

## MATERIAL SAFETY DATA SHEET

Trade Name: InstaCote™ SE Isocyanate Part “A”

### Section I -General Information

Item Name: InstaCote™ SE Isocyanate, Part “A”

Manufacture: InstaCote, Inc.  
160 C Lavoy Road  
Erie, MI 48133

Date MSDS Prepared: December 6, 1995  
Last Review Date: March 6, 2002  
MSDS Preparers Name/Address: Prepared by manufacturer.  
Product Description: Pre-polymerized Isocyanate Blend.  
Multiple Parts Product (Y/N): Y

### Section II – Hazardous Ingredient/Identity Information

Proprietary (Y/N): Y

<u>Ingredient</u>	<u>CAS #</u>	<u>Exposure Limits (TWA)</u>
4, 4'-diphenylmethane Di-isocyanate	101-68-8	0.02 ppm ceiling limit, OSHA 0.005 ppm ACGIH TLV, TWA
Mixed Isomers	26447-40-5	0.02 ppm ceiling limit, OSHA 0.005 ppm TLV, ACGIH

### Section III-Physical/Chemical Characteristics

Appearance and Odor. Clear, amber color thick liquid with faint odor  
Boiling Point: 738°F  
Melting Point: 99°F  
Vapor Pressure: 0.001 mm Hg @ 130°F  
Vapor Density: No data  
Specific Gravity: 1.140 @ 72°F  
Decomposition Temp.: Above 738°F  
Evaporation Rate: No data  
Solubility (H<sub>2</sub>O): 0.2% by wt @ 68°F  
Percent Volatiles by Volume: unknown  
Viscosity: 1300 cP (Brookfield #2 spindle @ 12 rpm) 72°F  
pH: Not applicable

#### **Section IV - Fire and Explosion Hazard Data**

Flash Point: 396°F C.O.C.  
Lower Explosive Limit: Not Determined  
Upper Explosive Limit: Not Determined  
Extinguishing Media/Methods: Use dry chemical, CO<sub>2</sub>, AFFF (foam). If only water is available Use very large volume. Reaction with water at elevated temperatures may be violent. Runoff water must be retained.  
Special Fire Fighting Precautions: Full face shield, self-contained breathing apparatus with full protective gear.  
Unusual Fire/Explosive Hazards: Isocyanate and water combined react to produce carbon dioxide. Contaminated, sealed containers may rupture.

#### **Section V - Reactivity Data**

Stable (Y/N): Y  
Conditions to Avoid: High temperatures  
Materials to Avoid: Product may react violently with water, alcohol, amines, acids, bases.  
Hazardous Decomposition Products: Oxides of carbon, oxides of nitrogen, ammonia and trace amounts of Hydrogen cyanide.  
Hazardous Polymerization: May occur. Avoid contamination with liquid water or water vapor.

#### **Section VI - Health Hazard Data**

Routes of Entry  
Inhalation (Y/N): Y, May cause respiratory tract irritation(pulmonary edema, nasal discharge, coughing, chest pain. This product may cause respiratory sensitization, in which, after repeated exposures above the occupational exposure limit, hyper-reactive responses may occur in sensitized individuals following minimal doses.  
Skin (Y/N): Y, Product exhibits skin sensitization. Some evidence indicates that skin contact may induce a respiratory sensitization reaction.  
Ingestion (Y/N): Y, May cause digestive tract and gastrointestinal tract. Systemic ingestion effects are practically non-toxic.  
Other: Y, Acute vapor exposures may temporarily cause hazy or blurred vision.  
Contact Eye/Skin Hazards: Y, Product is a mild eye and skin contact irritant.  
Carcinogenicity Data: No human or animal carcinogenic data is available.  
IARC Monographs on the Evaluation of the Carcinogenic: None

#### **First Aid Procedures:**

Gross Inhalation: Move victim to fresh air environment. First administer oxygen, if available. Seek immediate medical attention.

Gross Ingestion: If victim is conscious, give at least two glasses of water. DO NOT INDUCE VOMITING. Seek medical assistance.

Skin Contact - Wash affected areas with soap and water. Wash soiled clothing

**Section VI - Health Hazard Data (cont.)**

before reuse.

Severe Eye Contact - Flush eyes with water for 15 minutes. Seek medical attention.

**Section VII - Precautions for Safe Handling and Use**

Personal Protective Equipment (Routine Use):

Respiratory Protection: Airborne concentrations of chemical should be maintained as low as possible. If vapors or mists are formed, use NIOSH/MSHA approved air supplied respirator to prevent overexposure.

Gloves: Recommend latex, butyl rubber, or nitrile gloves.

Eye Protection: Safety goggles or glasses with face shield are recommended.

