

PRODUCT NAME: ELASTUFF 102 CLEAR

PRODUCT CODE: EF-102-CL

~~~~ SECTION 1 ~~~~ MANUFACTURER IDENTIFICATION ~~~~

Manufacturer's Name : UNITED COATINGS MANUFACTURING CO  
 Address : 19011 EAST CATALDO AVE.  
 : SPOKANE VALLEY, WASHINGTON 99016-9423  
 : INITIAL(FIRST CALL)CHEMTREC(800)424-9300  
 INFORMATION PHONE : (509)926-7143  
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~~~~ SECTION 2 ~~~~ HAZARDOUS INGREDIENTS/SARA III INFORMATION ~~~~

| Reportable Components | CAS Number | MM HG @ Temp | Weight % |
|---|------------|------------------------------|----------|
| Prepol | MIXTURE | UKN UKN | 37 |
| Prepol contains the following: | | | |
| Dicyclohexylmethane-4,4'-diisocyanate, CAS# 5124-30-1 ACGIH, TWA: 0.005ppm. | | | |
| Hexanedioic acid CAS# 51601-35-5 No exposure limits have been established. | | | |
| Ethyl 3-ethoxypropionate CAS# 763-69-9 No occupational exposure limits have been established for this chemical. The manufacturer of this chemical suggests a guideline of 50ppm TWA, 100ppm STEL. | | | |
| ~ | | | |
| * Xylol (Xylene mixture) | 1330-20-7 | 5.1 20C | 21 |
| Xylol contains: | | | |
| * Xylene (mixed isomers) CAS# 1330-20-7 | | | |
| ACGIH TLV, TWA: 100ppm STEL: 150ppm, | | | |
| OSHA PEL, TWA: 100ppm, STEL: 150ppm. (75%) | | | |
| ~ | | | |
| * Ethylbenzene, CAS#100-41-4, ACGIH TLV, TWA: 100ppm, STEL: 125ppm, OSHA PEL, TWA: 100ppm, STEL: 125ppm. (25%). | | | |
| ~ | | | |
| * Toluene CAS#108-88-3, (0.6%) ACGIH TLV, TWA: 50ppm (SKIN), OSHA PEL, TWA: 100ppm, STEL: 150ppm. (.3%-1.5%). | | | |
| ~ | | | |
| Hexanedioic acid polymer | 51601-35-5 | N/D N/D | 19 |
| No exposure limits have been established. | | | |
| ~ | | | |
| Dicyclohexylmethane-4,4'-diisocyanate | 5124-30-1 | 1.5x10 ⁻⁵ 77F/25C | 15 |
| Dicyclohexylmethane-4,4'-diisocyanate, CAS# 5124-30-1 ACGIH, TWA: 0.005ppm. | | | |
| ~ | | | |
| Aluminum trihydroxide | 21645-51-2 | N/A N/A | 14 |
| OSHA, PEL 15mg/m3 total dust, 5mg/m3 respirable dust. | | | |
| ACGIH, TLV 10mg/m3 total dust | | | |
| ~ | | | |
| # Crystalline Silica | 14808-60-7 | N/A N/A | 11.3 |
| OSHA PEL: EXPOSURE TO AIRBORNE CRYSTALLINE SILICA SHALL NOT EXCEED AN 8 HOUR TIME WEIGHTED AVERAGE LIMIT AS STATED IN 29CFR1910.1000, TABLE Z-1-A AIR CONTAMINATES, SPECIFICALLY; SILICA, CRYSTALLINE QUARTZ (RESPIRABLE) 0.1 MG/M3. ACGIH TLV-TWA: CRYSTALLINE QUARTZ (RESPIRABLE DUST) 0.1 MG/M3. NIOSH MAXIMUM PERMISSIBLE CONC. 0.05 MG/M3, 10 HR. WORK DAY, 40 HR. WEEK. | | | |
| Nepheline syenite, various grades. | 37244-96-5 | N/A N/A | 6 |
| No exposure limits have been established for this material. | | | |
| ~ | | | |
| Tris(monochloropropyl)phosphate | 13674-84-5 | UKN UKN | 4 |
| No exposure guidelines have been established | | | |
| ~ | | | |

Ethyl 3-ethoxypropionate 763-69-9 1.5 77F/25C 4
 No occupational exposure limits have been established for this chemical.
 The manufacturer of this chemical suggests a guideline of 50ppm twa,
 100ppm STEL.

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*# Decabromodiphenyloxide (DBDPO)1163-19-5 N/A N/A 2.8
 Exposure limits not established by ACGIH or OSHA.
 AIHA WEEL (workplace environmental exposure level) 5 mg/m3 8 hour TWA.

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Silicon Dioxide (Synthetic) 67762-90-7 N/A N/A 1
 Silicon Dioxide (Synthetic) CAS#67762-90-7,
 No OEL's for this specific ingredient, OEL's for Silica CAS# 7631-86-9:
 OSHA PEL: 6mg/m3, ACGIH TLV: 10mg/m3

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* p-Toluenesulfonyl Isocyanate (PTSI)4083-64-1 1.0 212F100C 1
 PTSI CAS# 4083-64-1: No OEL's established.
 Contains trace amounts of the following:
 Monochlorobenzene: CAS #108-90-7, ACGIH TLV: 75ppm. OSHA PEL 75ppm
 Tosyl chloride: CAS #98-59-9, No OEL's established.
 ACGIH TLV for MDI: 0.005ppm.

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*# Antimony oxide 1309-64-4 N/A N/A 1.2
 Antimony Oxide Contains the following:
 Antimony Oxide, CAS#1309-64-4
 Antimony Oxide is a IARC Group IIB listed CARCINOGEN
 ACGIH: 0.5 mg/m3 TWA OSHA PEL: 0.5 mg/m3
 Arsenic, (<0.10%) CAS#7440-38-2
 ACGIH: 0.01mg/m3 TWA , OSHA PEL: 0.01mg/m3
 Lead CAS#7439-92-1, (<0.10%) ACGIH/TWA: 0.05mg/m3 OSHA PEL: 0.05mg/m3

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* Indicates toxic chemical(s) subject to the reporting requirements
 of section 313 of Title III and of 40 CFR 372.
 #Indicates carcinogenic chemical.

This MSDS may be used for other colors and container sizes
 of this product.

Indicates carcinogenic chemical.
 The hazards of both part A and part B will be exhibited when both
 parts are combined. This MSDS may be used for other colors and
 container sizes of this product.

