RT100101 A-COMPONENT

1. Product And Company Identification

Supplier
HENRY COMPANY
909 N. Sepulvida Blvd., Suite 650
El Segundo, CA 90245-2724

Company Contact: Technical Services
Telephone Number: 800-486-1278
Web Site: www.henry.com www.bakor.com

Manufacturer
HENRY COMPANY
909 N. Sepulvida Blvd., Suite 650
El Segundo, CA 90245-2724

Company Contact: Technical Services
Telephone Number: 800-486-1278
Web Site: www.henry.com www.bakor.com

Supplier Emergency Contacts & Phone Number
CHEMTREC: 800-424-9300
CHEMTREC: 703-527-3887
CANUTEC: 613-996-6666

Manufacturer Emergency Contacts & Phone Number
CHEMTREC: 800-424-9300
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CANUTEC: 613-996-6666

Issue Date: 10/01/2010

Product Name: RT100101 A-COMPONENT (TAP X-30 Polyurethane Foam SIDE A)

2. Composition/Information On Ingredients

Ingredient Name	CAS Number		Percent Of Total Weight
diphenylmethane diisocyanate (MDI) Mixed Isomers	26447-40-5		1 - 5
4,4'-diphenylmethane diisocyanate	101-68-8		35 - 45
polymeric diphenylmethane diisocyanate (pMDI)	9016-87-9		50 - 60

EMERGENCY OVERVIEW

WARNING: Toxic gases/fumes may be given off during burning or thermal decomposition. Closed container may forcibly rupture under extreme heat or when contents have been contaminated with water. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. Causes respiratory tract irritation. May cause allergic respiratory reaction. Harmful if inhaled. Respiratory sensitizer. Lung damage and respiratory sensitization may be permanent. Causes skin irritation. May cause allergic skin reaction. Skin sensitizer. Animal tests indicate that skin contact alone may lead to allergic respiratory reaction. Causes eye irritation. May cause lung damage.

Appearance/Odor: Brown liquid, musty odor

3. Hazards Identification

Primary Routes(s) Of Entry

Skin Contact, Inhalation, Eye Contact

Eye Hazards

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause temporary corneal injury. Vapor or aerosol may cause irritation with symptoms of burning and tearing. Prolonged contact may cause conjuntivitis.

Skin Hazards

Causes irritation with symptoms of reddening, itching, and swelling. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove. Contact with MDI can cause discoloration.

Prolonged contact can cause reddening, swelling, rash, and, in some cases, skin sensitization. Animal tests and

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3. Hazards Identification - Continued

Skin Hazards - Continued

other research indicate that skin contact with MDI can play a role in causing isocyanate sensitization and respiratory reaction.

Ingestion Hazards

May cause irritation of the mouth, throat, and digestive tract. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea.

Inhalation Hazards

Diisocyanate vapors or mist at concentrations above the TL V or PEL 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). Persons with a preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the TL V or PEL with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the TLV or PEL may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms (e.g., fever, chills), has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible.

As a result of previous repeated overexposures or a single large dose, certain individuals may develop sensitization to diisocyanates (asthma or asthma-like symptoms) that may cause them to react to a later exposure to diisocyanates at levels well below the TL V or PEL. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be immediate or delayed up to several hours after exposure. Extreme asthmatic reactions can be life threatening. Similar to many nonspecific 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. Sensitization can be permanent. Chronic overexposure to diisocyanates has also been reported to cause lung damage (including fibrosis, decrease in lung function) that may be permanent.

Chronic/Carcinogenicity Effects

None of the ingredients of this product comprising over 0.1% are classified as carcinogenic according to OSHA, National Toxicology Program (NTP), International Agency for Research on Cancer (IARC) or the American Conference of Governmental Industrial Hygienists (ACGIH).

4. First Aid Measures

Eye

In case of contact, hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin

Remove contaminated clothing and shoes. Wash clothing before reuse. Wash affected areas with soap and water. For severe exposures, immediately get under safety shower and begin rinsing. Get medical attention immediately if irritation (redness, rash, blistering) develops and persists.