Other: Recommend Tyvek suits or coveralls.

Work Practices: This product may be used in indoor or outdoor environments.

Exposures to hazardous components are not expected to exceed permissible limits during routine daily use.

Ventilation: If vapors or mists are generated, local exhaust ventilation is recommended.

Spill/Release Procedures: For major spills, call CHEMTREC 1-800-424-9300. Ventilate area and avoid breathing vapors. Use chemical cartridge respiratory protection and full protective clothing to clean large spills or spills in confined areas. Contain spill, and prevent entry into sewers and waterways.

Neutralization Procedures: Use 0.2-0.5% liquid detergent mixed with 3-8% Ammonium hydroxide or 5-10% sodium carbonate in water. Use 10 parts of solution for one part of Spill material. Allow 30 minutes to deactivate before placing spilled material into drums. Do not mix with any other waste material.

Waste Disposal Procedures: This material is not a listed hazardous waste, nor does it exhibit any hazardous waste characteristic.

Storage/Handling Procedures: Store product in a dry environment, away from strong bases and oxidizers. Do not place in contact with copper metal, copper alloys or zinc coated metals. Purge headspace in partially use container with dry nitrogen gas.

**Section VIII-Transportation Information:**

Bill of Lading description: Liquid, NOS, (MDI), NA3082, PGIII

END

## MATERIAL SAFETY DATA SHEET

Trade Name: InstaCote™ SE Resin, Part “B”

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### Section I -General Information

Item Name: InstaCote™ SE Resin, Part “B”

Manufacture: InstaCote, Inc.  
160 C. Lavoy Road  
Erie, MI 48133  
Phone 734-847-5260  
Fax 734-847-9008

Date MSDS Prepared: December 6, 1995

Last Review Date: March 6, 2002

MSDS Preparers Name/Address: prepared by manufacturer.

Product Description: Liquid aromatic polyamine/polyoxyalkyleneamine with  
An ammoniacal odor of various colors

Multiple Part Product (Y/N): Y ( ISO Part “A” is other half of this 2 part system)

Proprietary (Y/N): Y

### Section II – Ingredient/Identity Information

<u>Ingredient</u>	<u>CAS #</u>	<u>Exposure Limits (TWA)</u>
Aromatic Amine mixture	Proprietary	
Polyoxyalkyleneamine	9046-10-0	Not established
Diethyltoluenediamine	68479-98-1	Not established

Various pigments and or dyes can be present

Product is listed or hazardous according to one or more state Right To Know (SARA III) or federal Toxic Chemical Release Inventory, or Toxic Substance Control Act Laws.

### Section III Physical/Chemical Characteristics

Appearance and Odor: Colored, glossy liquid with ammoniacal odor

Boiling Point: Not determined

Melting Point: Not determined

Vapor Pressure: Not determined  
Vapor Density: Not determined  
Specific Gravity: 1.014 @ 69°F  
Evaporation Rate: Not determined  
Solubility (H<sub>2</sub>O): <0.02% by wt. @ 69°F  
Percent Volatiles by Volume: less than 0.001%  
Viscosity: 855 cP (Brookfield, #2 spindle @ 12rpm, @ 69°F)  
pH: Not applicable

#### **Section IV - Fire and Explosion Hazard Data**

Flash Point: > 275°F  
Lower Explosive Limit: Not established  
Upper Explosive Limit: Not established  
Extinguishing Media/Methods: Use dry chemical, CO<sub>2</sub>, AFFF (foam), or water.  
Special Fire Fighting Precautions: None  
Unusual Fire/Explosive Hazards: None

#### **Section V - Reactivity Data**

Stable (Y/N): Y  
Conditions to Avoid: None  
Materials to Avoid: Do not mix with nitrites, May react violently with acids.  
Hazardous Decomposition Products: Oxides of Carbon, Oxides of Nitrogen, ammonia, aldehydes and ketones

#### **Section VI - Health Hazard Data**

##### Routes of Entry

Inhalation (Y/N): Y, May cause respiratory tract irritation (pulmonary edema), nasal discharge, coughing and chest pain. Prolonged exposure may result in permanent lung damage.  
Skin (Y/N): Y, Product is expected to be toxic by dermal absorption.  
Ingestion (Y/N): Y, May cause digestive tract irritation and respiratory tract irritation and lung damage upon aspiration.  
Other: Y, Acute vapor exposure may temporarily cause hazy or blurred vision.

Contact Eye/Skin Hazards: This product is highly corrosive and may cause severe burns, redness, swelling, and blistering upon direct contact.

Carcinogenicity Data: No human carcinogenic data is available. Evidence of limited tumor growth

in animals.

IARC Monographs on the Evaluation of the Carcinogenic: None available.