~~~~ SECTION 3    ~~~~ HAZARDS IDENTIFICATION ~~~~~

Potential Health Effects

Eyes:

Contact with isocyanates may result in conjunctival  
 irritation and mild corneal opacity. Isocyanate is reported to induce  
 chemical burns in rabbit eye studies. A similar degree of eye injury  
 may develop after contact with human eyes.

Skin:

Absorption is believed to generally be too slow to produce  
 signs of acute systemic poisoning. However, animal studies have shown  
 that respiratory sensitization can be induced by skin contact with  
 known respiratory sensitizers, including isocyanates. Isocyanates are

a primary skin irritant--they react with skin protein and moisture and can cause irritation. Symptoms can include: redness, swelling, rash, scaling or blistering. Isocyanates are also strong skin sensitizers. Experience indicates that direct skin contact is the route of exposure most likely to cause skin sensitization. Once sensitized, an individual may react even to airborne levels below the TLV with the following symptoms; itching and tingling of the earlobes and neck, rash, hives, swelling of the arms and legs or other symptoms common to allergic dermatitis. These symptoms may be immediate or delayed several hours. Prolonged contact can cause reddening, swelling, rash, scaling or blistering. In those who have developed a skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material or even as a result of vapor-only exposure.

**Ingestion:**

ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONITIS, WHICH CAN BE FATAL. INGESTION CAN RESULT IN IRRITATION OR CHEMICAL BURNS OF THE MOUTH, PHARYNX, ESOPHAGUS AND STOMACH/DIGESTIVE TRACT. INJURY MAY BE SEVERE AND CAUSE DEATH. KEEP PERSON WARM AND QUIET.

**Inhalation:**

Repeated or prolonged exposures to vapors or mists are irritating to the respiratory tract. May cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects, including death. Inhalation of vapors and mists of isocyanate at concentrations above recommended exposure limits can irritate the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function. Persons with a preexisting, nonspecific bronchial hyper-reactivity can respond to concentrations below the intended recommended exposure level with similar symptoms as well as an asthma attack. Exposure to higher levels may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in the lungs). These effects are usually reversible. Chemical or hypersensitive pneumonitis, with flu-like symptoms (e.g., fever, chills) has also been reported.

~~~~ SECTION 4 ~~~~ FIRST AID MEASURES ~~~~

Eyes:

Immediately flush with copious amounts of water for at least 15 minutes. If redness, itching, or burning sensations persist consult a physician or ophthalmologist immediately.

Skin:

Remove product and immediately flush affected area with water for at least 15 minutes. Cover the affected area with a sterile dressing or clean sheeting and consult a physician immediately, except for the most minor, superficial and localized burns. Do not apply greases or ointments. Control shock if present. Discard or launder contaminated clothing before reuse. Contaminated leatherwear should be discarded.

Ingestion:

Do not induce vomiting. Give 1 to 2 cups milk or water. If

vomiting occurs, keep victim's head below the hips to prevent breathing vomit into the lungs. Consult a physician immediately.

Inhalation:

Move to fresh air; administer oxygen by a qualified individual or artificial respiration as needed. Consult a physician immediately. Asthmatic-type symptoms may develop and may be immediate or delayed several hours. Treatment is essentially symptomatic.

Note to Physician:

Eyes - Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation frequently. Workplace vapors could produce reversible corneal epithelial edema impairing vision.

Skin- this compound is a potent skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn.

Ingestion - Treat symptomatically. There is no specific antidote.

Inducing vomiting is contraindicated because of the irritating nature of the compound.

Inhalation- treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from any exposure to Issocyanate. Throughout a symptomatic victim's treatment course, monitor the ECG, chest x-ray, pulse oximetry, peak airflows, arterial blood gases, serum electrolytes, and renal and hepatic function

~~~~ SECTION 5 ~~~~ FIRE FIGHTING MEASURES ~~~~~

**Flammable Properties**

Flash Point: 26.7C

Lower Flammable Limits: 1

Upper Flammable Limit: 7

Auto Ignition Temperature: Not available

**Extinguishing Media:**

Foam, CO2, dry chemical, water fog or spray, as appropriate for surrounding fire.

