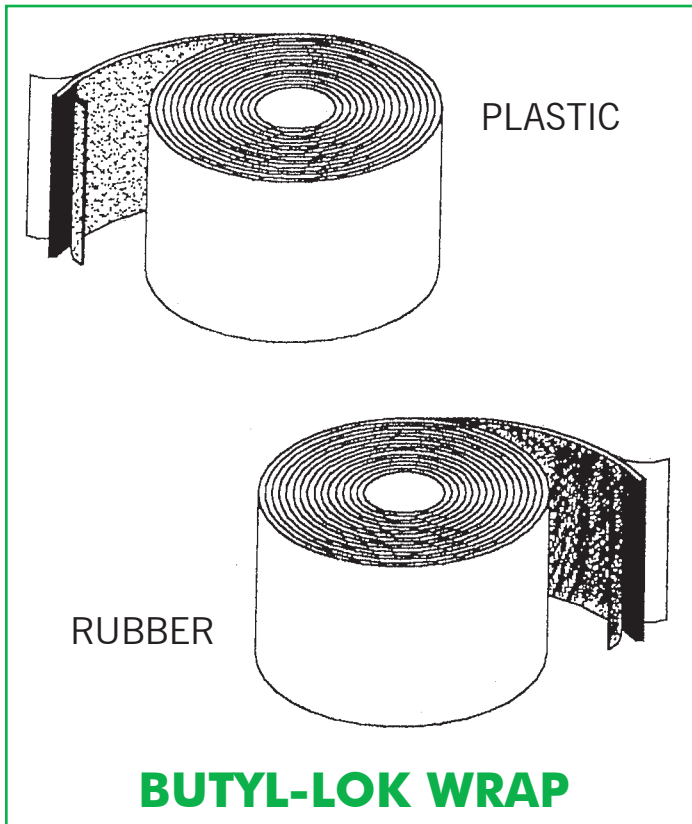


BUTYL SEALANT SYSTEMS

BUTYL-LOK

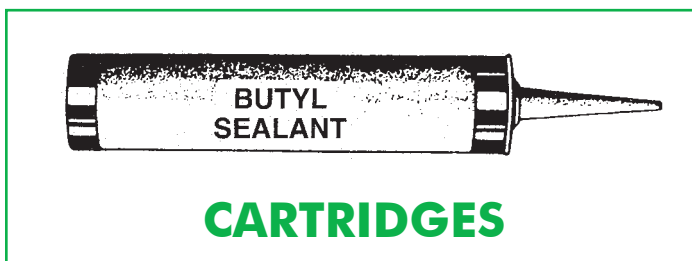
ADHESIVE-PRIMER SYSTEMS

- Water Emulsion Type (non-flammable)
- Solvent Type (flammable)

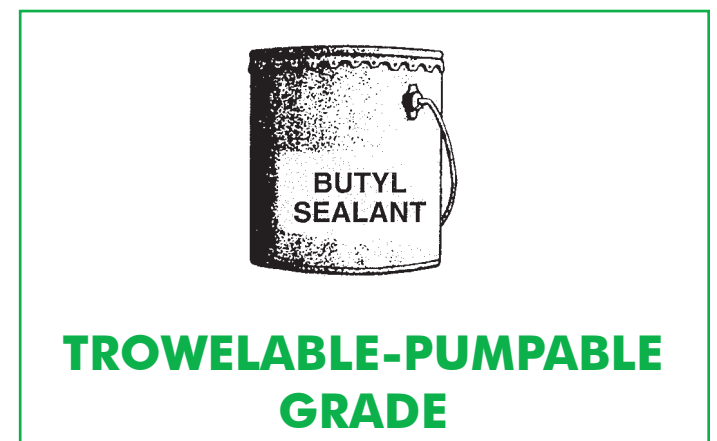


PREFORMED TAPES

STANDARD SIZE IN STOCK
(Custom sizes available)



CARTRIDGES



TROWELABLE-PUMPABLE GRADE



The Company with Connections[®]



BUTYL SEALANT SYSTEMS

EPDM RUBBER BUTYL-LOK WRAP

● EPDM RUBBER BUTYL-LOK WRAP

- Designed to provide a high strength, watertight seal on properly primed concrete surfaces and concrete structure joints
- Extremely flexible and can be formed to fit irregular shapes and surfaces
- EPDM Rubber membrane is laminated to a 25 mil pressure sensitive tape



