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Effective Date: 12/3/10

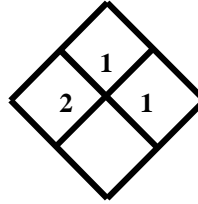
Material Safety Data Sheet

MSDS No: 6102

1. PRODUCT IDENTIFICATION

Trade Name: RenCast 6405 US

Chemical Family: Isocyanate



NFPA RATING

| | |
|-----------------------------|-------|
| Health: | 2c29] |
| Flammability: | 1 |
| Reactivity: | 1 |
| Personal Protection: | |

HMIS RATING

Synonyms:
RP 6405 Resin

Intended Use or Product Type: Polyurethane resin

2. COMPOSITION / INFORMATION ON INGREDIENTS

| O S H A | CAS No. | CHEMICAL IDENTITY | EXPOSURE LIMITS | | | | CARCINOGEN STATUS | | | |
|------------------|---|---|-----------------|------|----------|------|-------------------|------|-----|------|
| | | | ACGIH | | OSHA | | MFR. | IARC | NTP | OSHA |
| | | | TWA | STEL | PEL | STEL | | | | |
| * | 101-68-8 Common Name: Concentration | Benzene, 1,1'-Methylenebis[4-Isocyanato-MDI 30.00 - 60.00 % by wt | 0.005 ppm | NE | 0.02 ppm | NE | NE | NR | NR | NR |
| * | 25686-28-6 Common Name: Concentration | Benzene, 1,1'-Methylenebis[4-Isocyanato-, Homopolymer Modified MDI 10.00 - 30.00 % by wt | NE | NE | NE | NE | NE | NR | NR | NR |
| * | 26447-40-5 Common Name: Concentration | Benzene, 1,1'-Methylenebis[Isocyanato-Diphenylmethane diisocyanate 1.00 - 5.00 % by wt | NE | NE | NE | NE | NE | NR | NR | NR |
| * | 68515-49-1 Common Name: Concentration | 1,2- Benzenedicarboxylic Acid, di-C9-11-Branched Alkyl Esters, C10-Rich Diisodecyl phthalate 15.00 - 40.00 % by wt | NE | NE | NE | NE | NE | NR | NR | NR |

NE = Not Established NR = Not Reviewed * = OSHA Hazardous Ingredient

3. HAZARDS IDENTIFICATION

Emergency Overview: WARNING!!! Contains organic isocyanate. Causes severe eye and skin irritation and possible eye burns. Vapor or mist harmful if inhaled. Can cause allergic respiratory and skin reaction. Harmful if swallowed.

Primary Route(s) of Entry: Dermal; heated product may produce inhalable vapors.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes. Seek immediate medical attention.

Inhalation: Remove to fresh air. Seek immediate medical attention.

Eyes: Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

Overexposure Effects: Contact with liquid causes eye and skin irritation. If inhaled causes breathlessness, chest discomfort and reduced pulmonary function. May cause allergic skin and respiratory reactions in some individuals, leading to asthma type spasms of the bronchial tubes and difficulty in breathing.

Medical Conditions Aggravated by Exposure: Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases, eye conditions or recurrent skin eczema or sensitization should be excluded from working with isocyanates.

Additional Information: Referral to a physician is recommended if there is any question about the seriousness of any injury.

5. FIRE FIGHTING MEASURES

| | |
|---|-------------------|
| Flash Point: | > 93°C (> 199 °F) |
| Flash Point Method Used: | Estimated |
| Flammable Limits in Air (Lower - % by volume): | Not established |
| Flammable Limits in Air (Upper - % by volume): | Not established |

Fire Fighting Extinguishing Media: Carbon dioxide, dry chemical, foam, water.

Fire Fighting Equipment: Use self-contained breathing apparatus.

Fire and Explosion Hazards: Decomposition and combustion products may be toxic.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Remove spillage by absorbing in absorbent material.

Effective Date: 12/3/10

7. HANDLING AND STORAGE

Signal Word: Warning!

Precautions: Causes irritation if inhaled and can cause skin irritation, eye irritation, allergic respiratory reaction, and allergic skin reaction. Avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling.

Other Handling Information: Nuisance dust may be generated when sanding or sawing cured material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin Protection: Wear impermeable gloves.

Respiratory Protection: If a person is concerned with exposure to isocyanates, an organic respirator can provide protection at less than the TLV. It is not a requirement at an exposure level less than the TLV. For exposures in excess of the TLV, an air supplied respirator would be required. Conditions that may create exposures above the TLV are spray applications, the material being strongly heated in excess of 125F before application, or the use of material in poorly ventilated areas.

Eye Protection: Wear splash-proof chemical goggles.