**Special Fire Fighting Procedures:**

Do not enter any enclosed or confined space without full protective equipment, including self-contained breathing apparatus (pressure-demand OSHA/NIOSH approved or equivalent) to protect against the hazardous effects of combustion products and oxygen deficiency.

~~~~ SECTION 6 ~~~~ ACCIDENTAL RELEASE MEASURES ~~~~~

Small Spill:

Clear the area of unnecessary personnel. Shut down HVAC equipment if inside building or near HVAC system to prevent contaminating building. Ventilate area as vapors are harmful, heavier than air and are flammable or combustible and may migrate to an ignition source. Use only explosion proof equipment. Insure a trained response team is in emergency protective equipment. Prevent further spillage and contain the spill using dikes made of sand, earth or spill pillows. Cover the spill area with a non-combustible absorbent material (e.g., absorbent clay, earth, sand) to absorb as much liquid

as possible. Using non-sparking tools, carefully shovel the absorbent into open top containers. Do not fill to the top or cover the containers. Prepare a decontaminating solution as follows:

Option 1: consists of a solution 90% water, 8% concentrated ammonia solution and 2% liquid detergent.

Option 2: consists of a solution 90-95% water, 5-10% sodium carbonate and 0.2-0.5% liquid detergent.

Pour the liquid decontaminant liberally over the remaining spill area and spread with a broom or squeegee to insure contact. Let stand 10-15 minutes @25c(77f), longer at lower temperatures. Then wash down the area with plenty of water. In a well ventilated area, add enough liquid decontaminant solution to the containers with the absorbed spill material to obtain an approximate 10:1 ratio of decontaminate solution to spill material. Mix the liquid-absorbent slurry and let stand for 12-24 hours. Stir periodically, or the liquid-absorbent slurry may solidify. Leave the lids on loosely. After decontamination solution has been in contact with the spilled material for 24-48 hours, and the evolved carbon dioxide has vented away, tighten down the lids and dispose of the mixture in accordance with local, state and federal regulations. Test the area for residual solvent and isocyanate vapors before allowing workers to re-enter the area. When safe working conditions have been re-established, remove and decontaminate all equipment used.

Large Spill:

Use same procedure as small spill.

~~~~ SECTION 7 ~~~~ HANDLING AND STORAGE ~~~~

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#### Handling & Storage:

Store in a cool, dry, well ventilated area in tightly closed containers to prevent moisture contamination. Unused product remaining in opened containers must be purged with dry nitrogen before resealing to prevent CO2 pressure build-up due to moisture contamination. If moisture or water contamination is suspected, do not reseal. Open sealed drums slowly to release any pressure due to possible CO2 pressure build-up.

#### Other Precautions:

DO NOT PUNCTURE, CUT, GRIND, WELD, BRAZE, SOLDER OR DRILL ON OR NEAR THIS CONTAINER OR OTHERWISE EXPOSE SUCH CONTAINER TO HEAT, FLAME, SPARKS, STATIC ELECTRICAL CHARGES, ELECTRICITY OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND/OR EMIT TOXIC VAPORS RESULTING IN INJURY OR DEATH. CLOSED CONTAINERS MAY EXPLODE DUE TO PRESSURE BUILD-UP IF EXPOSED TO WATER OR MOISTURE OR EXTREME HEAT. CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, WILL RETAIN PRODUCT RESIDUE AND VAPORS. ALWAYS OBEY HAZARD WARNINGS AND HANDLE EMPTY CONTAINERS AS IF THEY WERE FULL. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. AVOID PROLONGED OR REPEATED BREATHING OF VAPOR OR SPRAY MIST. USE ONLY IN A WELL VENTILATED AREA. KEEP OUT OF THE REACH OF CHILDREN.

~~~~ SECTION 8 ~~~~ EXPOSURE CONTROLS/PERSONAL PROTECTION ~~~~

Engineering Controls:

In outside spray, mixing and rolling applications situate workers upwind of operation & provide airflow in a downwind direction so as to carry fumes and residual spray away from workers.

Hazard control from vapor or spray mist is ideally performed by the use of engineering controls. Effective engineering controls should be used whenever possible to eliminate and/or reduce worker exposure to all respiratory hazards. General ventilation, local ventilation, or isolation may prove adequate to keep airborne concentrations of diisocyanate below the exposure limit. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental concentrations.

Respiratory Protection:

The hazards of both part A and part B will be exhibited when combined.

Good industrial hygiene practice dictates that when Isocyanate-based coatings are mixed/sprayed and applied, some Type of respiratory protection should be worn.

A properly fitted air-purifying (combination organic vapor and particulate) respirator, proven by test to be effective in isocyanate containing spray/vapors during coating operations, and used in accordance with the recommendations of the manufacturer, can be used when the following conditions are met:

- concentration of vapors is unknown.
 - or concentrations exceed those in section II.
 - or the airborne Isocyanate (polymeric, oligomeric) concentration exceeds 5mg/m³ Averaged Over 8 Hours) OR 10mg/m³ average over 15 Minutes
 - or operations are being performed in confined space.
 - and a NIOSH certified end of service life indicator or a change schedule based upon objective information or data is used to ensure that cartridges are replaced before the end of their service life. In addition, pre-filters should be changed whenever breathing resistance increases due to particulate buildup.
- if a NIOSH certified end of service life indicator or a change schedule based upon objective information or data cannot be met, then a supplied air respirator must be used.

Monitoring: Refer To Patty's Industrial Hygiene And Toxicology-Volume 1(3rd Edition) Chapter 17 Volume III (First Edition) Chapter 3, for guidance concerning appropriate air sampling strategy to determine airborne concentrations of Isocyanate.

Medical surveillance: Supervision of all employees who handle or come in contact with this product is recommended. This should include pre-employment and periodical medical examinations with respiratory function test (fev, fvc as a minimum). Persons with asthma-type conditions, chronic bronchitis, other chronic respiratory diseases or recurrent skin eczema or sensitization should be excluded from working with Isocyanate. Once a person is diagnosed as sensitized to Isocyanate, no further exposure can be permitted

Additional protective measures safety showers and eyewash stations should be readily available to work area. Educate and train employees in safe use of product. Follow all MSDS and label instructions.

Skin Protection:

Chemical resistant gloves determined to be impervious under the conditions of use.

Eye Protection:

USE SAFETY GLASSES WITH SIDE SHIELDS (ANSI Z87.1 OR APPROVED EQUIVALENT). EYE PROTECTION WORN MUST BE COMPATIBLE WITH RESPIRATORY PROTECTION SYSTEM EMPLOYED. FACILITIES STORING OR UTILIZING THIS MATERIAL SHOULD BE EQUIPPED WITH AN EYEWASH FACILITY