● BASIC USE

Butyl-LOK is used to wrap below grade joints to create a watertight seal such as:

- Sanitary Manhole Joints
- Grade Ring Joints
- Stormwater Manhole Joints
- Irrigation and Drainage Systems
- Box Culverts
- Elliptical/Arch Pipe
- Architectural Foundations
- Stormwater Treatment Structures
- Stormwater Inlet Structures
- On-Site Treatment Tanks
- Wet Wells
- Concrete Bridge Spans
- Vacuum Test Leak Patches
- Underground Utility Vaults

● APPLICATION RECOMMENDATIONS

All bonding surfaces should be clean, dry, and free of dirt, dust, debris, oils, and other contaminants. Butyl-LOK is designed to be used with CP-100 Concrete Primer. Primer is recommended. Always allow primer to dry to the touch before applying tape (typically 10-15 minutes depending on ambient conditions). Once the primer is dry immediately install the sealant tape. Do not stretch the sealant tape during application. Overlap the tape ends at least twice the tape width. Roll the tape to ensure good contact with the substrate.

● SAFETY

Prior to working with this or any adhesive product consult product label and Safety Data Sheet (SDS) for necessary health and safety precautions.

● LIMITATIONS

Butyl-LOK should not be used in conditions where it may come into direct contact with petroleum distillates such as gasoline, oil, kerosene, diesel oil or other chemical solvents. Clean and dry surfaces are necessary for proper installation of this product.

● FEATURES AND BENEFITS

- Broad Temperature Range Performance
- High Tack and Permanently Flexible
- Fast Installation
- Long-Term Durability
- Excellent Adhesion and Formability
- Saves Time and Labor

● PACKAGING

Available in 6", 9", and 12" widths. Contact your A-LOK representative for other sizes.

● STORAGE AND SHELF LIFE

Store material in original unopened packaging at temperatures between 4°C to 43°C (40°F to 110°F). Shelf life is 12 months when stored as recommended.

EPDM Rubber Butyl-LOK Technical Data		
Property	Typical Value	Test Method
Base Polymer (Membrane & Tape)	EPDM	
Color (Membrane & Tape)	Black	Visual
Tensile Strength	900psi min.	ASTM D 412 Die C
Elongation	300%	ASTM D 412
Peel Strength	10 pli @ 21°C (70°F)	ASTM D 413
Shear Strength	20 psi @ 21°C (70°F)	ASTM D 816
Brittleness Temperature	-46°C (-50°F)	ASTM D 2137
Service Temperature	-45°C to 65°C (-50°F to 150°F)	

NOTE: The foregoing information is published as general information only. The listed properties and performance characteristics are approximate values and are not to be interpreted as manufacturing specifications.

CAUTION: All statements and technical information in this document are based on tests or data that A-LOK believes is reliable. However, A-LOK does not warrant or guarantee the accuracy or completeness of this information. The user has sole knowledge and control of factors that can affect the performance of A-LOK's products in the user's intended application. It is the user's responsibility to conduct tests to determine the compatibility of A-LOK's product with the design, structure, and materials of the user's end product and the suitability of Royal's product for the user's method of application and intended use. The user assumes all risk and liability arising out of such use.



The Company with Connections



BUTYL SEALANT SYSTEMS

POLYETHYLENE BUTYL-LOK WRAP

POLYETHYLENE BUTYL-LOK WRAP

- Designed to provide an economical, high strength, watertight seal on properly primed concrete surfaces and concrete structure joints
- Extremely flexible and can be formed to fit irregular shapes and surfaces
- Polyethylene Plastic film is laminated to a 50 mil pressure sensitive tape



BASIC USE

Butyl-LOK is used to wrap below grade joints to create a watertight seal such as:

- Sanitary Manhole Joints
- Stormwater Treatment Structures
- Grade Ring Joints
- Stormwater Inlet Structures
- Stormwater Manhole Joints
- On-Site Treatment Tanks
- Irrigation and Drainage Systems
- Wet Wells
- Box Culverts
- Concrete Bridge Spans
- Elliptical/Arch Pipe
- Vacuum Test Leak Patches
- Architectural Foundations
- Underground Utility Vaults

APPLICATION RECOMMENDATIONS

All bonding surfaces should be clean, dry, and free of dirt, dust, debris, oils, and other contaminants. Butyl-LOK is designed to be used with CP-100 Concrete Primer. Primer is recommended. Always allow primer to dry to touch before applying tape (typically 10-15 minutes, will depend on ambient conditions). Once the primer is dry immediately install the sealant tape. Do not stretch the sealant tape during application. Overlap the tape ends at least twice the tape width. Roll the tape to ensure good contact with the substrate.

