

MATERIAL SAFETY DATA SHEET

Trade Name: **Raven 150 - Part A**

SECTION I: COMPANY INFORMATION

Company: RLS
13105 East 61st Street South, Suite A
Broken Arrow, OK 74012

Emergency Telephone #: 800-424-9300
Chemtrec

Revision Date: 10/10/07

Information Telephone #: 918-615-0020
800-324-2810

SECTION II: INGREDIENT INFORMATION

<u>INGREDIENT</u>	<u>CAS NUMBER</u>	<u>PERCENT</u>	<u>PEL</u>	<u>TLV</u>
Epoxy Resin	25085-99-8	40 - 70%	N/E	N/E
N-Butyl Glycidyl Ether (AKA: BGE)	2426-08-6	10 - 20%	50 ppm	25 ppm
Silica, Amorphous, Fumed, Crystalline-free	67762-90-7	0 - 5%	*6 mg/m ³	*3 mg/m ³

N/E indicates "not established"

SARA Title III, Section 313 ingredients: None

All ingredients are TSCA inventory listed.

*Note: The PEL and TLV for this ingredient are the TWA for respirable dust levels only. In this product, it is pre-dispersed and not available as a dust. Therefore, under normal use conditions it is not considered a hazard.

SECTION III: PHYSICAL DATA

Boiling Point: > 200 deg F

Vapor Pressure: 1 mm Hg

Vapor Density: 4.5 (air = 1)

Solubility in Water: Negligible

Appearance and Odor: Heavy paint consistency - mild epoxy odor

Specific Gravity: 1.3

Melting Point: Not determined

Evaporation Rate: Not determined

% Volatile by Volume: <1%

SECTION IV: FIRE & EXPLOSION HAZARD DATA

Flash Point: > 200 deg F, closed cup

Extinguishing Media: Foam, CO₂, Dry Chemical, Water Spray

Special Fire Fighting Procedures: The use of self-contained breathing apparatus is recommended for firefighters. Water may be helpful in keeping adjacent containers cool. Avoid spreading burning liquid with water used for cooling purposes.

Unusual Fire and Explosion Hazards: Keep work areas free of hot metal surfaces and other sources of ignition.

NFPA classification: Health: 3 Flammability: 1 Reactivity: 0

OSHA/NFPA Fire Hazard Classification: Class III B

LFL: Not determined **UFL:** Not determined

SECTION V: REACTIVITY DATA

Stability: Stable, will react with amines.

Incompatibility: Strong acids and bases, selected amines, oxidizing agents.

Hazardous Decomposition or Byproducts: Thermal decomposition in the presence of air may yield carbon monoxide, carbon dioxide, phenolics, acids, aldehydes, ketones and other unidentified toxic and/or irritating compounds.

Hazardous Polymerization: Will not occur.

SECTION VI: HEALTH HAZARD DATA

Primary Routes of Entry:

EYES: May be severely irritating to the eyes causing pain, redness, swelling, blurred vision and corneal damage.

SKIN: Based on BGE, product may be toxic and harmful if absorbed through the skin. BGE is severely irritating to the skin, causing pain, redness and swelling. Based on BGE, repeated skin contact may cause allergic skin reaction in susceptible individuals causing itching, burning, redness and swelling.

INHALATION: This product does not normally present an inhalation hazard, however, in situations where vapors or mists are created, breathing may be irritating to the respiratory system and cause a mild burning sensation in the nose, throat and lungs. Based on BGE, product may be toxic and harmful if inhaled and repeated breathing may cause an allergic reaction resulting in difficulty in breathing which could become life threatening. Breathing high vapor concentrations of BGE may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Inhalation may result in unconsciousness and death.

INGESTION: Not expected to be a relevant route of exposure, however, BGE may be moderately toxic and harmful if swallowed and cause CNS depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Significant ingestion may result in unconsciousness and death.

SYSTEMIC and OTHER EFFECTS: Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects.