~~~~ SECTION 9 ~~~~ PHYSICAL AND CHEMICAL PROPERTIES ~~~~

Boiling Range: 138.9C - 4046F/2230C

Melting Point: NOT ESTABLISHED

Specific Gravity(H2O=1): 1.3048

Vapor Density(Air=1): Heavier than air

Vapor Pressure: NO DATA

Evaporation Rate(N-Butyl Acetate=1) : Slower than ether

Coating V.O.C.: 2.71 lb/gl                      Coating V.O.C.: 325 g/l

Material V.O.C.: 2.71 lb/gl                      Material V.O.C.: 325 g/l

Solubility in Water: Reacts slowly to liberate CO2, slightly soluble

Appearance: Moderately viscous pigmented liquid, various colors.

Odor: Aromatic odor.

pH: N/A

~~~~ SECTION 10 ~~~~ STABILITY & REACTIVITY DATA ~~~~

Stability:

Stable

Conditions To Avoid:

AVOID HEAT, SPARKS, OPEN FLAME AND OTHER IGNITION SOURCES, EXTREME HEAT CONDITIONS AND WATER CONTACT. REACTION WITH WATER CAN RESULT IN PRESSURE BUILDUP OF THE CONTAINER RESULTING IN RUPTURE OF THE CONTAINER.

Incompatible Materials:

Avoid water, alcohol, ammonia, amines, alkalies and acids. Some reactions can be violent.

Hazardous Decomposition Products

Products of combustion include isocyanate vapor & mist, carbon monoxide, carbon dioxide, hydrogen cyanide, nitrogen oxides and oxides and unidentified products in fumes and smoke.

Hazardous Polymerization:

May occur. Contact with moisture or other materials, which react with isocyanates, may cause polymerization.

~~~~ SECTION 11 ~~~~ TOXICOLOGICAL INFORMATION ~~~~

\*Data is for individual components of preparation.

Materials having a known chronic/acute effects on eyes:

THE SOLVENT LIQUID COMPONENT, CONSISTING OF XYLENE CAS#1330-

20-7, TOLUENE CAS#108-88-3, ETHYLBENZENE CAS#100-41-4, IS PROBABLY A MILD IRRITANT, BASED ON ANIMAL INFORMATION. EYE IRRITATION HAS BEEN REPORTED AT VAPOR LEVELS AS LOW AS 200 PPM. CORNEAL VACUOLES (POCKETS

OF FLUID OR AIR IN THE CORNEA) HAVE ALSO BEEN REPORTED FOLLOWING EXPOSURE TO UNDEFINED VAPOR CONCENTRATIONS. THIS EFFECT WAS REVERSIBLE WITHIN 8 TO 11 DAYS FOR 7 OF 8 WORKERS.

THE SOLVENT LIQUID COMPONENT, CONSISTING OF XYLENE CAS#1330-20-7, TOLUENE CAS#108-88-3, ETHYLBENZENE CAS#100-41-4, IS PROBABLY A MILD IRRITANT, BASED ON ANIMAL INFORMATION. EYE IRRITATION HAS BEEN REPORTED AT VAPOR LEVELS AS LOW AS 200 PPM. CORNEAL VACUOLES (POCKETS OF FLUID OR AIR IN THE CORNEA) HAVE ALSO BEEN REPORTED FOLLOWING EXPOSURE TO UNDEFINED VAPOR CONCENTRATIONS. THIS EFFECT WAS REVERSIBLE WITHIN 8 TO 11 DAYS FOR 7 OF 8 WORKERS.

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Materials having a known dermal toxicity.

TOXICOLOGICAL DATA IS FOR INDIVIDUAL COMPONENTS

ETHYLBENZENE CAS#100-41-1: LD50 DRML/RABBIT 17800MG/KG.

XYLENE CAS#1330-20-7: LD50 DRML/RABBIT 2ML/KG.

TOLUENE CAS#108-88-3 RABBIT 435 mg mild.