SAFETY

Prior to working with this or any adhesive product consult product label and Safety Data Sheet (SDS) for necessary health and safety precautions.

FEATURES AND BENEFITS

- Broad Temperature Range Performance
- High Tack and Permanently Flexible
- Fast Installation
- Long-Term Durability
- Excellent Adhesion and Formability
- Saves Time and Labor

PACKAGING

Available in 6", 9", and 12" widths. Contact your A-LOK representative for additional sizes.

STORAGE AND SHELF LIFE

Store material in original unopened packaging at temperatures between 4°C to 43°C (40°F to 110°F). Shelf life is 12 months when stored as recommended.

LIMITATIONS

Butyl-LOK should not be used in conditions where it may come into direct contact with petroleum distillates such as gasoline, oil, kerosene, diesel oil or other chemical solvents. Clean and dry surfaces are necessary for proper installation of this product.

Polyethylene Butyl-LOK Technical Data		
Property	Typical Value	Test Method
Base Polymer	Butyl	
Color	Black	Visual
Brittleness Temperature	-46°C (-50°F)	ASTM D 2137
Service Temperature	45°C to 65°C (-50°F to 150°F)	

NOTE: The foregoing information is published as general information only. The listed properties and performance characteristics are approximate values and are not to be interpreted as manufacturing specifications.

CAUTION: All statements and technical information in this document are based on tests or data that A-LOK believes is reliable. However, A-LOK does not warrant or guarantee the accuracy or completeness of this information. The user has sole knowledge and control of factors that can affect the performance of A-LOK's products in the user's intended application. It is the user's responsibility to conduct tests to determine the compatibility of A-LOK's product with the design, structure, and materials of the user's end product and the suitability of Royal's product for the user's method of application and intended use. The user assumes all risk and liability arising out of such use.

● GENERAL PRODUCT DESCRIPTION

BUTYL-LOK sealant systems are custom engineered and manufactured to comply with current standards and specifications required by the Federal, State and local regulatory agencies for use by the precast concrete industry and its contractors.

BUTYL-LOK sealants are supplied in ready-to-apply forms for all weather installations and conditions. Specific applications are:

- SANITARY AND STORM SEWER MANHOLES
- PIPE (Round, Oval, Flatbase, Elliptical and Arch types)
- BOX CULVERTS
- UTILITY VAULTS
- BURIAL VAULTS
- SEPTIC TANKS AND SEWAGE TREATMENT PLANTS
- WET WELLS
- PRECAST CONCRETE WALL PANEL SYSTEMS

● KEY ADVANTAGES

BUTYL-LOK sealants remain permanently flexible and form permanent bonds to a wide variety of substrates including concrete, metals and plastics. These products are designed not to shrink or oxidize and have excellent resistance to environmental temperature extremes, acid and alkaline conditions. Adhesion and cohesion actually improves after joint has been formed and placed in service.

● SURFACE PREPARATION

Joint surfaces should be clean and dry. Due to the high adhesive quality of BUTYL-LOK, priming of the joint surfaces is not normally required. However, should wet or unusual application conditions exist, it is recommended that either BUTYL-LOK Emulsion (non-flam) or Solvent (flammable) Adhesive Primer be coated on the joint surface and allowed to dry a minimum of 10 minutes before application of joint sealant.

● APPLICATION

BUTYL-LOK bonds instantly to joint surfaces and to itself. Always butt ends of preformed sealant together — never overlap. Leave protective release paper on sealant during application and remove only after structure is ready for coupling. The joint should then be coupled with sufficient pressure for proper joint completion. The resulting annular space after structure is properly coupled, determines the volume (cross-section size) of BUTYL-LOK required.

