

RayCrete Part A MSDS for 2005  
Material Safety Data Sheet (MSDS)

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**SECTION 1 - IDENTIFICATION**


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PRODUCT IDENTIFIER..... 21757 - EZ Poly Multi-Mender 6 oz  
 CHEMICAL FAMILY..... Formulated Polyurethane Resin  
 DISTRIBUTED BY..... The Easthill Group dba/ The Eastwood Company  
 263 Shoemaker Road, Pottstown, PA 19464  
 USA & Canada: 800-345-1178; Outside USA: 610-323-2200  
 EMERGENCY CONTACT..... Chem-Trec 800-424-9300

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**SECTION 2 - HAZARDOUS INGREDIENTS**


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CHEMICAL NAME	PEL (OSHA)	TWA-(ACGIH)	CAS NUMBER
may contain silica, quartz, crystalline < 0.02%	0.1 mg/M3	0.1 mg/M3	14808-60-7

As defined by OSHA Hazard Communication Standard 29CFR1910.1200.

Crystalline silica quartz dust has been identified as a carcinogen or probable carcinogen by IARC.

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**SECTION 3 - Physical/Chemical Characteristics**


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BOILING POINT (F) (C) : ND	MELTING POINT (F)(C) : ND
VAPOR PRESSURE (MM HG) : ND	VOLATILE BY VOLUME : Nil
VAPOR DENSITY (AIR=1) : ND	EVAP. RATE (BUTYL ACETATE=1) : NA
SOLUBILITY IN WATER : Negligible	SPECIFIC GRAVITY (WATER=1) : ~1
APPEARANCE & ODOR : Pinkish paste, mild odor.	

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**SECTION 4 - Fire & Explosion Data**


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FLASH POINT (TEST METHOD) : >365 °F (PMCC) FLAMMABLE LIMITS: LEL:NA UEL: NA  
 : Nonflammable. NFPA: 0.  
 EXTINGUISHING MEDIA : Foam, dry chemical, carbon dioxide, water spray.  
 SPECIAL FIRE FIGHTING PROCEDURES : Fire fighters should wear self-contained breathing apparatus.  
 UNUSUAL FIRE & EXPLOSION HAZARDS : None

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**SECTION 5 - Reactivity Data**


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STABILITY : Stable. NFPA: 0  
 CONDITIONS TO AVOID : Water contamination to protect product quality.  
 INCOMPATIBILITY : Strong bases, alcohols, metal compounds, hydrofluoric acid.  
 HAZARDOUS DECOMPOSITION PRODUCTS : Oxides of carbon and nitrogen, traces of hydrogen cyanide. Reacts  
 with hydrofluoric acid to form toxic silicon tetrafluoride gas.  
 HAZARDOUS POLYMERIZATION : Will not occur.

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SECTION 6 - Health Hazard Data

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Routes Of Entry : Skin contact. NMIS: 1

## HEALTH HAZARDS/SIGNS OF OVEREXPOSURE

EYE CONTACT : May cause irritation.

SKIN CONTACT : May cause irritation on prolonged or repeated contact.

INHALATION : Unlikely unless heated or sprayed; vapors, when generated, can irritate the respiratory tract.

INGESTION : Effects are unknown.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

## EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT : Flush with water for 15 minutes; seek medical attention.

SKIN CONTACT : Remove with water; if redness or rash develops seek medical attention.

INHALATION : Remove to fresh air; if breathing is labored seek medical attention.

INGESTION : Do not induce vomiting unless instructed by a physician. Seek medical attention.

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SECTION 7 - Precautions For Safe Handling & Use

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## STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED:

Dike and contain; absorb or scrape up excess into a container for disposal.

## WASTE DISPOSAL METHOD:

This material contains a hazardous constituent as identified in RCRA Title 40 CFR261 Appendix VIII and must be disposed of in accordance with local, state, and federal regulations.

## PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Avoid prolonged or repeated skin contact; use with adequate ventilation; reseal partial containers; use good general housekeeping procedures.

