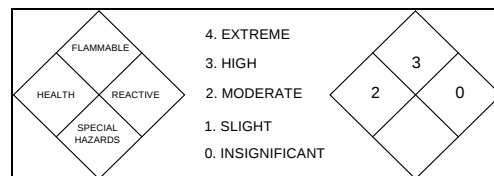


MATERIAL SAFETY DATA SHEET

ROOFING PRODUCTS INTERNATIONAL, INC.

MSDS 119 ROYAL EDGE LOW VOC BONDING ADHESIVE SOLVENT BASED



SECTION 1 – PRODUCT IDENTIFICATION

Product Name: Royal Edge Low VOC Bonding Adhesive Solvent Based		24 Hour Emergency Telephone Number: 800-424-9300 CHEMTREC
Chemical Name/Synonyms: Solvent Based Adhesive	Product Code: BAS5GLV (5-gallon)	Manufacturer's Name/Address: Roofing Products International, Inc. 57460 Dewitt St., Elkhart, IN 46517-1078
Chemical Formula: Not Established		NFPA Acute Hazard Rating: Health 2, Flammability 3, Reactivity 0
Chemical Formula: Polychloroprene Based Adhesive		HMIS Acute Hazard Rating: Health 2, Flammability 3, Reactivity 0

SECTION 2 – CHEMICAL COMPOSITION

Ingredient Components (chemical names) Commo Names Hazardous components 1% or greater	COMMON NAME	% (by wt)	CASE NO.	OSHA PEL-TWA	ACGIH TLV-TWA
Tert-butyl Acetate	Acetic Acid	30-60	540-88-5	200 ppm	200 ppm
Toluol	Toluene	1-6	108-88-3	200 ppm OSHA CEIL: 300 ppm	20 ppm
Acetone	Methyl Ketone	10-40	67-64-1	1000 ppm	500 ppm ACGIH STEL: 750 ppm
Acetic Acid, Methyl Ester	Methyl Acetate	1-15	79-20-9	200 ppm	200 ppm ACGIH STEL: 750 ppm
Nonhazardous as per CFR 1910.1200 None < 58 TSCA Registered Non Established					

SECTION 3 – PHYSICAL & CHEMICAL CHARACTERISTICS

Appearance/Odor: Yellow liquid, with a strong solvent odor.	Physical State: Liquid	Solubility in Water: Insoluble, not miscible
Boiling Point: 131°F	Specific Gravity (H ₂ O=1) 0.899	Melting Point: NA
Vapor Pressure: @ 20° C (68° F): 175 mm Hg	Vapor Density (Air=1) Unknown	VOC Content: 218 g/l
Volatiles: (% Wt or % Vol) 77%	Evaporation Rate: (Butyl Acetate=1) Unknown	Solids Content: 22%
Weight per Gallon: 7.45 +/- 0.15 lb/gal	pH undiluted product: Unknown	Ignition Temperature: 869° F

SECTION 4- FIRE & EXPLOSION HAZARD DATA

Flash Point: - 19° C, 2° F	Flammable Limits (in air): LEL: 2.6 Vol %; UEL: 13 Vol %
Extinguishing Media: Water fog followed by standard fire extinguishers-course stream. Dry chemical, carbon dioxide, and foam can also be used along with vaporizing liquid type agents. Water should be used to keep fire-exposed containers cool and to protect firefighters attempting to stop a leak/spill or extinguish a fire.	Fire Fighting Procedures: Use water spray to cool adjacent surfaces and fire exposed containers. Protect against inhalation of combustion products. Firefighters should wear full protective clothing including self-contained breathing apparatus to prevent inhalation of smoke and decomposition products. Toxic fumes and vapors may be involved.
Hazardous Decomposition Products: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen, Sulfur Dioxide, and Hydrogen Chloride, (thermal degradation products).	Special Fire & Explosion Hazards: <u>This product is non-explosive, however formation of explosive air/vapor mixtures are possible.</u>
Method Used: Not Known	Keep work areas free from open flames, sparks, hot metal surfaces and other sources of ignition. Ground objects prone to static electricity.
Auto-Ignition Temperature: This product is not self-igniting.	

SECTION- 5 HEALTH HAZARD DATA

Permissible Exposure Limit: Not Established			Signs and Symptoms of Exposure: Dizziness, nausea or vomiting. Sensitive individuals may exhibit eye, nose, throat or dermal irritation with prolonged exposure to processing fumes or vapors.
Effects of Overexposure: Medical Conditions Aggravated By Exposure Toxic fumes may be released during fire. Exposure to fumes may aggravate pre-existing eye, lung, and skin conditions.			
Acute Toxicity: 108-88-3 Toluene			Chemical Listed as a Carcinogen (or Potential Carcinogen): Toluene is listed by IARC as a class 3, unclassifiable as to carinogenicity in humans.
Oral	LD50	5000 mg/kg (rat)	Chronic: Excess exposure can cause CNS depression, headache, nausea, narcosis, and liver and kidney damage.
Dermal	LD50	1214 mg/kg (rabbit)	
Inhalative	LC50/4 h	5320 mg/l (mouse)	
Emergency & First Aid Procedures: Eye Contact: Flush with water and call physician Skin Contact: Clean with rubbing alcohol, followed by soap and water.			Inhalation: Remove to fresh air. Administer oxygen or artificial Respiration, if necessary. Call a physician.
Primary Irritant: to eyes: Irritating effect to skin: Irritant to skin and mucous membranes			Ingestion: Consult a physician. DO NOT INDUCE VOMITING Primary Route of Entry: Inhalation.

