
U.S. EPA Hazardous Waste Number: D001 (Ignitable).

WASTE FROM RESIDUES - CONTAMINATED PACKAGING: Residues of hazardous waste in empty containers should be managed according to 40 CFR 261.7

State or local laws may impose additional regulatory requirements regarding disposal.

SECTION 14 – TRANSPORT INFORMATION

DOT Information (49CFR 172.101)
PROPER SHIPPING NAME: Flammable liquid, N.O.S. (Contains xylene, ethyl benzene)
HAZARD CLASS: Class 3, Flammable liquid
UN / NA NUMBER: 1993, Guide 27
PACKING GROUP: III
QUANTITY LIMITATIONS: Passenger Aircraft/Rail – 60L
Cargo Aircraft Only – 220 L



MATERIAL SAFETY DATA SHEET

MAY NATIONAL PRIMER 2000

VESSEL STORAGE REQUIREMENTS: Category "A" - means the material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

SECTION 15 – REGULATORY INFORMATION

US FEDERAL REGULATIONS:

Occupational Health and Safety Administration (OSHA)

Ingredients listed on National Toxicology Program (NTP) Annual Report on Carcinogens

- ◆ None

Ingredients listed on International Agency for Research on Cancer (IARC) Monographs

The following ingredients are listed as Group 2B.

Group 2B is defined as: The agent is possibly carcinogenic to humans.

- ◆ Ethyl benzene 100-41-4

The following ingredient is listed as Group 3.

Group 3 is defined as: The agent (mixture or exposure circumstances) is not classifiable as to its carcinogenicity to humans.

- ◆ Xylene 1330-20-7

Toxic Substance Control Act (TSCA)

TSCA Status: All chemical substances found in this product comply with the Toxic Substances Control Act inventory reporting requirements.

Superfund Amendments and Reauthorization Act (SARA) Title III

- Section 302/304

These sections require emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) of 'Extremely Hazardous Substances' (EHS) listed in Appendix A of 40 CFR 355.

Chemical	CAS No.	Wt%		RQ (lbs)	TPQ (lbs)
Xylene	1330-20-7	7-13	1		None
Ethyl benzene	100-41-4	1-5	1		None
Methanol	67-56-1	by-product	1		None

- Section 311/312

These sections require Tier I/Tier II - Emergency and hazardous chemical inventory form.

Minimum thresholds have been established for Tier One/Tier Two reporting under Title III, Section 312. These thresholds are as follows:

For Extremely Hazardous Substances (EHSs) designated under Section 302 of Title III, the reporting threshold is 500 pounds (or 227 kg.) or the threshold planning quantity (TPQ), whichever is lower:

For all other hazardous chemicals for which facilities are required to have or prepare an MSDS, the minimum reporting threshold is 10,000 pounds (or 4,540 kg.).

Section 312 Hazard Class:

MATERIAL SAFETY DATA SHEET

MAY NATIONAL PRIMER 2000

Acute: Yes
 Chronic: No
 Fire: Yes
 Pressure: No
 Reactive: No

- Section 313

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act:

<i>Chemical</i>	<i>CAS No.</i>	<i>Wt%</i>		<i>Threshold Reporting %</i>
Xylene	1330-20-7	7-13	1.0	
Ethyl benzene	100-41-4	1-5	1.0	
Methanol	67-56-1	by-product	1.0	

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

Releases of CERCLA hazardous substances, in quantities equal to or greater than their reportable quantity (RQ), are subject to reporting to the National Response Center under CERCLA. Such releases are also subject to state and local regulations under Section 304 of SARA Title III (EPCRA). This material contains the following components and RQs on the CERCLA hazardous substance list.

<i>Chemical</i>	<i>CAS No.</i>	<i>Wt%</i>		<i>Reportable Quantity (RQ) in pounds</i>
Xylene	1330-20-7	7-13	100	
Ethyl benzene	100-41-4	1-5	1,000	
Methanol	67-56-1	by-product	5,000	

US STATE REGULATIONS:

California

California Safe Drinking Water and Toxic Enforcement Act – Proposition 65

This product does not contain any chemicals currently listed under California Proposition 65.

State Right-to-Know Regulations

States within the US that have promulgated State Right-to-Know regulations with chemical listing requirements including the chemicals in this product are provided below.

<i>Chemical</i>	<i>CAS No.</i>	<i>Wt%</i>		<i>States</i>
Xylene	1330-20-7	7-13		Florida, Massachusetts, Michigan, Minnesota, New Jersey, Pennsylvania, Washington
Ethyl benzene	100-41-4	1-5		Florida, Massachusetts, Minnesota, New Jersey, Pennsylvania, Washington
Methanol	67-56-1	by-product		Florida, Massachusetts, Michigan, Minnesota, New Jersey, Pennsylvania, Washington

INTERNATIONAL:

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.



MATERIAL SAFETY DATA SHEET

MAY NATIONAL PRIMER 2000

Canadian DSL

All ingredients in this product are currently listed on the Canadian Domestic Substances List (DSL) and would not be considered new for the purposes of the Canadian Environmental Protection Act (CEPA).

Note:

The recipient of this product should be aware of the possible existence of additional local regulations, which may be applicable to this product.

SECTION 16 – OTHER INFORMATION

These data are offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.