MSDS *Material Safety Data Sheet*

1.4.2010

7 Pages

MSDS Number AD-989

1.0 Product and Company Identification

Manufacturer:
OTS Manufacturing and Supply
293 Industrial Drive
Lexington, SC 29072

Contact: Ron Wilson
Telephone: (803) 957-3549
Fax: (803) 356-9713
Email: Ron@otscompany.com

Emergency Contact: INFOTRAC 800-535-5053

Product Name: BTR Rubber Flooring Adhesive
Revision Date: 9/24/09
MSDS Number: AD-989
Chemical Family: Adhesive-urethane polymer

Composition/Information on Ingredients

Ingredients**:**

Cas #	Chemical Name	Perc.
68083-75-0	Urethane Polymer	60-70 %
1305-78-8	Calcium Oxide	15-25%
64742-46-7	Petroleum distillates, hydrotreated middle	10-20%
101-68-8	Methylene bisphenol isocyanate	10-20%
6422-86-2	1,4-Benzenedicarboxylic acid,bis(2-ethylhexyl) ester	4-6%

OSHA Regulatory Status: Xn Harmful
This MSDS Contains valuable information critical to the safe handling and proper use of this product. This MSDS should be retained and available for employees and other users of this product.

Hazards Identification

Route of Entry: Inhalation, eye and skin contact.
Target of Organs: Eyes; Respiratory System; Skin:
Inhalation: ACUTE EXPOSURE: MDI vapor or mist at concentrations above the TLV can irritate (burning sensation) 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 (breathing obstruction). Individuals with a pre-existing, non-specific bronchial hyper-reactivity can respond to the concentrations below the TLV with similar symptoms as well as

asthma attack. Exposure well above the TLV may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). These effects are usually reversible. Chemical or hypersensitive pneumonitis, with flu-like symptoms (e.g., fever, chills) has also been reported. These symptoms can be delayed up to several hours after exposure.
CHRONIC EXPOSURE: As a result of previous repeated overexposures or a single large dose, certain individuals develop isocyanate sensitization (chemical asthma) which will cause them to react to a later isocyanate exposure at levels well below the TLV. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthma 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. Overexposure to isocyanates has also been reported to cause lung damage (including decrease in lung function) which may be permanent. Sensitatization can either be temporary or permanent.

Skin Contact:

Acute Exposure: Isocyanates react with skin protein and moisture and can cause irritation which may include the following symptoms: reddening, swelling, rash, scaling or blistering. Cured material is difficult to remove.
Chronic Exposure: Prolonged contact can cause reddening, swelling, rash, scaling blistering, and is come cases, skin sensitization. Individuals who have developed a skin sensitization can develop these symptoms as a result of contact with very small amounts of liquid material or as a result of exposure to vapor.

Eye Contact:

ACUTE EXPOSURE: Liquids, aerosols or vapors are irritating and can cause tearing, reddening, and swelling. If left untreated, corneal damage can occur and injury is slow to heal. However, damage is usually reversible.
CHRONIC EXPOSURE: None Found

Ingestion:

ACUTE EXPOSURE: Can result in irritation and corrosive action in the mouth, stomach tissue and digestive tract. Symptoms can include sore throat, abdominal pain, nausea, vomiting and diarrhea.
CHRONIC EPXOSURE: None found

2.0 First Aid Measures

Inhalation:

Move to an area free from risk of further exposure. Administer oxygen or artificial respiration as needed. Obtain medical attention. Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours. Consult your physician should this occur.

Skin Contact:

Remove contaminated clothing. Wash affected skin thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse. For severe exposures get under safety shower after removing clothing, then get medical attention. For lesser exposure, seek medical attention if irritation develops or persist after the area is washed.

Eye Contact:

Flush with copious amounts of lukewarm water for at least 15 minutes, holding eyelids open at all times. Refer individual to physician or ophthalmologist for immediate follow-up.

Ingestion:

DO NOT INDUCE VOMITING. Give 1 to 2 cups of milk or water to drink. DO NOT GIVE ANTYHING BY MOUTH TO AN UNCONSCIOUS PERSON. Get prompt, qualified medical attention.

3.0 Fire Fighting Measures

Flash Point:	250"F (Tagliabue closed cup) ASTM
Flash Point Method:	DIN 51758

Dry chemical (e.g. monoammonium phosphate, potassium sulfate, and potassium chloride), carbon dioxide, high expansion (proteinic) chemical foam, water spray for large fires. Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by fire fighters. During a fire, vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. At temperatures greater than 400 DEG F (204 DEG C), this product can be polymerized and decompose which can cause pressure build-up in closed containers. Explosive rupture is possible. Therefore, use cold water to cool fire-exposed containers.