Carcinogenicity: Contains no ingredient listed as a potential carcinogen or as a carcinogen per OSHA, ACGIH, NTP or IARC at concentrations equal to or greater than 0.1%.

Emergency and First Aid Procedures:

EYES: Flush with large quantities of water for at least 15 minutes. Consult a physician.

SKIN: Wash thoroughly with soap and water. If redness, swelling, pain and/or blisters occur, consult a physician.

INHALATION: Remove to fresh air if effects occur. Consult a physician.

INGESTION: Don't give liquids to a drowsy, convulsing or unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Transport to nearest medical facility for additional treatment.

SECTION VII: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled: Keep sources of ignition and hot metal surfaces isolated from the spill. Material may flow slowly. Scrape into containers for disposal.

Waste Disposal Methods: Dispose of according to all local, state and federal regulations.

Precautions to Be Taken in Handling and Storing: Keep containers closed when not in use. Avoid prolonged or repeated contact with skin. DO NOT handle or store near flame, heat or strong oxidants. Do not store in direct sunlight. Avoid prolonged storage above 38 deg C (100 deg F).

SECTION VIII: CONTROL MEASURES

RESPIRATORY: If exposure may or does exceed occupational exposure limits, respiratory irritation is experienced, or during spray application, use a properly fitted MSHA/NIOSH approved respirator fitted with organic vapor cartridges and paint pre-filters. If sanding or grinding on cured material, use above respirator fitted with HEPA filters or a dust mask.

VENTILATION: General mechanical ventilation is sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

EYES: Use safety glasses, splash-proof eye goggles or goggles with full faceshield.

CLOTHING/GLOVES: Use impermeable gloves to prevent skin irritation. If potential for skin contact is present, impervious protective clothing should be worn.

OTHER PROTECTIVE EQUIPMENT: The availability of eye washes and safety showers in work areas is recommended.

SECTION IX: TRANSPORT DATA

Proper Shipping Name: Not regulated

Hazard Class: Not regulated by D.O.T. regulations

Identification Number: None

Packing Group: None

SECTION X: DISCLAIMER

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MATERIAL SAFETY DATA SHEET

Trade Name: **Raven 150 - Part B**

SECTION I: COMPANY INFORMATION

Company: RLS
13105 East 61st Street South, Suite A
Broken Arrow, OK 74012

Emergency Telephone #: 800-424-9300
Chemtrec

Revision Date: 10/10/07

Information Telephone #: 918-615-0020
800-324-2810

SECTION II: INGREDIENT INFORMATION

<u>INGREDIENT</u>	<u>CAS NUMBER</u>	<u>PERCENT</u>	<u>PEL</u>	<u>TLV</u>
Polyaminoamide	68410-23-1	30 - 50%	N/E	N/E
Alkylphenol	84852-15-3	10 - 20%	N/E	N/E
Silica, Amorphous, Fumed, Crystalline-free	67762-90-7	0 - 5%	*6 mg/m ³	*3 mg/m ³
2,4,6-tris(Dimethylaminomethyl) Phenol	90-72-2	0 - 5%	N/E	N/E
Aliphatic Amine	1477-55-0	1 - 3%	N/E	0.1 mg/m ³ skin
2-Methyl pentamethylenediamine	15520-10-2	0 - 3%	N/E	N/E

N/E indicates "not established"

SARA Title III, Section 313 ingredients: None

All ingredients are TSCA inventory listed.

*Note: The PEL and TLV for this ingredient are the TWA for respirable dust levels only. In this product, it is pre-dispersed and not available as a dust. Therefore, under normal use conditions it is not considered a hazard.

SECTION III: PHYSICAL DATA

Boiling Point: > 200 deg F

Vapor Pressure: Not determined

Vapor Density: Not determined

Solubility in Water: Slight

Appearance and Odor: Heavy paint consistency – slight ammonia odor

Specific Gravity: 1.1

Melting Point: Not determined

Evaporation Rate: Not determined

% Volatile by Volume: <1%

SECTION IV: FIRE & EXPLOSION HAZARD DATA

Flash Point: >200 deg F, TCC Method

Extinguishing Media: Foam, CO₂, Dry Chemical, Water Spray

Special Fire Fighting Procedures: The use of self-contained breathing apparatus is recommended for firefighters. Water may be helpful in keeping adjacent containers cool.