SECTION 6 – REACTIVITY DATA

Stability: Stable at ambient temperatures and pressures	Incompatibility: Strong oxidizers, acids, bases.
Hazardous Decomposition Products: Toxic gases or vapors, such as oxides of carbon and nitrogen along with trace of HCL may be released during a fire.	Hazardous Polymerization: NA
Conditions to Avoid: Open flames and sparks. Closed areas that restrict adequate ventilation. Toxic to fish. Do not contaminate ground water, water course, or sewage systems. Toxic to aquatic life.	

SECTION 7 – SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled:

Small spill:

Absorb using inert material. Use non-sparking tools. Transfer into secure containers for proper disposal.

Use personal protective equipment as outlined below.

Large Spill:

Same as small spill.

Waste Disposal Method:

Dispose of as a hazardous waste in accordance with EPA/RCRA regulations 40CFR261 21(a) (1) Ignitability: D001

SECTION 8 – SPECIAL PROTECTION

Respiratory Protection:

Use NIOSH-Certified respiratory protection for organic vapor if necessary.

Eye Protection:

Impervious glasses recommended

Protective Gloves:

Impervious gloves are recommended to prevent skin contact.

Other Protective Equipment:

Under normal application conditions, protective glasses, gloves, and clothing are adequate.

Ventilation:

Provide adequate ventilation to maintain airborne concentrations below OSHA PELs.

SECTION 9 – SPECIAL PRECAUTIONS OR OTHER COMMENTS

Storage/Handling:

Store in cool, dry, well ventilated facility. Store and use away from all sources of direct heat and ignition. Keep containers closed when not in use.

Other Precautions:

Provide adequate ventilation and avoid prolonged or repeated contact with the skin. Wash with soap and water after contact.

Work/Hygienic Practices:

Maintain good personal hygiene practices. Wash contaminated clothing before reuse. Do not eat, drink, or smoke in work areas. Wash exposed skin before eating, drinking, smoking, or applying cosmetics.

SECTION 10 - TRANSPORTATION

Regulatory Agency:

U.S.A., DOT, IMO

Identification Number:

UN 1133

Labels Required:

Flammable Liquid

Proper Shipping Name:

Adhesives

Hazard Classification:

3

Packing Group:

II

Other Requirements:

None Known

SECTION 11 – MISCELLANEOUS INFORMATION

Date of Previous MSDS:

None

Telephone Number for Additional Information:

(574) 293-9096

Changes Since Previous MSDS:

NONE: New product

Additional Information:

VOC Rule 1168 for OTC: 215 gm/l

VOC: 52 gm/l

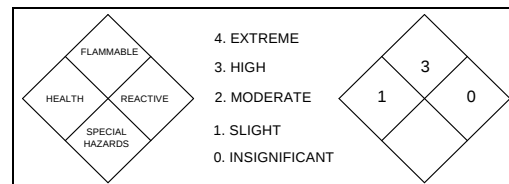
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MATERIAL SAFETY DATA SHEET

ROOFING PRODUCTS INTERNATIONAL, INC.

MSDS 120 ROYAL EDGE LOW VOC PRIMER/ACTIVATOR



SECTION 1 – PRODUCT IDENTIFICATION

Product Name: Royal Edge Low VOC Primer/Activator		24 Hour Emergency Telephone Number: 800-424-9300 CHEMTREC
Chemical Name/Synonyms: Synthetic Rubber Polymers	Product Code: PA1GLV (1-gallon)	Manufacturer's Name: Roofing Products International, Inc.
Chemical Family: Mixture		Manufacturer's Address: 57460 Dewitt St., Elkhart, IN 46517-1078
Chemical Formula: Not Established		NFPA Acute Hazard Rating: Health 1, Flammability 3, Reactivity 0 HMIS Acute Hazard Rating: Health 1, Flammability 3, Reactivity 0

SECTION 2 – CHEMICAL COMPOSITION

Ingredient Components (chemical names)	Case No.	% by Weight
Heptane	142-82-5	5-20
PEL 2000 mg/m³, 500 ppm REL Short-term value: C 1800* mg/m³, C 440* ppm Long-term value: 350 mg/m³, 85 ppm *15-min TVL Short-term value: 2050 mg/m³, 500 ppm Long-term value: 1640 mg/m³, 400 ppm		
4-chloro-alpha, alpha, alpha-trifluorotoluene (oxsol 100)	98-56-6	65-85

SECTION 3 – PHYSICAL & CHEMICAL CHARACTERISTICS

Appearance/Odor: Thin clear liquid, characteristic odor	Physical State: Liquid	Solubility in Water: Insoluble
Boiling Point: 98° C (208° F)	Specific Gravity (HO=1) 1.13 (Water=1)	Melting Point: NA
Vapor Pressure: @ 20°C, 68°F 48.0 hPa (36 mm Hg)	Vapor Density (Air=1) 3.6	Freezing Point: Not Established
Percent Volatiles: 85 %	Evaporation Rate: (ethyl ether = 1): 3.5	Reactivity in Water: Not Established
Organic Solid Content: 90.5%	Percent Solids (by weight): 9.5%	Ignition Temperature: 215° C (419° F)
Additional Information: VOC: 1.79 lbs/gal 215 g/l SCAQMD RULE 1168 METHOD WEIGHT PER GALLON: 9.4 lbs		