PRODUCT NAME: ELASTUFF 300 PART A CLEAR
PRODUCT CODE: EL-300-A

~~~~ 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
TOLL FREE : BACKUP(800)541-4383
DATE PRINTED : 1/26/2007
DATE REVISED : January 2007

~~~~ SECTION 2 ~~~~ HAZARDOUS INGREDIENTS/SARA III INFORMATION ~~~~

Reportable Components	CAS Number	MM HG @ Temp	Weight %
Polyether diol	25322-69-4	<1 77F/25C	41

OSHA PEL: N/E, ACGIH TLV: N/E, STEL: N/E
AIHA WEEL: 10mg/m3, TWA as aerosol
~
* Diphenylmethane diisocyanate homopolymer101-68-81x10-5 77F/25C 31
Diphenylmethane diisocyanate (generic MDI) (CAS# 26447-40-5)
Contains <60% 4,4'-diphenylmethane diisocyanate (CAS#101-68-8)
ACGIH TLV TWA: 0.005ppm, OSHA PEL, ceiling: 0.02ppm.
~
*Polymeric Diphenylmethane diisocyanate(pMDI)25686-28-6<0.000177F/25C 23
Also contains:
4-4' Diphenylmethane diisocyanate (MDI) (CAS# 101-68-8) and
Diphenylmethane diisocyanate (MDI) Homopolymer (CAS# 25686-28-6)
Diphenylmethane Diisocyanate(MDI) Mixed Isomers (26447-40-5)
The following OEL's are for CAS# 101-68-8:
ACGIH TLV TWA: 0.005ppm, OSHA PEL, ceiling: 0.02ppm.
~
* 4-methyl-1,3-Dioxolan-2-one 108-32-7 1X10-3 77F/25C 5
Exposure limits unknown
~

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

When combined, the hazardous properties of both part A &
part B may be exhibited. This MSDS may be used for other colors and
container sizes of this product.

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

Potential Health Effects
Eyes:
May cause moderate irritation with corneal injury. Effects
may be slow to heal. Vapors will irritate eyes.

Skin:
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 dermititus. 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:
Irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion.

Inhalation:
Repeated or prolonged exposure to vapors or mists are irritating to the respiratory tract. Inhalation of vapors and mists of isocyante 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 hyperreactivity 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 eyes with clean, lukewarm water for 15 minutes while lifting eyelids. Consult a physician or ophthalmologist immediately.

Skin:
Remove contaminated clothing immediately. Wash affected areas with soap and water. After washing, cover affected skin with polyethylene glycol (300-500 mol wt) and wash again immediately with soap and water to thoroughly remove polyethylene glycol and residual isocyanate. Wash clothing before reuse. For severe exposures, get under safety shower and consult a physician immediately.

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: 199C/390F
Lower Flammable Limits: N/A
Upper Flammable Limit: N/A
Auto Ignition Temperature: Not available
Extinguishing Media:
Foam, CO2, dry chemical, water fog
Special Fire Fighting Procedures:
Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by fire fighters. During a fire isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Closed containers may explode when exposed to extreme heat or burst when contaminated with water due to the evolution of carbon dioxide gas.

~~~~ 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. 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. 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 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:
Wear skin, eye and respiratory protection during clean-up. Evacuate area of all non-essential personnel. Ventilate area as vapors may migrate to a source of ignition. (If mechanical equipment is to be used to expedite ventilation of the area, use only explosion proof equipment). Dike and contain and/or absorb spill with inert material (sand, earth or other suitable non-combustible material) and place in approved dot containers for proper disposal. Prepare a decontamination solution of 0.20%-0.50% liquid detergent and 3.0%-8.0% concentrated ammonium hydroxide in water. (5.0%-10.0% sodium carbonate may be substituted for the ammonium hydroxide). Use about 10 parts of the solution for each part of the isocyanate. Slowly stir the isocyanate waste into the decontamination solution. Loosely cover with lid. Let stand for 48 hours, allowing the evolved carbon dioxide to vent away before completely covering and tightening lid. Treat the spill area using about 10 parts of the decontamination solution for each part of the spill, and allow it to react for at least 10 minutes. Keep spills and cleaning run-offs out of sewers, storm drains and other unauthorized treatment/drainage systems and natural waterways. If spill occurs near air inlets or inside, turn off heating or air-conditioning equipment to prevent contaminating building.

Solidified spillage:

Where spills have solidified, sandblasting is the preferred removal method, particularly for road spills. Wear special protective clothing for sandblasting, along with self-contained breathing equipment. Contaminated sand must be collected for decontamination and disposal.

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

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:

Avoid prolonged or repeated breathing of vapor or spray mist. If used indoors, provide mechanical exhaust ventilation. Use only in a well ventilated area. Wash thoroughly with soap and water before eating or smoking. Keep out of the reach of children. Do not get in eyes, on skin or on clothing. Avoid prolonged or repeated breathing of vapor.

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.

~~~~ 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.

In confined spaces, mechanical exhaust ventilation, with volume and pattern capable of maintaining a fresh air supply or airline respirator, may be necessary. Refer to OSHA standard 29 CFR 1910.94 and/or ACGIH industrial ventilation for guidance about adequate ventilation. Turn off heating and/or air conditioning equipment to prevent contaminating building. When possible spray when building or structure is unoccupied.

Respiratory Protection:
Follow OSHA regulation 29 CFR 1910.134 for respirator use.
Use a respirator that respirator supplier has demonstrated to be effective for isocyanate vapors when concentrations exceed the recommended limits. (The hazardous properties of both part A and part B may be exhibited when combined. Air purifying, cartridge type, respirators are not approved for protection from isocyanates). Where over-spray is present, or if concentration of vapors is unknown, or high concentrations are present, fresh air-line respirators or self-contained breathing apparatus should be used.