Ingestion

DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious victim. Have victim rinse mouth thoroughly with water. If victim is fully conscious, give 1-2 cups of water to dilute material in stomach. Get medical attention immediately.

Inhalation

Remove the person from the contaminated area to fresh air. If breathing is difficult, give oxygen. Do not allow victim to move about unnecessarily. Symptoms of pulmonary edema or asthmatic symptoms may develop and may be immediate or delayed up to several hours. Get medical attention immediately.

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4. First Aid Measures - Continued

Note To Physician

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

Skin: This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal bum.

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 further exposure to any diisocyanate.

5. Fire Fighting Measures

Flash Point: 390 °F 199 °C
Flash Point Method: PMCC (ASTM D-93)
Lower Explosive Limit: not available
Upper Explosive Limit: not available

Fire And Explosion Hazards

Special Remarks on Explosion Hazards

Due to reaction with water producing CO2-gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Containers may burst if over heated.

Extinguishing Media

Use an extinguishing media suitable for surrounding fire.

Fire Fighting Instructions

Fire-fighters should wear NFPA compliant structural fire-fighting protective equipment, including self-contained breathing apparatus and helmet, hood, boots, and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. If material is spilled or released and exposure likely, evacuate area and fight fire from a safe distance or a protected location.

6. Accidental Release Measures

Evacuate non-emergency personnel. Isolate the area and prevent access. Remove ignition sources. Notify management. Put on protective equipment. Control source of the leak. Ventilate. Contain the spill to prevent spread into drains, sewers, water supplies, or soil. Major Spill or Leak (Standing liquid): Released material may be pumped into closed, but not sealed, metal container for disposal. Process can generate heat. Minor Spill or Leak (Wet surface): Cover spill area with suitable absorbent material (Kitty Litter, Oil-Dri®, etc). Saturate absorbent material with neutralization solution and mix. Wait 15 minutes. Collect material in open-head metal containers. Repeat applications of decontamination solution, with scrubbing, followed by absorbent until the surface is decontaminated. Check for residual surface contamination. Swype® test kits have been used for this purpose. Apply lid loosely and allow containers to vent for 72 hours to let carbon dioxide (C02) escape.

Notify applicable governmental authorities if release is reportable. The CERCLA RQ for MDI is 5000 pounds.

Additional Spill Procedures/Neutralization:

Neutralization solutions:
(1) Colorimetric Laboratories Inc. (CLI) decontamination solution.
(2) A mixture of75% water, 20% non-ionic surfactant (e.g. Poly-Tergent SL-62, Tergitol TMN-lO) and 5% n-propanol.
(3) A mixture of 80% water, 20% non-ionic surfactant (e.g. Poly-Tergent SL-62, Tergitol TMN-I0).
(4) A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.

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7. Handling And Storage

Handling And Storage Precautions

Do not breathe vapors, mists, or dusts. Use adequate ventilation to keep airborne isocyanate levels below the exposure limits. Wear respiratory protection if material is heated, sprayed, used in a confined space, or if the exposure limit is exceeded. Warning properties (irritation ofthe eyes, nose and throat or odor) are not adequate to prevent overexposure from inhalation. This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to vapor or spray mist. A void contact with skin and eyes. Wear appropriate eye and skin protection. Wash thoroughly after handling. Do not breathe smoke and gases created by overheating or burning this material. Decomposition products can be highly toxic and irritating. Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected.

8. Exposure Controls/Personal Protection

Engineering Controls

Use with adequate ventilation. When used outdoors, stay well away from building air intakes or close the intakes to prevent product from entering building.

Eye/Face Protection

Safety glasses with side shields or goggles recommended. If there is a potential for splashing, use full face shield over safety glasses or goggles.

Skin Protection

Avoid all skin contact Use with chemical-protective gloves and clothing to prevent excessive skin contact. Chemical-resistant gloves made of nitrile, neoprene or butyl rubber can be used. Animal tests and other research indicate that skin contact with MDI can play a role in causing isocyanate sensitization and respiratory reaction.

