

MATERIAL SAFETY DATA SHEET

Product Name: EX-2C LOW VOC COMPONENT B

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer/Supplier:..... Endura Manufacturing Co. Ltd.
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Product Name:..... EX-2C LOW VOC COMPONENT B

Item Number:..... UN 1263 CI 3 PG II

Chemical Family:..... Ester, Ketone, HDI

Material Use:..... 2 component plastic coating – mix 1 part Component "A" and 1 part Component "B" by volume

SECTION 02: COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	C.A.S.	LD/50, ROUTE, SPECIES	LC/50, ROUTE, SPECIES	TLV	% WT
ethyl 3-ethoxypropionate	763-69-9	5 g/kg o-r 10 ml/kg d-rbt	>1000 ppm/6h i-r	N/A	10-30
acetone	67-64-1	>9.7 g/kg o-r >20 ml/kg d-rbt	>16000 ppm/4h i-r	500 ppm	30-50
hexamethylene diisocyanate	822-06-0	710 mg/kg o-r 570 mg/kg d-rbt	310-350 mg/m ³ /1-4 h i-r	.005 ppm	**
homopolymer of HDI	28182-81-2	>10 g/kg o-r		N/A	30-50

** Free HDI monomer <0.15% of mixed solution (comp. A & comp. B) at time of manufacture. The monomer content may rise to 0.35% after 3-6 months storage.

legend: o=oral d=dermal i=inhalation rbt=rabbit r=rat fr=female rat g=guinea pig

See Sax, N.I. "Dangerous Properties of Industrial Materials" for more information.

SECTION 03: HAZARDS IDENTIFICATION

Eye Contact:..... Moderately irritating to eyes and can cause tissue damage.

Skin Contact:..... Low toxicity by skin absorption, but extended contact can cause irritation and dermatitis. Skin sensitization or reddening, swelling or blistering can occur.

Inhalation:..... Vapors are of low to moderate toxicity when inhaled and are irritating to nose, throat and other respiratory passages, especially in higher concentrations. Extended exposure can cause headaches, dizziness, nausea or even loss of muscular control and coordination, narcosis or unconsciousness. In addition to causing lung irritation, coughing, breathlessness and chest discomfort, isocyanates can cause a reduction in lung function or even bronchitis, bronchial spasm or pulmonary edema in extreme concentrations. Any of these effects can be immediate or delayed. Any pre-existing impairment in lung function will be magnified or sensitization of the lungs can occur, and those in either condition should not be exposed to any level of isocyanate vapor.

Ingestion:..... Liquid is of low to moderate toxicity when ingested, but can be hazardous if aspirated into lungs during swallowing or vomiting.

Additional Information:..... Chronic hazards include narcosis, specific organ damage, permanent brain and nervous system damage or coma if extensively abused. Component B (and therefore the mixture) contains an isocyanate compound, which carries additional hazards. The vapor's odor is not detectable until dangerous levels have already been reached.

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SECTION 04: FIRST AID MEASURES

Inhalation (acute):..... Remove to fresh air and if necessary restore breathing by giving artificial respiration. Administer oxygen if victim is breathing with difficulty. GET IMMEDIATE MEDICAL HELP.
DO NOT INDUCE VOMITING. Seek medical help. Give 1 or 2 glasses water or milk, BUT ONLY IF VICTIM IS CONSCIOUS.

Ingestion:..... Check for and remove any contact lenses. Flush eyes IMMEDIATELY with water for 15 minutes and get immediate medical help.

Eye Contact:..... Wash with soap and water. Clean contaminated clothing before reuse.

Skin Contact:..... Treatment is symptomatic. There is no specific antidote. See list of ingredients.

Notes to Physician:.....

SECTION 05: FIRE FIGHTING MEASURES

Flash Point (°C) (TCC):..... -18

Auto Ignition Temperature (°C):..... N/A

Upper Explosive Limit (% Vol):..... N/A

Lower Explosive Limit (% Vol):..... N/A

Extinguishing Media:..... CO₂, dry chemical, foam. Avoid using water except as a fog.

Hazardous Combustion Products:..... CO, CO₂. Oxides of Nitrogen. Hydrogen Cyanide. HDI

Sensitivity To Mechanical Impact:..... None

Sensitivity To Static Discharge:..... Can ignite vapors

Special Fire Fighting Procedures:..... Wear self-contained breathing apparatus and full protective clothing. Extreme heat may cause pressure build-up in containers and possibly explosion, therefore use water to keep containers cool.

Conditions of Flammability:..... Sparks, open flame, static discharge or extreme temperature.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Leak / Spill:..... Remove all sources of ignition. The product should be contained and absorbed with inert materials and placed into a container. Do not seal the containers until any gas, which might form, has done so.

SECTION 07: HANDLING AND STORAGE

Handling Procedures:..... Avoid static charges, sparks, flames and excessive heat. Keep containers tightly closed and upright when not in use. Do not allow contact with skin or eyes, and don't breathe vapors.

Storage Needs:..... Store in a cool, dry place.

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**PROTECTIVE EQUIPMENT**

Eye/Type:..... Personnel should wear liquid chemical goggles or a full-face shield.

Respiratory/Type:..... Personnel should wear a suitable air supplied respirator.

Gloves/Clothing/Footwear/Type:..... Personnel should wear chemical-resistant clothing, gloves and footwear.

Other/Type:..... A safety shower and eye wash facility should be available.

Ventilation Requirements:..... Adequate ventilation must be assured to prevent the accumulation of dangerous amounts of vapor or mist.

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SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Physical State (appearance):..... Clear, slightly yellow liquid
Odor:..... Solvent like
Density (g/ml):..... 0.922
VOC:..... 139 g/l 1.15 lbs/gal
Odor Threshold (ppm):..... N/A
Vapor Pressure (20°C):..... 180 mm Hg
Vapor Density (Air=1):..... Heavier than air
Evaporation Rate:..... 5.7
Boiling Point (°C):..... 57
pH:..... N/A
Solubility in Water (% W/W):..... N/A
Coefficient of Water/Oil Distribution:..... N/A
Freezing Point (°C):..... N/A

SECTION 10: STABILITY AND REACTIVITY

Incompatibility:.....
Reactivity Conditions:..... Reacts with water, alcohols, amines, and strong bases to give a variety of products, some gaseous. Both components and their mixture will react dangerously with oxidizing materials. If component B or the mixture comes into contact with any of the above materials, a potentially explosive mixture can form. Therefore, contaminated solutions must never be resealed in the can.
Hazardous Products of Decomposition:.....

SECTION 11: REGULATORY INFORMATION

WHMIS:..... B2, D2A

SECTION 12: DISPOSAL CONSIDERATIONS

Waste Disposal:..... Dispose of waste according to local, provincial and federal regulations. Utilize authorized centers for disposal of combustible chemical material.

SECTION 13: TRANSPORT INFORMATION

T.D.G. Classification:..... Shipping name: Paint. UN 1263, Cl 3, PG II.

SECTION 14: OTHER INFORMATION

Note:.....
Prepared By:..... Information Systems
Revision Date:..... August 14, 2009