4.0 Accidental Release Measures

Cover the spill with sawdust, dry sand, earth, vermiculite, Fuller's earth or other absorbent material. . Collect material in open containers. Remove containers to safe place, cover loosely and allow to stand for 24 to 48 hours.

5.00 Handling and Storage

Handling Precautions: Avoid breathing vapors or mist; Avoid contact with eyes, skin or clothing: Do not expose containers to open flame, excessive heat, or direct sunlight.

Storage Requirements: Storage temperature: Minimum 40 DEG F (5DEG C) / Maximum 150 DEG (66 DEG C). Store in tightly closed containers to prevent moisture contamination. This product reacts slowly with water to from CO2 gas. This gas can cause sealed containers to expand and possibly rupture. Do not reseal if contamination is suspected.
Store in cool/dry area.

6.0 Exposure Controls/Personal Protection

Engineering Controls: Educate and train employees in safe use of this product. Follow all label instructions. Local exhaust should be used to maintain levels below the TLV whenever this product is processed, heated or spray applied. For spray applications, an air-supplied respirator must be worn. All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94).

Protective Equipment: An air-supplied respirator must be worn during spray applications, during long-term (over 1 hour) exposures when the product is heated or in environments of high concentrations near the TLV, an air-purifying respirator equipped with organic cartridges or canisters and dust filters can be used. However, due to the poor warning properties of this product, proper fit and timely replacement of filter elements must be ensured. Observe OSHA regulations for respirator use (29CFR 1910.134).
Chemical resistant gloves (butyl rubber, nitrile rubber). Cover as much of the exposed area as possible with appropriate clothing. If skin creams are used, keep the area covered only by the cream to a minimum.
Liquid chemical goggles or full-face shield. Contact lenses should not be worn.
ADDITIONAL PROTECTIVE MEASURES: Clean, fresh running water should be available.

Exposure Guidelines: **Exposure Limits**:

USA OSHA (TWA5/PEL):	0.02 ppm
NIOSH (TWA):	0.005ppm
IDLH:	75mg/m3
NIOSH (C 10 min):	0.02 ppm

7.0 Physical and Chemical Properties

Appearance: Clear Liquid
Physical State: Liquid
Odor: Mild Oil
pH: N.A.

Boiling Point: 342-514" F
Freezing/Melting Pt: Not established
Solubility: Reacts slowly with water to liberate CO2 gas.

Vapor Pressure: N/D. PH @0.0% :N/D

Spec Grav./Density: 1.2600

Vapor Density: Is heavier than air

Viscosity: N/D Coefficient of Water/Oil Distribution: N/D

VOC: 0.97 lbs/gal, 116 grams/ltr

Bulk Density: 9.0 lbs/gal

8.0 Stability and Reactivity

Stability: Product is stable under normal conditions.

Conditions to avoid: Temperatures over 400 DEG F (204 DEG C).

Materials to avoid (incompatibility): Water, amines, strong bases, alcohols.

Hazardous Decomposition products: By Fire and High heat; hydrogen cyanide; Carbon dioxide (CO2) Carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke, Isocyanate, Isocyanic Acid, Other undetermined compounds.

Hazardous Polymerization: May occur if in contact with moisture or other materials which react with isocyanates. May occur at temperatures over 400 DEG F (204 DEG C)

9.0 Toxicological Information

Acute Eye Effects: Liquid, aerosols or vapors are irritating and can cause tearing, reddening and swelling. If left untreated, cornea damage can occur and injury is slow to heal. However, damage is usually reversible. (See Section VI for treatment).

Acute Skin Effects: Isocyanates react with skin protein and moisture and can cause irruption which may include the following symptoms: reddening, swelling, rash, scaling or blistering. Cured material is difficult to remove.

Acute Inhalation Effects: Vapors or mist at concentrations above the TLV can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat and lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). Individuals with a pre-existing, non-specific bronchial hyper reactivity can respond to concentrations below the TLV with similar symptoms as well as asthma attack. Exposure well above the TLV 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. These symptoms can be delayed up to several hours after exposure.

Acute Ingestion Effects: Can result in irritation and corrosive action in the mouth, stomach tissue and digestive tract. Symptoms can include sore throat, abdominal pain, nausea, vomiting and diarrhea.