## OTHER PRECAUTIONS:

When mixing with Part B follow precautions for handling isocyanates. Sanding of cured rigid urethanes creates dust which presents health, fire and explosion hazard. Urethane dust irritates the eyes, nose and respiratory tract and dust from partially cured urethanes can cause the same symptoms as overexposure to isocyanates. Do not inhale dust. Respiratory protection is required. Remove all ignition sources from areas where dust is present. Maintain clean work area by vacuuming up dust. Avoid clean-up methods that generate clouds, as explosive levels of urethane dust can be generated.

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SECTION 8 - Control Measures

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RESPIRATORY PROTECTION : Organic vapor respirator or self contained breathing apparatus suggested if heated or sprayed. Respiratory protection not required under normal conditions of use.

## VENTILATION

LOCAL EXHAUST : Recommended to remove heated vapors.

MECHANICAL (GENERAL) : Recommended

PROTECTIVE GLOVES : Rubber or plastic.

EYE PROTECTION : Safety goggles

OTHER PROTECTIVE CLOTHING : Clean long leg, long sleeve clothing.

WORK/HYGIENE PRACTICES : Wash thoroughly before eating, smoking or applying make-up.

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SECTION 9 - REGULATORY INFORMATION

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## FEDERAL REGULATIONS

DOT HAZARDOUS MATERIALS TRANSPORTATION 49CFR 172.101 OR OPTIONAL TABLE 172.102

HAZARD CLASS : NA

UN NUMBER : NA

PROPER SHIPPING NAME : NA

RESOURCE CONSERVATION AND RECOVERY ACT (40CFR261):

This material contains a hazardous constituent as identified in RCRA Title 40 CFR 261 Appendix VIII and must be disposed of in accordance with local, state and federal regulations.

CERCLA REQUIRES NOTIFICATION OF THE NATIONAL RESPONSE CENTER OF RELEASE OF QUANTITIES OF HAZARDOUS SUBSTANCES EQUAL TO OR GREATER THAN THE REPORTABLE QUANTITIES (RQ'S) IN 40CFR302.4:

COMPONENTS THAT REQUIRE REPORTING	RQ	%OF REPORTABLE COMPONENT
None		

SARA TITLE III REQUIRES EMERGENCY PLANNING BASED ON THRESHOLD PLANNING QUANTITIES (TPQ'S) AND RELEASE REPORTING BASED ON REPORTABLE QUANTITIES (RQ's) IN 40CFR355 (USED FOR SARA 302, 304, 311 AND 312):

COMPONENTS THAT REQUIRE REPORTING	TPQ	RQ	%OF REPORTABLE COMPONENT
None			

SARA TITLE III SECTION 313 SUPPLIER NOTIFICATION:

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 OF 1986 AND OF 40CFR372. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL:

CAS NUMBER	CHEMICAL NAME	% BY WEIGHT
None		

TSCA INVENTORY STATUS (40CFR710) : All components of this formulation are listed on the TSCA inventory.

## STATE REGULATIONS

CALIFORNIA PROPOSITION 65:

This material contains a chemical which the State of California has found to cause cancer.

Date Prepared : 4/17/2005

Prepared By : Eric R. Nelson, Ph.D.

Title : Chief Technical Officer

Revision # : RC-01-A-0010

Abbreviations:

NE - Not Established

ND - Not Determined

NA - Not Applicable

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**SECTION 1 - IDENTIFICATION**


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**SECTION 2 - Hazardous Ingredients**


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CHEMICAL NAME	PEL (OSHA)	TWA-(ACGIH)	CAS NUMBER
4,4' Methylene bis (phenylisocyanate)	0.02ppm	0.005ppm	101-68-8
Polymethylene polyphenyl isocyanate	None Established	None Established	9016-87-9
may contain silica, quartz, crystalline < 0.002%	0.1 mg/M3	0.1 mg/M3	14808-60-7

As defined by OSHA Hazard Communication Standard 29CFR1910.1200.

Crystalline silica quartz dust has been identified as a carcinogen or probable carcinogen by IARC.