CRYSTALLINE SILICA, CAS: 14808-60-7: SKIN IRRITATION-DUE TO THE HIGH TENDANCY TO ABSORB MOISTURE(AND OILS),MANY INDIVIDUALS EXPERIENCE EXCESSIVELY DRY, CHAPPED SKIN WITH PROLONGED OR REPEATED EXPOSURE.

TITANIUM DIOXIDE CAS#13463-67-7 Dermal LD50 (rabbit) >10 g/kg

Materials having a known oral toxicity.

TOXICOLOGICAL INFORMATION BASED ON INDIVIDUAL COMPONENTS

TITANIUM DIOXIDE CAS#13463-67-7 Oral LD50 (rat) >25 g/kg

TOLUENECAS#108-88-3 ORAL-RAT LD50 636 mg kg-1,ORAL-HUMAN LDLO 50 mg kg-1

XYLENE CAS#1330-20-7: LD50 ORAL/RAT 4300MG/KG.

ETHYL BENZENE CAS#100-41-4: LD50 ORAL/RAT 3500MG/KG.

Materials having a known Inhalation hazard:

TOXICOLOGICAL INFORMATION IS FOR INDIVIDUAL COMPONENTS

ETHYLBENZENE CAS#100-41-4 LCLo (human): 10000 ppm(V) /6 h

XYLENE CAS#1330-20-7: LC50 INHL/RAT 5000PPM/4H.

TOLUENE CAS#108-88-3 IHL-MAMMAL LC50 30 g m-3

SILICA,CRYSTALLINE CAS#14808-60-7 RESPIRABLE CRYSTALLINE SILICA (QUARTZ) CAN CAUSE SILICOSIS, A FIBROSIS (SCARRING) OF THE LUNGS. SILICOSIS MAY BE PROGRESSIVE; IT MAY LEAD TO DISABILITY AND DEATH.

TITANIUM DIOXIDE CAS#13463-67-7 Inhalation LC50 (rat)>6.82 mg/l(4 hr)

Identified Acute/ Short-term Effects:

ACUTE: EUPHORIA AND CENTRAL NERVOUS DEPRESSION, INCLUDING IMPAIRED MOTOR COORDINATION, SLURRED SPEECH, LOSS OF MUSCLE COORDINATION, STUPOR, AND COMA. DEATH MAY OCCUR DUE TO RESPIRATORY ARREST AND CONSEQUENT ASPHYXIA.

Identified Carcinogens/Longterm Effects:

CONTAINS CRYSTALLINE SILICA CAS#14808-60-7. OVEREXPOSURE TO

RESPIRABLE CRYSTALLINE SILICA DUST CAN CAUSE SILICOSIS, A FORM OF PROGRESSIVE PULMONARY FIBROSIS. THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) HAS EVALUATED IN VOLUME 68, MONOGRAPHS ON THE EVALUATION OF THE CARCINOGENICITY RISK OF CHEMICALS TO HUMANS, CRYSTALLINE SILICA IN THE FORM OF QUARTZ AND AMORPHOUS SILICA (1997), THAT THERE IS "SUFFICIENT EVIDENCE FOR THE CARCINOGENICITY OF INHALED CRYSTALLINE SILICA IN THE FORM OF QUARTZ OR CRISTOBALITE FROM OCCUPATIONAL EXPOSURES HAS BEEN CLASSIFIED AS A GROUP 1 CARCINOGEN BY THE IARC.

CONTAINS TOLUENE CAS#108-88-3 CHRONIC EXPOSURE TO ORGANIC SOLVENTS HAS BEEN ASSOCIATED WITH VARIOUS NEUROTOXIC EFFECTS INCLUDING PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE DERMATITIS. MAY CAUSE CARDIAC SENSITIZATION AND SEVERE HEART ABNORMALITIES. MAY CAUSE LIVER AND KIDNEY DAMAGE.

CONTAINS XYLENE CAS# 1330-20-1. PROLONGED OR REPEATED EXPOSURE TO HIGH CONCENTRATIONS OF XYLENE MAY CAUSE NEURAL DYSFUNCTION. LABORATORY ANIMALS EXPOSED TO HIGH DOSES OF XYLENE SHOWED EVIDENCE OF EFFECTS IN THE LIVER, KIDNEYS, LUNGS, SPLEEN, HEART AND ADRENALS. RATS EXPOSED DURING PREGNANCY SHOWED EMBRYO/FETOTOXIC EFFECTS. XYLENE HAS ALSO BEEN SUGGESTED TO CAUSE HEARING LOSS.

Ethylbenzene CAS# 100-41-4 has been classified by IARC as 2B or "possibly carcinogenic to humans." The state of California considers Ethylbenzene to be a carcinogen.

Identified Teratogens:

Xylene has been shown to cause birth defects in laboratory animal studies. The relevance of these findings to humans is uncertain.

Identified Reproductive toxins :

Toluene CAS# 108-88-3. The state of California considers Toluene to cause development effects.