**First Aid Procedures:**

Gross Ingestion: If victim is conscious, give at least two glasses of water. Do not induce vomiting. Seek immediate medical attention. Physician should evacuate stomach by means least likely to cause aspiration.

Gross Inhalation: Move victim to fresh air environment. Seek immediate medical attention. Notify physician of corrosive nature of chemical.

Skin Contact - Wash affected areas with soap and water. Laundry soiled clothing before reuse.

Severe Eye Contact - Flush eyes with water for 15 minutes. Seek medical attention.

**Section VII - Precautions for Safe Handling and Use**

Personal Protective Equipment (Routine Use):

Respiratory Protection: In cases when excessive mists might be periodically created, use NIOSH/MSHA approved full or half face respirators with dust cartridges when pouring and mixing product.

Gloves: Recommend latex, butyl rubber, or nitrile gloves.

Eye Protection: Safety goggles or glasses recommended.

Other: Recommend Tyvek suits or coveralls.

Work Practices: This product is to be used both outdoors and in enclosed environments with adequate respiratory and, or ventilation controls. Do not use in presence of flames or sparks.

Ventilation: If routine indoor use is required, or in the presence of excess mist generation, local exhaust ventilation is recommended.

Spill/Release Procedures: Excess spilled product, if uncontaminated, may be cleaned and disposed of as ordinary waste. No special clean up procedures are recommended.

Neutralization Procedures:

Waste Disposal Procedures: This material is not a listed hazardous waste, nor does it exhibit any hazardous waste characteristic.

Storage/Handling Procedures: Store product in a dry environment, away from strong acids and oxidizers.

End

## MATERIAL SAFETY DATA SHEET

Trade Name: InstaCote™ SE Cured Plastic

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### **Section I -General Information**

Item Name: InstaCote™ SE Cured plastic

Manufacture: InstaCote, Inc.  
160 C. Lavoy Road  
Erie, MI 48133  
Phone 734-847-5260  
Fax 734-847-9008

Date MSDS Prepared: July 8, 2002

Last Review Date: July 8, 2002

MSDS Preparers Name/Address: prepared by manufacturer.

Product Description: MDI Polyurea Plastic

Multiple Part Product (Y/N): Y (Finished Part of "A & B" of this 2 part system)

Proprietary (Y/N): Y

### **Section II – Ingredient/Identity Information**

Not hazardous

### **Section III Physical/Chemical Characteristics**

Appearance and Odor: No odor, color usually black

Boiling Point: Not determined

Melting Point: Not determined

Vapor Pressure: Not determined

Vapor Density: Not determined

Specific Gravity: Not determined

Evaporation Rate: Not determined

Solubility (H<sub>2</sub>O): None

Percent Volatiles by Volume: less than 0.001%

Viscosity: None solid

pH: Not applicable

#### **Section IV - Fire and Explosion Hazard Data**

Flash Point: N/A  
Lower Explosive Limit: Not determined  
Upper Explosive Limit: Not determined  
Extinguishing Media/Methods: Use dry chemical, CO<sub>2</sub>, AFFF (foam), or water.  
Special Fire Fighting Precautions: Full face shield, self contained breathing apparatus with full protective gear.  
Unusual Fire/Explosive Hazards: See Omega Labs Fire testing results

#### **Section V - Reactivity Data**

Stable (Y/N): Y  
Conditions to Avoid: Temperature in excess of 350°F  
Materials to Avoid: Concentrated strong acids  
Hazardous Decomposition Products: Oxides of Carbon, Oxides of Nitrogen, ammonia, aldehydes and ketones

#### **Section VI - Health Hazard Data**

Routes of Entry  
Inhalation (Y/N): N  
Skin (Y/N): N  
Ingestion (Y/N) N  
Other: (Y/N) N  
  
Contact Eye/Skin Hazards: (Y/N) N  
Carcinogenicity Data: (Y/N) N  
IARC Monographs on the Evaluation of the Carcinogenic: (Y/N) N

#### **First Aid Procedures:**

Gross Ingestion: (Y/N) N  
Gross Inhalation: (Y/N) N  
Skin Contact - (Y/N) N  
Severe Eye Contact - (Y/N) N

#### **Section VII - Precautions for Safe Handling and Use**

Personal Protective Equipment (Routine Use):  
Respiratory Protection: (Y/N) N  
Gloves: (Y/N) N  
Eye Protection: (Y/N) N  
Other: Recommend Tyvek suits or coveralls.  
Work Practices: (Y/N) N  
Ventilation: (Y/N) N



Spill/Release Procedures: (Y/N) N

Neutralization Procedures:

Waste Disposal Procedures: (Y/N) N

Storage/Handling Procedures: (Y/N) N