Respiratory Protection

Airborne MDI concentrations greater than the ACGIH TL V -TWA (TL V) or OSHA PEL-C (PEL) can occur in inadequately ventilated environments when MDI is sprayed, aerosolized, or heated. In such cases, respiratory protection must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). The type of respiratory protection available includes (1) an atmosphere-supplying respirator such as a self-contained breathing apparatus (SCBA) or a supplied air respirator (SAR) in the positive pressure or continuous flow mode, or (2) an air-purifying respirator (APR). If an APR is selected then (a) the cartridge must be equipped with an end-of-service life indicator (ESLI) certified by NIOSH, or(b) a change out schedule, based on objective information or data that will ensure that the cartridges are changed out before the end of their service life, must be developed and implemented. The basis for the change out schedule must be described in the written respirator program. Further, if an APR is selected, the airborne diisocyanate concentration must be no greater than 10 times the TL V or PEL. The recommended APR cartridge is an organic vapor/particulate filter combination cartridge (OVIPI00).

Occupational Exposure Limits for individual ingredients (if available) are listed below.

Other/General Protection

All applicants who are assigned to an isocyanate work area should undergo a pre-placement medical evaluation. A history of eczema or respiratory allergies such as hay fever, are possible reasons for medical exclusion from isocyanate areas. Applicants who have a history of adult asthma should be restricted from work with isocyanates. Applicants with a history of prior isocyanate sensitization should be excluded from further work with isocyanates. A comprehensive annual medical surveillance program should be instituted for all employees who are potentially exposed to diisocyanates. Once a worker has been diagnosed as sensitized to any isocyanate, no further exposure can be permitted.

Ingredient(s) - Exposure Limits

4,4'-diphenylmethane diisocyanate

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8. Exposure Controls/Personal Protection - Continued

Ingredient(s) - Exposure Limits - Continued

ACGIH TLV-TWA 0.005 ppm
OSHA PEL-CEILING 0.02 ppm

9. Physical And Chemical Properties

Appearance

Brown liquid

Odor

Slightly musty

Chemical Type: Mixture
Physical State: Liquid
Melting Point: < 32 °F < 0 °C
Boiling Point: 406 °F 208 °C
Specific Gravity: 1.24@25ºC
Vapor Pressure: <0.0001mmHg@25ºC
Vapor Density: 8.5
pH Factor: not determined
Solubility: Insoluable. Reacts with water.

10. Stability And Reactivity

Conditions To Avoid (Stability)

Stable at room temperature. Reacts slowly with water to produce carbon dioxide gas. This reaction accelerates at higher temperatures and may cause closed container to burst . Avoid high temperatures.

Incompatible Materials

Avoid contact with water, amines, alcohols, amines, acids, bases, metal compounds, phenols, mercaptans, urethanes, ureas, and surface active compounds.

Hazardous Decomposition Products

Combustion products may include hydrogen cyanide, carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke, isocyanate, isocyanic acid and other undetermined compounds.

By Reaction with Water: 4,4'-Methylene dianiline may be formed.

Conditions To Avoid (Polymerization)

Polymerization may occur at elevated temperatures in the presence of alkalies, tertiary amines and metal compounds.

11. Toxicological Information

Chronic/Carcinogenicity

None of the ingredients present in this product have been determined to be carcinogenic by IARC, NTP, OSHA, or ACGIH.

Teratogenicity (Birth Defects)

rat, female, inhalation, gestation days 6-15, 6 hrs/day, NOAEL (teratogenicity): 12 mg/m3, NOAEL (maternal): 4 mg/m3
No Teratogenic effects observed at doses tested. Fetotoxicity seen only with maternal toxicity.