Identified Mutagens:

RESULTS OF IN VITRO (TEST TUBE) AND IN VIVO MUTAGENICITY TESTS ON XYLENE HAVE BEEN NEGATIVE.

~~~~ SECTION 12 ~~~~ ECOLOGICAL INFORMATION ~~~~

Ecotoxicological effects on plants and animals:

TITANIUM DIOXIDE CAS#13463-67-7 96 Hr LC50 (Fathead minnows)>1,000 mg/l

TOLUENE CAS#108-88-3 Ecotoxicity: Bluegill LC50=17 mg/L/24H Shrimp LC50=4.3 ppm/96H Fathead minnow

LC50=36.2 mg/L/96H Sunfish (fresh water) TLm=1180 mg/L/96H

XYLENE 1330-20-7 WITH ETHYLBENZENE CAS#100-41-4 BIOLOGICAL EFFECTS: TOXIC FOR AQUATIC ORGANISMS HAZARD FOR DRINKING WATER SUPPLIES. RISK OF FORMATION OF EXPLOSIVE VAPOURS ABOVE WATER SURFACE. Fish toxicity: L.idus LC50: 86 mg/l ; Crustaceans: Daphnia magna LC50: 165 mg/l ; aquatic organisms LC50: 10 mg/l /96 h

ETHYLBENZENE CAS#100-41-4 BIOLOGICAL EFFECTS: TOXIC FOR AQUATIC ORGANISMS HAZARD FOR DRINKING WATER SUPPLIES. RISK OF FORMATION OF EXPLOSIVE VAPOURS ABOVE WATER SURFACE. Fish toxicity: L.idus LC50: 86 mg/l ; Crustaceans: Daphnia magna LC50: 165 mg/l ; aquatic organisms LC50: 10 mg/l /96 h

Chemical Fate :

TOLUENE CAS#108-88-3 Environmental Fate: From soil, substance evaporates and is microbially biodegraded. In water, substance volatilizes and biodegrades.

~~~~ SECTION 13 ~~~~ DISPOSAL CONSIDERATIONS ~~~~~

Instructions:

Dispose of contaminated product and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, state and local regulatory agencies to ascertain proper disposal procedures. Empty containers will retain product residue and vapors and are subject to proper waste disposal, as above.

~~~~ SECTION 14 ~~~~ TRANSPORT INFORMATION ~~~~~

Shipping Information:

DOT INFORMATION: 49 CFR 172.101

DOT DESCRIPTION: NON HAZARDOUS FOR GROUND TRANSPORT; FOR AIR, AND BY SHIP:PAINT RELATED MATERIAL,3,UN1263,PG III.

~~~~ SECTION 15 ~~~~ REGULATORY INFORMATION ~~~~~

(Not meant to be all inclusive-selected regulations represented)

US Regulations:

Status Of Substances Lists:

The Concentrations Shown In Section II Are Maximum Ceiling Levels (Weight %) to be used for calculations for regulations.

A reportable quantity is a quantity of a hazardous substance that triggers reporting requirements under the Comprehensive Environmental Response Compensation And Liability Act (CERCLA).

If a spill of a substance exceeds it's reportable quantity (RQ) in CFR 302.3,Table 40 302.4 Appendix A & 302.4 Appendix B, the release must be reported to The National Response Center At (800) 424-8802, The State Emergency Response Commission (SERC), And community emergency coordinators likely to be affected.

Components present that could require reporting under the statute are:

SEE SECTION II FOR PERCENTAGES

*TOXIC: NOT REPORTABLE IN QUANTITIES LESS THAN 1%

#CARCINOGEN: NOT REPORTABLE IN QUANTITIES LESS THAN .1%

TOLUENE CAS#108-88-3 RQ 1000#

XYLENE CAS # 1330-20-1 RQ 100#

ETHYL BENZENE CAS # 100-41-4 RQ 1000#

ANTIMONY OXIDE CAS#1309-64-4 RQ 5000#

Superfund Amendments And Reauthorization Act Of 1986 (SARA) Title III Requires emergency planning based on the Threshold Quantities(TPQ'S)and release reporting based on Reportable Quantities (RQ'S) In 40 CFR 355 Appendix A&B Extremely Hazardous Substances. The emergency planning and release requirements of 40 CFR 355 apply to any facility at which there is present any amount of any extremely hazardous substance(EHS) equal to or in excess of it's Threshold Planning Quantity(TPQ).

Components present that could require reporting under the statute are:

NONE KNOWN

EPCRA 40 CFR 372(Section 313) Requires EPA and the States to annually collect data on releases of certain toxic materials from industrial facilities, and make the data available to the public in the Toxics Release Inventory(TRI). This information must be included in all MSDS'S that are copied and distributed or compiled for this material. Reporting Threshold: Standard: A facility must report if it manufactures (including imports) or processes 25,000 pounds or more or otherwise uses 10,000 pounds or more of a listed toxic chemical during the calendar year. Components present that could require reporting under the statute are: See Section II

The components of this product are listed or excluded from listing on the US Toxic Substance Control Act (TSCA) chemical substance inventory. Mixtures shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture, except that the mixture shall be assumed to present a carcinogenic hazard if it has a component in concentrations of 0.1 percent or greater. The remaining percentage of unspecified ingredients, if any, are not contained in above DeMinimis concentrations and/or are believed to be non-hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200), and may consist of pigments, fillers, defoamers, wetting agents, resins, dryers, anti-bacterial agents, water and/or solvents in varying concentrations.

International Regulations:

Canadian WHMIS:

CLASS D - POISONOUS AND INFECTIOUS MATERIALS

SubDivision 2 Materials Causing Other Toxic Effects

Subdivision B - Toxic Materials

Canadian Environmental Protection Act (CEPA):

All of the components of this product are exempt or listed on the DSL/NDSL. See Section II For Composition/Information on Ingredients.