Engineering Controls: General mechanical and local exhaust in accordance with ACGIH recommendations.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------------|-------------------------|
| Color: | Amber |
| Physical State: | Liquid |
| Solubility in Water: | Reacts with water |
| Vapor Pressure: | Not Determined |
| Specific Gravity: | 1.12 - 1.14 (water = 1) |
| Boiling Point: | Not Determined |
| Melting Point: | Not Determined |
| Evaporation Rate: | Not Determined |
| Density: | Not Determined |
| Vapor Density: | > 1 (Air = 1) |
| VOC: | Negligible |
| pH: | Not Evaluated |
| Coefficient of water/oil: | Not Evaluated |

10. STABILITY AND REACTIVITY

Conditions to Avoid: Excessive heat for prolonged periods of time.

Stability: Stable.

Incompatibility: Strong oxidizers, acids and bases.

Hazardous Decomposition Products: Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.

Effective Date: 12/3/10

11. TOXICOLOGICAL INFORMATION**Acute Inhalation Exposure Effects:** Respiratory irritant.**Sensitization:** May cause allergic skin reaction and respiratory sensitivity in some people.**Skin Irritation:** Irritant.**Eye Irritation:** Irritant.**12. ECOLOGICAL INFORMATION****13. DISPOSAL CONSIDERATIONS****Waste Disposal Method:** Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.**Additional Information:** DECONTAMINANT LIQUID: Water - 90 %, Ammonium hydroxide - 8 %, and Detergent - 2 %.**14. TRANSPORT INFORMATION****DOT: Non-Bulk****Proper Shipping Name:** Not Regulated**IATA: Non-Bulk****Proper Shipping Name:** Not Regulated**IMDG: Non-Bulk****Proper Shipping Name:** Not Regulated**TDG: Non-Bulk****Proper Shipping Name:** Not Regulated**15. REGULATORY INFORMATION****US Federal Regulations:****Occupational Safety and Health Act (OSHA):** This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.**Resource Conservation and Recovery Act (RCRA):** Not specifically listed as hazardous waste under RCRA (40 CFR 261). However, it is strongly recommended that compound be treated as a hazardous waste and disposed of accordingly.**SARA Title III: Section 313 Toxic Chemical List (TCL):** This product contains a toxic chemical(s) for routine annual toxic chemical release reporting under section 313 (40 CFR 372). This information must be included in all MSDS's copied or distributed for this material.

Chemical Name: Benzene, 1,1'-Methylenebis[4-Isocyanato-

Common Name: MDI

Percent in Composition: 51 % by wt

Effective Date: 12/3/10

Comment: DIISOCYANATE COMPOUNDS

TSCA Section 8(b) - Inventory Status: All chemical components of this product are in compliance with TSCA inventory requirements.

TSCA Section 12(b) - Export Notification: This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

International Regulations:

Australian Inventory Status: This product contains only chemicals which are currently listed on the Australian Inventory of Chemical Substances.

Canadian Inventory Status: This product contains only chemicals that are currently listed on the Canadian Domestic Substance List.

Canadian WHMIS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. D2A D2B

European Inventory Status (EINECS): This product contains only chemicals that are currently listed on the European Inventory of Existing Commercial Chemical Substances (EINECS).

Japanese Inventory Status: This product contains one or more chemicals currently not on the Japanese Ministry of International Trade and Industry List of Existing and New Chemical Substances.

State Regulations:

California Proposition 65: The following is required composition information. This product contains the following chemical(s) which are currently listed on the California list of Known Carcinogens and Reproductive Toxins:

Chemical Name: 1,2- Benzenedicarboxylic Acid, di-C9-11-Branched Alkyl Esters, C10-Rich

Common Name: Diisodecyl phthalate

CAS Number: 68515-49-1

Percent in Composition: 15 - 40 % by wt

Comment: Warning! This chemical is known to the State of California to cause birth defects or other reproductive harm.

Pennsylvania Right-to-Know: The following is required composition information:

Chemical Name: Benzene, 1,1'-Methylenebis[4-Isocyanato-

Common Name: MDI

CAS Number: 101-68-8

Comment: Environmental Hazardous Substance

Chemical Name: 1,2- Benzenedicarboxylic Acid, di-C9-11-Branched Alkyl Esters, C10-Rich

Common Name: Diisodecyl phthalate

CAS Number: 68515-49-1

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Benzene, 1,1'-Methylenebis[4-Isocyanato-, Homopolymer

Common Name: Modified MDI

CAS Number: 25686-28-6

Comment: Not on Pennsylvania Hazardous Substance List

Effective Date: 12/3/10

16. OTHER INFORMATION

MSDS No: 6102
Reason Issued: 12/10 update -06/08 update prop 65
Title: EHS Chemist

Other Information: CLW/CA1 (C10020032) [C29]

Disclaimer: The information and recommendations contained herein are based upon tests in controlled laboratory conditions, are believed to be correct, and are provided for the sole purpose of hazard communication as part of Huntsman's product safety program. This product has not been tested for, and therefore is not recommended or suitable for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended or likely, or for uses for which implantation within the human body is intended, and Huntsman assumes no liability for any such uses.