Mutagenicity (Genetic Effects)

Genetic Toxicity in Vitro:
Ames: (Salmonella typhimurium, Metabolic Activation: with/without)
Positive and negative results were reported. The use of certain solvents which rapidly hydrolyze

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11. Toxicological Information - Continued

Mutagenicity (Genetic Effects) - Continued

diisocyanates is suspected of producing the positive mutagenicity results.
Genetic Toxicity in Vivo:
Micronucleus Assay: negative (mouse)

Miscellaneous Toxicological Information

Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.

Ingredient(s) - Toxicological Data

4,4'-diphenylmethane diisocyanate
- oral-rat LD50: >5,000 mg/kg
- oral-mouse LD50: 2200 mg/kg
- dermal-rabbit LD50: >5,000 mg/kg
- inhal-rat LC50: 490 mg/m3 4-hr exposure
- inhal-rat LC50 >2,240 mg/m3 1-hr exposure

polymeric diphenylmethane diisocyanate (pMDI)
- oral-ral LD50: >5,000 mg/kg
- dermal-rabbit LD50: >5,000 mg/kg
- inhalation rat LC50: 0.49 mg/l (4 hour/hours)

12. Ecological Information

Acute Toxicity - Fish And Invertebrates

Acute and Prolonged Toxicity to Fish

LCO: > 1,000 mgll (Zebra fish (Brachydanio rerio), 96 hrs)
LCO: > 3,000 mgll (Killifish (Oryzias latipes), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: > 1,000 mgll (Water flea (Daphnia magna), 24 hrs)

Toxicity - Aquatic And Terrestrial Plants

Toxicity to Aquatic Plants

NOEC: 1,640 mgll, End Point: growth (Green algae (Scenedesmus subspicatus), 72 hrs)

Environmental Fate Information

Bioaccumulation

Rainbow trout, Exposure time: 112 d, < 1 BCF
Does not bioaccumulate.
No specific information available.

13. Disposal Considerations

Dispose in accordance with applicable federal, state and local government regulations. Incineration is the preferred method.

14. Transport Information

Ground or Water Domestic Voyage

Not Restricted if shipped in containers < 3,780 kg (8333 pounds)

May be restricted if shipped in containers > 3,780 kg (8333 pounds), above this weight call Henry to verify that it exceeds RQ:

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14. Transport Information - Continued

US UN3082, RQ, Environmentally hazardous substance, liquid, n.o.s., (4,4' -Diphenylmethane Diisocyanate (MDI), 9

Canada Not Restricted

IMDG Not Restricted

IATA Not Restricted

15. Regulatory Information

SARA Hazard Classes

Acute Health Hazard
Chronic Health Hazard

SARA Section 304 Reportable Quantity: 5000
SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

Ingredient(s) - U.S. Regulatory Information

4,4'-diphenylmethane diisocyanate
SARA Title III - Section 313 Form "R"/TRI Reportable Chemical
polymeric diphenylmethane diisocyanate (pMDI)
SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

Ingredient(s) - State Regulations

4,4'-diphenylmethane diisocyanate
New Jersey - Workplace Hazard
New Jersey - Environmental Hazard
Pennsylvania - Workplace Hazard
Massachusetts - Hazardous Substance
New York City - Hazardous Substance
polymeric diphenylmethane diisocyanate (pMDI)
New Jersey - Workplace Hazard
New Jersey - Environmental Hazard
New Jersey - Special Hazard

Canadian Regulatory Information

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. WHMIS Classification: D2A - Very Toxic and D2B - Toxic

Ingredient(s) - Canadian Regulatory Information

4,4'-diphenylmethane diisocyanate
WHMIS - Ingredient Disclosure List

WHMIS - Canada (Pictograms)

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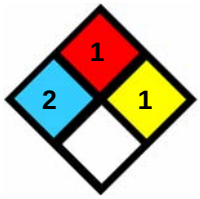
NFPA



HMIS

HEALTH	*2
FLAMMABILITY	1
REACTIVITY	1
PERSONAL PROTECTION	

16. Other Information

Revision/Preparer Information

This MSDS Supersedes A Previous MSDS Dated: 05/13/2010

Disclaimer

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