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

Eye Protection:
CHEMICAL GOGGLES IN COMPLIANCE WITH REGULATIONS ARE ADVISED; HOWEVER, REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. CONSULT YOUR SAFETY REPRESENTATIVE.

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

Boiling Range: 150C@ 5mmHg
Melting Point:
Specific Gravity(H2O=1): 1.1274
Vapor Density(Air=1): Heavier than air
Vapor Pressure: .00001 mmHG @77F/25C.
Evaporation Rate(N-Butyl Acetate=1) : Faster than ether
Coating V.O.C.: 0.0 lb/gl Coating V.O.C.: 0 g/l

Material V.O.C.: 0.0 lb/gl Material V.O.C.: 0 g/l
Solubility in Water: Insoluble-reacts.
Appearance: Clear viscous liquid
Odor: Slight pungent
pH: N/A

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

Stability:
THIS PRODUCT IS STABLE UNDER SPECIFIED CONDITIONS OF STORAGE, SHIPMENT AND/OR USE. SEE HAZARDOUS POLYMERIZATION FOR CONDITIONS TO AVOID.

Conditions To Avoid:
Avoid 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 sulfur 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:
NO DATA
Materials having a known dermal toxicity.
NO DATA.
Materials having a known oral toxicity.
Rat, oral LD50-10,000 mg/kg.
Materials having a known Inhalation hazard:
Data is for 4,4-methylenedicyclohexyl diisocyanate: Rat, 4hr inhalation LC50-369 mg/m3 Toxic by inhalation of aerosols. May cause sensitization by inhalation.

Identified Acute/ Short-term Effects:
Eye contact may result in conjunctival irritation and mild corneal opacity. Skin contact may result in dermatitis, either irritative or allergic.
Inhalation of MDI vapors may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Airborne overexposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed. Gastrointestinal symptoms include nausea, vomiting and abdominal pain.

Identified Carcinogens/Longterm Effects:
Results from a lifetime inhalation study in rats indicate that MDI aerosol was carcinogenic at 6mg/m3, the highest dose tested. This is well above the recommended TLV of 5ppb (0.05 mg/m3). Only irritation was noted at the lower concentration of 0.2 and 1 mg/m3. As a result of previous repeated over exposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the PEL/TLV. These symptoms, which include chest tightness, wheezing, cough, shortness of breath, or asthmatic attack, could be immediate or delayed up to several hours after exposure. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Chronic overexposure to isocyanates has also been reported to cause lung damage, including a decrease in lung function, which may be permanent. Sensitization may be either temporary or permanent. 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.

Identified Teratogens:
This material (or a component) has been shown to cause birth defects in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Identified Reproductive toxins :
NO DATA.
Identified Mutagens:
No animal data available.

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

Ecotoxicological effects on plants and animals:
Results for Diphenylmethane Diisocyante (monomeric & polymeric)
DAPHNIA MAGNA, 24 HR LC50: >500 MG/L.
ZEBRA FISH, STATIC 24 HR LC50: >500 MG/L.

Chemical Fate :
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.
Local exhaust ventilation recommended if generating vapor, dust or mist. Turn off heating and/or air conditioning equipment to prevent contaminating building.
If exhaust ventilation is not adequate, use MSHA or NIOSH approved respirator. Refer to OSHA standard 29 CFR 1910.94 for guidelines.

~~~~ 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:
Department of transportation classification:
This product is non hazardous in quantities of less than 5000 lbs.

~~~~ 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%
DIPHENYLMETHANE-4,4-DIISOCYANATE CAS #101-68-8 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:
COMPONENTS PRESENT IN THIS PRODUCT AT A LEVEL THAT COULD REQUIRE REPORTING UNDER THE STATUTE ARE:
DIPHENYLMETHANE-4,4-DIISOCYANATE CAS #101-68-8 RQ 5000#.

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:
CAS No: 101-68-8
EINECS No: 202-966-0

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
WARNING! THIS PRODUCT MAY CONTAIN CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

*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 :
NONE KNOWN
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:
Listed on the Delaware Air Quality Management List:
METHYLENEBIS(PHENYLISOCYANATE) CAS#101-68-8 DRQ 5000#

Florida:
DIPHYLMETHANE DIISOCYANATE HOMOPOLYMER CAS# 101-68-8
LISTED AS TOXIC

Massachusetts:
DIPHYLMETHANE DIISOCYANATE HOMOPOLYMER CAS#101-68-8
SUBSTANCE CODES:2,4,F8,F9

Michigan:

NONE KNOWN
Minnesota:
DIPHYLMETHANE DIISOCYANATE HOMOPOLYMER CAS#101-68-8
LISTED IN THE MINNESOTA HAZARDOUS SUBSTANCES LIST:
CODES: A
HAZARDS: --
CARNINOGEN? NO

New Jersey:
NEW JERSEY RTK HAZARDOUS SUBSTANCE
Methylenebis(phenylisocyanate)4 CAS# 101-68-8

New York:
DIPHYLMETHANE DIISOCYANATE HOMOPOLYMER CAS#101-68-8
RQ--AIR 1, RQ--LAND 1

Pennsylvania:
DIPHYLMETHANE DIISOCYANATE HOMOPOLYMER CAS#101-68-8
CODE:E

Washington:
DIPHYLMETHANE DIISOCYANATE HOMOPOLYMER CAS#101-68-8

WASHINGTON AIR CONTAMINANT:	ppm	mg/Cubic Meter
TWA	UNK	5
STEL	UNK	UNK
CEILING	.02	.2

SKIN:UNK

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

HMIS® III

Health	: 3
Flammability	: 1
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
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