The information and recommendations contained herein are not intended to constitute performance information concerning the product, which is available in separate technical data sheets available from Huntsman upon request. Users are urged, and are urged to urge others who may come in contact with the product, to obtain and consult data sheets prior to purchase, use, transportation or storage of the product.

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USER SHOULD CONSULT A LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENTAL AGENCY TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT. HUNTSMAN DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

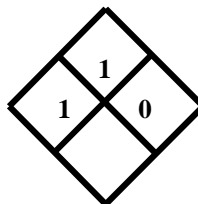
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Effective Date: 7/8/09**Material Safety Data Sheet**

MSDS No: 6103

1. PRODUCT IDENTIFICATION**Trade Name:** Ren 6405**Chemical Family:** Polyol

NFPA RATING

| | |
|-----------------------------|----------|
| Health: | 1 |
| Flammability: | 1 |
| Reactivity: | 0 |
| Personal Protection: | |

HMIS RATING

Synonyms:

RP 6405 Hardener

Intended Use or Product Type: Polyurethane hardener**2. COMPOSITION / INFORMATION ON INGREDIENTS**

| O S H A | CAS No. | CHEMICAL IDENTITY | EXPOSURE LIMITS | | | | CARCINOGEN STATUS | | | |
|------------------|------------|---|-----------------|------|------|------|-------------------|------|-----|------|
| | | | ACGIH | | OSHA | | MFR. | IARC | NTP | OSHA |
| | | | TWA | STEL | PEL | STEL | | | | |
| | 12736-96-8 | SODIUM POTASSIUM ALUMINIUM SILICATE OF VARIABLE COMPOSITION Concentration 1.00 - 5.00 % by wt | NE | NE | NE | NE | NE | NR | NR | NR |
| | 68515-49-1 | 1,2- Benzenedicarboxylic Acid, di- C9-11-Branched Alkyl Esters, C10- Rich Diisodecyl phthalate Common Name: Concentration 10.00 - 30.00 % by wt | NE | NE | NE | NE | NE | NR | NR | NR |
| | 8001-79-4 | Castor Oil Common Name: Concentration 1.00 - 5.00 % by wt | NE | NE | NE | NE | NE | NR | NR | NR |
| | 9051-49-4 | Poly(Oxy(Methyl-1,2-Ethanediy)), .alpha.-Hydro-.omega.-Hydroxy, Ether with 2,2- Bis(Hydroxymethyl)-1,3- Propanediol (4:1) Polyether polyol Common Name: Concentration 60.00 - 100.00 % by wt | NE | NE | NE | NE | NE | NR | NR | NR |

NE = Not Established NR = Not Reviewed

3. HAZARDS IDENTIFICATION

Emergency Overview: In accord with good industrial practice, handle with due care.

Primary Route(s) of Entry: Dermal; heated product may produce inhalable vapors.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes. Seek immediate medical attention.

Inhalation: Remove to fresh air. Seek immediate medical attention.

Eyes: Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

Medical Conditions Aggravated by Exposure: Skin and eye conditions.

Additional Information: Referral to a physician is recommended if there is any question about the seriousness of any injury.

5. FIRE FIGHTING MEASURES

| | |
|---|--------------------|
| Flash Point: | > 230°F (> 110 °C) |
| Flash Point Method Used: | (estimated) |
| Flammable Limits in Air (Lower - % by volume): | Not Determined |
| Flammable Limits in Air (Upper - % by volume): | Not Determined |

Fire Fighting Extinguishing Media: Carbon dioxide, dry chemical, foam, water.

Fire Fighting Equipment: Use self-contained breathing apparatus.

Fire and Explosion Hazards: Decomposition and combustion products may be toxic.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Remove spillage by absorbing in absorbent material.

7. HANDLING AND STORAGE

Signal Word: Caution!

Effective Date: 7/8/09

Precautions: Use normal industrial hygiene practices. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

Other Handling Information: Nuisance dust may be generated when sanding or sawing cured material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin Protection: Wear impermeable gloves.

Respiratory Protection: Use NIOSH approved organic vapor cartridge respirator when vapor/mist exposure is likely.

Eye Protection: Wear splash-proof chemical goggles.

Engineering Controls: General mechanical and local exhaust in accordance with ACGIH recommendations.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------------|-----------------------------|
| Color: | White, Opaque |
| Odor: | None |
| Physical State: | Liquid |
| Solubility in Water: | Slight |
| Vapor Pressure: | 0.23 mm Hg at 45°C (113 °F) |
| Specific Gravity: | 1.02 - 1.04 (water = 1) |
| Boiling Point: | Not Determined |
| Evaporation Rate: | Not Determined |
| Vapor Density: | Not Determined |
| VOC: | Negligible |
| pH: | Not Determined |
| Coefficient of water/oil: | Not Evaluated |

10. STABILITY AND REACTIVITY

Conditions to Avoid: Excessive heat for prolonged periods of time.