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**SECTION 3 - PHYSICAL/CHEMICAL CHARACTERISTICS**


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BOILING POINT (F) (C)	: (@ 5mg Hg) 392 °F	MELTING POINT (F)(C)	: ND
VAPOR PRESSURE (MM HG)	: (@25 °C)<0.00001	VOLATILE BY VOLUME	: Nil
VAPOR DENSITY (AIR=1)	: Approx. 8.6	EVAP. RATE (BUTYL ACETATE=1)	: NA
SOLUBILITY IN WATER	: Reacts with water	SPECIFIC GRAVITY (WATER=1)	: 1.63
APPEARANCE & ODOR	: Greenish paste, mild odor.		

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**SECTION 4 - Fire & Explosion Data**


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FLASH POINT (TEST METHOD) : 390 °F (COC) FLAMMABLE LIMITS: LEL:NA UEL: NA  
 : Nonflammable. NFPA: 1.  
 EXTINGUISHING MEDIA : Foam, dry chemical, carbon dioxide, water spray.  
 SPECIAL FIRE FIGHTING PROCEDURES : Fire fighters should wear self-contained breathing apparatus.  
 UNUSUAL FIRE & EXPLOSION HAZARDS : Avoid water contamination in closed containers or confined spaces as carbon dioxide and exothermic heat are evolved. Reacts with hydrofluoric acid to form toxic silicon tetrafluoride gas.

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**SECTION 5 - Reactivity Data**


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STABILITY : Stable. NFPA: 1

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INCOMPATIBILITY	: Water, acids, strong bases, alcohols, metal compounds, and surface active agents; water reacts to form carbon dioxide, exothermic heat and insoluble urea; the combined effect of carbon dioxide and heat could build enough pressure to rupture a closed container; the water reaction is slow at temperatures below 120 °F (49 °C), but accelerated at higher temperatures and in the presence of strong bases and certain metal compounds.
HAZARDOUS DECOMPOSITION PRODUCTS	: Isocyanate vapor, oxides of carbon and nitrogen, trace HCN. Reacts with hydrofluoric acid to form toxic silicon tetrafluoride gas.
HAZARDOUS POLYMERIZATION	: May occur.
CONDITIONS TO AVOID	: Strong bases, metal compounds, water over 120 °F (49 °C), and temperatures above 347 °F (175 °C).

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## SECTION 6 - HEALTH HAZARD DATA

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Routes Of Entry : Inhalation and skin contact. NMIS: 1

### HEALTH HAZARDS/SIGNS OF OVEREXPOSURE

EYE CONTACT	: May cause irritation.
SKIN CONTACT	: May cause irritation or possible allergic sensitivity.
INHALATION	: May cause respiratory sensitization in susceptible individuals; at room temperature, vapors are minimal due to low vapor pressure; if heated or sprayed as an aerosol, excessive concentrations are attainable that could be hazardous on single exposure; excessive exposure may cause irritation of the eyes, upper respiratory tract and lungs; effects may be delayed; decreased ventilatory capacity has been associated with exposure to similar isocyanates; it is possible that exposure to MDI may cause similar impairment of lung function.
MOUTH AND STOMACH TISSUES	: May have corrosive effects on the linings of the mouth and stomach; symptoms can include sore throat, abdominal pain, nausea, vomiting and diarrhea.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Preexisting respiratory disorders.

### EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT	: Flush with water for 15 minutes; seek medical attention.
SKIN CONTACT	: Remove with soap and water; if redness or rash develops seek medical attention.
INHALATION	: Remove from exposure immediately; if breathing is impaired oxygen should be administered by trained personnel; seek medical attention.
INGESTION	: Do not induce vomiting unless instructed by a physician. Seek medical attention.

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## SECTION 7 - PRECAUTIONS FOR SAFE HANDLING & USE

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### STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED:

Dike and contain; cover liquid with absorbent material; only properly protected personnel should remain in the area; place in open top container; remove to well ventilated area and treat with dilute ammonia solution; leave vented 48 hours.