Unusual Fire and Explosion Hazards: Keep work areas free of hot metal surfaces and other source of ignition.

NFPA classification: Health: 3 Flammability: 1 Reactivity: 0

OSHA/NFPA Fire Hazard Classification: Class III B

LFL: Not determined **UFL:** Not determined

SECTION V: REACTIVITY DATA

Stability: Stable

Incompatibility: Strong acids and bases, selected epoxy resins and strong oxidizing agents.

Hazardous Decomposition or Byproducts: Thermal decomposition in the presence of air may yield carbon monoxide, carbon dioxide, ammonia, nitrogen oxides and other unidentified toxic and/or irritating compounds.

Hazardous Polymerization: Will not occur.

SECTION VI: HEALTH HAZARD DATA

Primary Routes of Entry:

EYES: Severe eye irritant. May cause burns. Vapors may be irritating.

SKIN: Severe skin irritant. May cause injury to skin following prolonged or repeated contact. Repeated exposure may cause sensitization of the individual.

INHALATION: Vapors/mists may be corrosive to the upper respiratory tract. Repeated or prolonged exposure can result in lung damage. May cause respiratory tract sensitization.

INGESTION: Not expected to be a relevant route of exposure. However, the material is corrosive and may cause permanent damage to the mouth, throat and stomach.

SYSTEMIC and OTHER EFFECTS: Product can be alkaline, corrosive and irritating to skin, ears, eyes and mucous membranes. May cause injury upon prolonged contact and repeated contact.

Carcinogenicity: Contains no ingredient listed as a potential carcinogen or as a carcinogen per OSHA, ACGIH, NTP or IARC at concentrations equal to or greater than 0.1%.

Emergency and First Aid Procedures:

EYES: Flush with large quantities of water for at least 15 minutes. Seek immediate medical attention.

SKIN: Wash immediately with soap and water. If irritation or sensitization occurs, remove individual from further contact with material. Remove and wash contaminated clothing before reuse.

INHALATION: Remove to fresh air if effects occur. Consult a physician.

INGESTION: If this product is swallowed, administer 3-4 glasses of milk or water. Do not induce vomiting. Seek medical advice.

SECTION VII: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled: Keep sources of ignition and hot metal surfaces isolated from the spill. Material may flow slowly. Scrape into containers for disposal.

Waste Disposal Methods: Dispose of according to all local, state and federal regulations.

Precautions to Be Taken in Handling and Storing: Keep containers closed when not in use. Avoid breathing vapors and prolonged or repeated contact with skin. DO NOT handle or store near flame, heat or strong oxidants. Do not store in direct sunlight. Avoid prolonged storage above 38 deg C (100 deg F).

SECTION VIII: CONTROL MEASURES

RESPIRATORY: Respiratory protection should not be needed. If exposure may or does exceed occupational exposure limits, respiratory irritation is experienced, or during spray application, use a properly fitted MSHA/NIOSH approved respirator fitted with ammonia & methylamine cartridges. In addition, spray application may require the use of paint pre-filters. If sanding or grinding on cured material, use above respirator fitted with HEPA filters or a dust mask.

VENTILATION: General mechanical ventilation is sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

EYES: Use chemical safety glasses, splash-proof eye goggles or goggles with full faceshield.

CLOTHING/GLOVES: Use nitrile or other chemical resistant gloves. Wear clean, long-sleeved, body covering clothing and rubber boots.

OTHER PROTECTIVE EQUIPMENT: The availability of eye washes and safety showers in work areas is recommended.

SECTION IX: TRANSPORT DATA

Proper Shipping Name: Amines, liquid, corrosive, n.o.s. (Polyaminoamide)

Hazard Class: Corrosive Material - 8

Identification Number: UN 2735

Packing Group: III

SECTION X: DISCLAIMER

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