Chronic Eye Effects: None found

Chronic Skin Effects: Prolonged contact can cause reddening, swelling, rash, scaling, blistering, and in some cases, skin sensitization. Individuals who have developed a skin sensitization can develop these symptoms as a result of contact with very small amounts of liquid material or as a result of exposure to vapor.

Chronic Inhalation Effects: As a result of previous repeated overexposures or a single large dose, certain individuals develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. These symptoms which can include chest tightness, wheezing, coughing, shortness of breath or asthma 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. Overexposure to isocycantes has also been reported to cause lung damage (including decrease in lung function) which may be permanent. Sensitization can either be temporary or permanent.

Product Dermal LD50:
No information

Product Oral LD50:
No information

Product LC50:
No information

Component Toxicological Information:
Methylene bisphenyl dii Dermal LD50: 500 mg/kg/24
Oral LD50: 30,000 mg/kg
LC50: 178 mg/m3:
Talc Dermal LD50: No information
Oral LD50: No information
LC50: No information;
Silica, quartz Dermal LD50: No information
Oral LD50: No information
Hydrotreated light pert Dermal LD50: >3.16 g/lg
Oral LD50: .5g/kg
LC50: No information
Polymethylenepolyphenyl Dermal LD50: > 9400 mg/kg
Oral LD50: >10 gm/kg
LC50: No information

10.0 Disposal Considerations

Waste and container disposal must be in accordance with federal, state, and local environmental control regulations. Incineration is the preferred method. Empty containers must be handled with care due to product residue. Decontaminate prior to disposal. DO NOT HEAT OR CUT EMPTY CONTAINERS WITH ELECTRIC OR GAS TORCH.

11.0 Transport Information

DOT (HM-181; DOMESTIC SURFACE)

UN/NA NUMBER:	none
D.O.T. SHIPPING NAME:	Aromatic Isocyanate Prepolymer
D.O.T. HAZARD CLASS:	NON REGULATED
PACKAGING GROUP:	none
D.O.T. LABEL	none
D.O.T. PLACARD	none

ICAO/IATA (AIR)

UN NUMBER:	none
PROPER SHIPPING NAME:	Aromatic Isocyanate Prepolymer
HAZARD CLASS DIVISION NUMBER:	NON REGULATED
SUBSIDIARY RISK:	none
PACKING GROUP:	none
HAZARD LABEL(S):	none
RADIOACTIVE?:	Non-radioactive
PASSENGER AIR-MAXIMUM QUANTITY:	none

PACKING INSTRUCTION NUMBER:	none
CARGO AIR - MAXIMUM QUANTITY:	none
PACKING INSTRUCTION NUMBER:	none

MSDS Number AD-989

IMO/IMDG CODE (OCEAN)

UN NUMBER:	none
PROPER SHIPPING NAME:	Aromatic Isocyanate Prepolymer
HAZARD CLASS DIVISION NUMBER:	NON REGULATED
PACKING GROUP:	none
HAZARD LABEL(S):	none
HAZARD PLACARD (S):	none

12.0 Regulatory Information

COMPONENT / (CAS/PERC) / CODES

Methylene bisphenyl diisocyanate (101-68-8 –CAS# WT/WT % Less Than 5%) CERCLA, HAP, MASS, NJHS, OSHAWAC, PA,
SARA 313, TXAIR

Polymethylenepolyhenylisocyanate (9016-87-9 Cas# WT/WT % Less Than 5%)

TSCA: All components in this mixture are included in the TSCA Inventory.

REGULATORY KEY DESCRIPTIONS

CERCLA = Superfund clean up substance
HAP = Hazard Air Pollutants
MASS = MA Massachusetts Hazardous Substances List
NJHS = NJ Right - to - Know Hazardous Substances
MSDS Number AD-987

OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To - Know List of Hazardous Substances
SARA313 = Sara 313 Title III Toxic Chemicals
TXAIR = TX Air Contaminants with Health Effects Screening Level

13.0 Other Information

OTS Company believes the information herein to be true, accurate and reliable and is given in good faith. The company cannot, however be held responsible for any errors or omissions and will not accept responsibility for any use which may be made of the information. Properties shown are typical and do not imply a specification. This information is based on practical experience and laboratory testing, successful use depends on the conditions applicable at the time and the equipment used. Users must ensure by their own testing that the products perform adequately in each situation. Since conditions and disposal are beyond our control, OTS Company, Inc. disclaims any liability incurred in connection with the use of our products; no warranty, express or implied, is given nor is any freedom from any patent or use of trademark owned by OTS or others implied.

OTS Manufacturing and Supply, Inc.
293 Industrial Drive
Lexington, SC 29072

Telephone: (803) 957-3549