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**WASTE DISPOSAL METHOD:**

This material contains a hazardous constituent as identified in RCRA Title 40 CFR261 Appendix VIII and must be disposed of in accordance with local, state, and federal regulations.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:**

Harmful if inhaled; may cause eye and skin irritation; vapors, which are significant if heated or sprayed, can cause allergic respiratory reaction; avoid contact with eyes, skin and clothing; protect from moisture contamination; reseal partial containers; use good general housekeeping procedures.

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**SECTION 8 - Control Measures**


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**RESPIRATORY PROTECTION** : In areas where the PEL is exceeded use self contained breathing apparatus. Organic vapor respirator or self contained breathing apparatus suggested if heated or sprayed. Respiratory protection not required under normal conditions of use.

**VENTILATION**

**LOCAL EXHAUST** : Recommended to control source of vapors.

**MECHANICAL (GENERAL)** : Recommended

**PROTECTIVE GLOVES** : Rubber or plastic.

**EYE PROTECTION** : Safety goggles.

**OTHER PROTECTIVE CLOTHING** : Clean long leg, long sleeve clothing.

**WORK/HYGIENE PRACTICES** : Wash thoroughly before eating, smoking or applying make-up.

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**SECTION 9 - REGULATORY INFORMATION**


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**FEDERAL REGULATIONS**

DOT Hazardous Materials Transportation 49CFR 172.101 or Optional Table 172.102

**HAZARD CLASS** : NA

**UN NUMBER** : NA

**PROPER SHIPPING NAME** : NA

**RESOURCE CONSERVATION AND RECOVERY ACT (40CFR261):**

This material contains a hazardous constituent as identified in RCRA Title 40 CFR 261 Appendix VIII and must be disposed of in accordance with local, state and federal regulations.

**CERCLA REQUIRES NOTIFICATION OF THE NATIONAL RESPONSE CENTER OF RELEASE OF QUANTITIES OF HAZARDOUS SUBSTANCES EQUAL TO OR GREATER THAN THE REPORTABLE QUANTITIES (RQ'S) IN 40CFR302.4:**

COMPONENTS THAT REQUIRE REPORTING    RQ    %OF REPORTABLE COMPONENT

None

**SARA TITLE III REQUIRES EMERGENCY PLANNING BASED ON THRESHOLD PLANNING QUANTITIES (TPQ'S) AND RELEASE REPORTING BASED ON REPORTABLE QUANTITIES (RQ's) IN 40CFR355 (USED FOR SARA 302, 304, 311 AND 312):**

COMPONENTS THAT REQUIRE REPORTING    TPQ    RQ    %OF REPORTABLE COMPONENT

None

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## SARA TITLE III SECTION 313 SUPPLIER NOTIFICATION:

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 OF 1986 AND OF 40CFR372. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL:

CAS NUMBER	CHEMICAL NAME	% BY WEIGHT
101-68-8	4,4' Methylene bis (phenylisocyanate)	8.8 max
9016-87-9	Polymethylene polyphenyl isocyanate	12.3 max

TSCA INVENTORY STATUS (40CFR710) : All components of this formulation are listed on the TSCA inventory.

## STATE REGULATIONS

## CALIFORNIA PROPOSITION 65:

This material contains a chemical which the State of California has found to cause cancer.

## FLORIDA, MASSACHUSETTS, MINNESOTA, PENNSYLVANIA AND WASHINGTON SUBSTANCE LIST:

Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in formulations above concentrations listed.

EXTRAORDINARILY HAZARDOUS SUBSTANCES ( $\Rightarrow$ 0.0001%):

CHEMICAL NAME	CAS NUMBER	% BY WEIGHT
None		

HAZARDOUS SUBSTANCES ( $\Rightarrow$ 1.0%):

CHEMICAL NAME	CAS NUMBER	% BY WEIGHT
4,4' Methylene bis (phenylisocyanate)	101-68-8	8.8 max

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Date Prepared : 4/17/2005

Prepared By : Eric R. Nelson, Ph.D.

Title : Chief Technical Officer

Revision # : RC-01-B-0010

## Abbreviations:

NE - Not Established

ND - Not Determined

NA - Not Applicable