Stability: Stable.

Incompatibility: Strong oxidizers, acids and bases.

Hazardous Decomposition Products: Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Skin Irritation: May cause skin irritation.

Eye Irritation: May cause eye irritation.

12. ECOLOGICAL INFORMATION

Effective Date: 7/8/09

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.

Additional Information: Disposal of Cured Product: This product when cured may contain very small quantities of organic mercury compounds. It is the responsibility of the user to determine if the selected disposal method complies with applicable regulations.

14. TRANSPORT INFORMATION

DOT: Non-Bulk

Proper Shipping Name: Not Regulated

IATA: Non-Bulk

Proper Shipping Name: Not Regulated

IMDG: Non-Bulk

Proper Shipping Name: Not Regulated

TDG: Non-Bulk

Proper Shipping Name: Not Regulated

15. REGULATORY INFORMATION

US Federal Regulations:

Occupational Safety and Health Act (OSHA): This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA hazard Communication Standard 29 CFR 1910.1200. This product is not considered to be a hazardous chemical under that standard.

Resource Conservation and Recovery Act (RCRA): D 009 contains mercury.

SARA Title III: Section 304 - CERCLA: This product contains the following chemicals regulated under Section 304 (40 CFR 302) as hazardous substance(s) for emergency release notification ("CERCLA" List):

Chemical Name: Mercury, (u-((Oxydi-2,1-Ethanediy1 1,2-Benzenedicarboxylato)(2-)))Diphenyl-

Common Name: Organic Mercury Compound

CAS Number: 94070-93-6

Percent in Composition: 0.1 - 0.2 % by wt

Component RQ: 1

SARA Title III: Section 311/312 - Hazard Communication Standard (HCS): This product is regulated under Section 311-312 (40 CFR 370).

SARA Title III: Section 313 Toxic Chemical List (TCL): This product does not contain any chemicals for routine annual toxic chemical release reporting under Section 313 (40 CFR 372).

TSCA Section 8(b) - Inventory Status: All chemical components of this product are in compliance with TSCA inventory requirements.

Effective Date: 7/8/09

TSCA Section 12(b) - Export Notification: This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

International Regulations:

Australian Inventory Status: This product contains only chemicals which are currently listed on the Australian Inventory of Chemical Substances.

Canadian Inventory Status: This product contains only chemicals that are currently listed on the Canadian Domestic Substance List.

Canadian WHMIS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. D2B

European Inventory Status (ELINCS): This product contains the following chemical(s) for which one or more Pre-market Notifications have been filed. Should you wish to export products containing this product into an EC country, contact Ciba Specialty Chemicals for more information.

Japanese Inventory Status: This product contains one or more chemicals currently not on the Japanese Ministry of International Trade and Industry List of Existing and New Chemical Substances.

State Regulations:

California Proposition 65: The following is required composition information. This product contains the following chemical(s) which are currently listed on the California list of Known Carcinogens and Reproductive Toxins:

Chemical Name: 1,2- Benzenedicarboxylic Acid, di-C9-11-Branched Alkyl Esters, C10-Rich

Common Name: Diisodecyl phthalate

CAS Number: 68515-49-1

Percent in Composition: 10 - 30 % by wt

Comment: Warning! This chemical is known to the State of California to cause birth defects or other reproductive harm.

Chemical Name: Mercury, (u-((Oxydi-2,1-Ethanediy1 1,2-Benzenedicarboxylato)(2-)))Diphenyl-

Common Name: Organic Mercury Compound

CAS Number: 94070-93-6

Percent in Composition: 0.1 - 0.2 % by wt

Comment: Warning! This chemical is known to the State of California to cause birth defects or other reproductive harm.

Pennsylvania Right-to-Know: The following is required composition information:

Chemical Name: Poly(Oxy(Methyl-1,2-Ethanediy1)), .alpha.-Hydro-.omega.-Hydroxy, Ether with 2,2-Bis(Hydroxymethyl)-1,3-Propanediol (4:1)

Common Name: Polyether polyol

CAS Number: 9051-49-4

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: 1,2- Benzenedicarboxylic Acid, di-C9-11-Branched Alkyl Esters, C10-Rich

Common Name: Diisodecyl phthalate

CAS Number: 68515-49-1

Comment: Not on Pennsylvania Hazardous Substance List

16. OTHER INFORMATION

Effective Date: 7/8/09

MSDS No: 6103
Reason Issued: 7/09 update OSHA -6/09 update WHMIS
Prepared By: Matt Austin

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