EINECS:

| | | |
|---|----------------|-------------------|
| ALUMINUM HYDROXIDE | CAS#21645-51-2 | EINECS#:244- |
| 492-7 TITANIUM DIOXIDE | CAS#13463-67-7 | EINECS#:236-675-5 |
| SILICA | CAS#14808-60-7 | EINECS#:231-545-4 |
| TOLUENE | CAS#108-88-3 | EINECS#:203-625-9 |
| XYLENE | CAS#1330-20-7 | EINECS#:215-535-7 |
| ETHYLBENZENE | CAS#100-41-4 | EINECS#:202-849-4 |
| 4,4'-methylenedicyclohexyl diisocyanate | CAS#5124-30-1 | EINECS#:225-863-2 |
| ETHYL 3-ETHOXYPROPIONATE | CAS#763-69-9 | EINECS#:212-112-9 |
| PTSI, TOSYL ISOCYANATE | CAS#4083-64-1 | EINECS#:223-810-8 |
| DIANTIMONY TRIOXIDE | CAS#1309-64-4 | EINECS#:215-175-0 |

State Regulations:

California:

California Proposition 65: The following Statement is made in order to comply with The California Safe Drinking Water and Toxic Enforcement Act of 1986

"WARNING:This product contains the chemical(s) appearing below known to the State of California to:

A: Cause Cancer

CRYSTALLINE SILICA(AIRBORNE PARTICLES OF RESPIRABLE SIZE),
CAS#14808-60-7

ANTIMONY OXIDE CAS#1309-64-4

IN ADDITION TO THE ABOVE NAMED CHEMICALS, IF ANY, THIS PRODUCT MAY CONTAIN TRACE AMOUNTS OF SOME CHEMICALS CONSIDERED BY THE STATE OF CALIFORNIA TO BE CARCINOGENS OR REPRODUCTIVE TOXICANTS

*If tinted contains Carbon Black: CAS#1333-86-4 and may also contain trace amounts of Crystalline Silica: CAS#14808-60-7

B: Cause Birth Defects or other Reproductive Harm :

Toluene CAS#108-88-3 this substance is listed as having developmental toxicity.

In addition to the above named chemical(s)(if any), this product may contain trace amounts of chemicals, known to the State of California, to cause Cancer or Birth Defects and other Reproductive Harm

Delaware:

Toluene CAS# 108-88-3 DRQ: 1,000.

Xylene CAS#1330-20-7 DRQ 100

Ethylbenzene CAS# 100-41-4 DRQ: 1,000.

Listed on the Delaware Air Quality Management List:

DICYCLOHEXYLMETHANE-4,4'-DIISOCYANATE CAS#5124-30-1 DRQ 100

Listed on the Delaware Air Quality Management List:

DECABROMODIPHENYLOXIDE CAS#1163-19-5 DRQ 100#

Listed on the Delaware Air Quality Management List:

ANTIMONY OXIDE CAS#1309-64-4 DRQ 1000#

Florida:

SILICA CAS# 14808-60-7 LISTED AS TOXIC

TOLUENE CAS#108-88-3 LISTED AS TOXIC

XYLENE CAS # 1330-20-1 LISTED AS TOXIC

ETHYLBENZENE CAS#100-41-4 LISTED AS TOXIC

LISTED AS TOXIC

DICYCLOHEXYLMETHANE-4,4'-DIISOCYANATE CAS#5124-30-1

Listed as Toxic:

Antimony Oxide CAS#1309-64-4

Idaho:

Toluene CAS# 108-88-3

Idaho Air Pollutant List:

Title 585--AAC: 18.75 Title 586--AAAC: --

Title 585--EL: 25 Title 586--EL: --

Title 585--OEL: 375 Title 586--OEF: --

Xylene (Mixed Isomers) CAS# 1330-20-7

Idaho Air Pollutant List:

Title 585--AAC: -- Title 586--AAAC: --

Title 585--EL: -- Title 586--EL: --

Title 585--OEL: -- Title 586--OEF: --

Ethyl Benzene CAS# 100-41-4

Idaho Air Pollutant List:

Title 585--AAC: 21.75 Title 586--AAAC: --

Title 585--EL: 29 Title 586--EL: --

Title 585--OEL: 435 Title 586--OEF: --

4,4-Methylenedicyclohexyl diisocyanate CAS#5124-30-1

Idaho Air Pollutant List:

Title 585--AAC: 0.0055 Title 586--AAAC: --

Title 585--EL: 0.007 Title 586--EL: --

Title 585--OEL: 0.11 Title 586--OEF: --

Massachusetts:

SILICA CAS#14808-60-7 SUBSTANCE
CODES:1,2,4,*E*C*F5

Toluene CAS#108-88-3 Substance Codes:2,4,5,6,F7,F8,F9

Xylene CAS #1330-20-7 Substance Codes:2,4,F8,F9

Ethylbenzene CAS#100-41-4 Substance Codes:2,4,5,6,F7,F8,F9

DICYCLOHEXYLMETHANE-4,4'-DIISOCYANATE CAS#5124-30-1
SUBSTANCE CODES:2,4,F8,F9

DECABROMODIPHENYLOXIDE CAS#1163-19-5 SUBSTANCE CODES:F9

ANTIMONY OXIDE CAS#1309-64-4 SUBSTANCE CODES:2,4,F8,F9

Michigan:

Toluene CAS#108-88-3 Report: -- Class: --

Michigan Critical Material:

Xylene (mixed isomers) CAS# 1330-20-7
Note: -- CMR#: 44 Parameter #: 01330-20-7 AUP: 100

Minnesota:

The following are listed in the Minnesota hazardous
substances list

| Chemical name | CAS# | Code | Rating | Status |
|---|---------------|------------|---------------|-------------|
| Silica | 14808-60-7 | -- | -- | Carcinogen |
| Toluene | CAS# 108-88-3 | Codes: ANO | Ratings: 8.64 | Status: Air |
| Pollutant Title III, TRI, Water Pollutant | | | | |

Xylene CAS#1330-20-7
Codes: ANO
Ratings: 8.77
Status: Air pollutant Title III, TRI

Ethylbenzene CAS# 100-41-4
Codes: A0
Ratings: 8.95
Status: Air Pollutant Title III, TRI, Water Pollutant.

DICYCLOHEXYLMETHANE-4,4'-DIISOCYANATE CAS#5124-30-1
LISTED IN THE MINNESOTA HAZARDOUS SUBSTANCES LIST:
CODES: A
HAZARDS: --
CARNINOGEN? NO

DECABROMODIPHENYLOXIDE CAS#1163-19-5

LISTED IN THE MINNESOTA HAZARDOUS SUBSTANCES LIST:

CODES: I
HAZARDS: --
CARNINOGEN? NO

ANTIMONY OXIDE CAS#1309-64-4

LISTED IN THE MINNESOTA HAZARDOUS SUBSTANCES LIST:

CODES: A
HAZARDS: --
CARNINOGEN? YES

New Jersey:

Toluene CAS#108-88-3 DOT#: 1294 Substance#: 1866, TPQ:--

Xylene CAS#1330-20-1

DOT#: 1307
Substance#: 2014
TPQ --
EHS:

Ethylbenzene CAS#100-41-4 DOT#: 1175, Substance#: 0851 TPQ: --

NEW JERSEY RTK HAZARDOUS SUBSTANCE

DECABROMODIPHENYLOXIDE CAS#1163-19-5
DOT# -- SUBSTANCE # 0598 TPQ <500lbs

New York:

Toluene CAS#108-88-3 RQ (air): 1000, RQ (land/water): 1

Xylene CAS# 1330-20-1

RQ air: 1000
RQ land/water: 1

Ethylbenzene CAS#100-41-4 RQ (air): 1000, RQ (land/water): 1

ANTIMONY OXIDE CAS#1309-64-4 RQ--AIR 1000, RQ--LAND 100

Pennsylvania:

SILICA CAS#14808-60-7 CODE:--
Toluene CAS#108-88-3 CODE:E

Xylene CAS#1330-20-1 CODE:E

Ethylbenzene CAS#100-41-4 CODE:E

DICYCLOHEXYLMETHANE-4,4'-DIISOCYANATE CAS#5124-30-1 CODE:--

DECABROMODIPHENYLOXIDE CAS#1163-19-5 CODE:E

ANTIMONY OXIDE CAS#1309-64-4 CODE:E

Washington:

SILICA CAS#14808-60-7
WASHINGTON AIR CONTAMINANT: ppm mg/Cubic Meter
TWA UNK 0.1

| | | |
|-----------------------------|-----|-------|
| STEL | UNK | UNK |
| CEILING | UNK | UNK |
| SKIN:UNK | | |
| Toluene CAS#108-88-3 | | |
| Washington air contaminant: | ppm | mg/m3 |
| TWA | 100 | 375 |
| STEL | 150 | 560 |
| Ceiling | --- | --- |
| Skin: -- | | |

| | | |
|-----------------------------|-----|-------|
| Xylene CAS# 1330-20-1 | | |
| Washington Air Contaminant: | ppm | mg/m3 |
| TWA | 100 | 435 |
| STEL | 150 | 655 |
| Ceiling | --- | --- |
| Skin: --- | | |

| | | |
|-----------------------------|-----|-------|
| Ethylbenzene CAS#100-41-4 | | |
| Washington air contaminant: | ppm | mg/m3 |
| TWA | 100 | 435 |
| STEL | 125 | 545 |
| Ceiling | --- | --- |
| Skin: --- | | |

| | | |
|---|-----|----------------|
| DICYCLOHEXYLMETHANE-4,4'-DIISOCYANATE CAS#5124-30-1 | | |
| WASHINGTON AIR CONTAMINANT: | ppm | mg/Cubic Meter |
| TWA | UNK | UNK |
| STEL | UNK | UNK |
| CEILING | .01 | .11 |
| SKIN:UNK | | |

Wisconsin:
NONE KNOWN
West Virginia
The following is on the West Virginia Toxic Air Pollutant List

| | |
|---------------|------------|
| Chemical name | CAS# |
| Silica | 14808-60-7 |

(Pounds per Year):

~~~~ SECTION 16 ~~~~ OTHER INFORMATION ~~~~

HMIS® III

|                 |      |
|-----------------|------|
| Health          | : 3* |
| Flammability    | : 3  |
| Physical Hazard | : 1  |

\*Following Health rating Indicates Chronic/Carcinogenic Effects  
HMIS® III Personal Protection : K  
This rating is for the product as it is packaged. This rating will need to be adjusted by the user based on conditions of use.

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them & determine the suitability & completeness of information from all sources to assure

*proper use & disposal of these materials & the safety & health of  
employees & customers*