● PRODUCT REFERENCES

BUTYL-LOK meets or exceeds all basic requirements of Federal Specification *SS-S-21 0-A
*AASHTO M-198 and ASTM C-990.

*NOTE: Meets all aspects with exception of flash point and fire point.

● CHEMICAL COMPOSITION

	TEST METHOD	REQUIREMENTS	BUTYL-LOK
Butyl Rubber-Hydrocarbon (% by wt.)	ASTM D-297	50-70	58%
Inert Mineral Filler (% by wt.)	SS-S-210-A	30-50	42.0%
Volatile Matter (% by wt.)	ASTM D-6	2.0 Max.	1.0%

*NOTE: Contains no asbestos fibers or asphaltics.

● PHYSICAL PROPERTIES

	TEST METHOD	REQUIREMENTS	BUTYL-LOK
Specific Gravity @ 77°F.	ASTM D-71	1.15-1.50	1.25-1.35
Ductility @ 77°F.	ASTM D-113	5.0 Min.	6.0 CM
Cone Penetration @ 77°F.	ASTM D-217	50-100	55-80
Flash Point C.O.C. (°F.)	ASTM D-92	350 Min.	375
Accelerated Aging (Mechanical Oven - 4 hours @ 212°F.)			Maintained 99+% Solids (Flexibility not affected)
UV Resistance (Direct FL Exposure - 365 days)			No Visible Damage
Elongation Initial @ 77°F.			300% Min.
Two Weeks @ 195°F.			300% Min.
Two Weeks - Total Water Immersion			300% Min.
Flow Resistance (1" wide overhead joint exposed to 135°F. for 7 days)			No Flow
Storage Life			Indefinite
Application Temp. Range			0 to 120°F.
Service Temp. Range			-40° to 250°F.

● CHEMICAL RESISTANCE

(Total Immersion 112 Days)	REQUIREMENTS	BUTYL-LOK
Sulfuric Acid	20%	No Visible Damage
Sodium Hydroxide	5%	No Visible Damage
Ammonium Hydroxide	5%	No Visible Damage
Nitric Acid	1%	No Visible Damage
Ferric Chloride	1%	No Visible Damage
Soap	0.1%	No Visible Damage
Detergent (linear alkyl bensyl sulfonate)	0.1%	No Visible Damage

BUTYL-LOK SEALANT SYSTEMS

PREFORMED TAPES

PRODUCT NO.	DIA. EQUIVALENT	CROSS SECTION SIZE	ROLL LENGTH	ROLLS PER CARTON	FEET PER CARTON	CARTON WEIGHT	CARTONS PER PALLET*
FS-3050	1/2"	.45" x .45"	21.75'	12	261	35 lbs.	40
FS-3075	3/4"	.675" x .675"	14.5'	8	116	33 lbs.	40
FS-3100	1"	.89" x .89"	14.5'	6	87	42 lbs.	40
FS-3125	1-1/4"	1.0" x 1.123"	14.5'	5	72.5	55 lbs.	40
FS-3150	1-1/2"	1.187" x 1.5"	10.75'	4	43	47 lbs.	40
FS-3200	2"	1.875" x 1.675"	7.50'	4	28	52 lbs.	40

DURA-PLATE™ BUTYL-LOK SEALANT

MT-320		1/2" x 1-1/2"	14'6"	4	58	28 lbs.	45
MT-329		3/8" x 4-1/2"	14'6"	2	29	30.3 lbs.	40
MT-329-A		5/8" x 3-1/2"	14'6"	2	29	38.2 lbs.	40
MT-329-B		3/4" x 3-1/2"	14'6"	2	29	45.5 lbs.	40

FR 500 DURA-PLATE™ LAP SEALANT 1/10 Gallon Cartridges

CT-0335 LAP SEALANT-LS600 (WHITE) 1/10 Gallon Cartridges – Packaged 10 tubes/case – 120 cases/pallet

*Note: All pallets shrink wrapped – suitable for outside storage.

Custom sizes available upon request – Call us with your special requirements.

BK-0069 TROWELABLE – PUMPABLE GUIDE Available in 5 gallon pails
 R-900 1/10 Gallon CARTRIDGES (BLACK) Packaged 10 tubes/case – 120 cases/pallet
 CN-0189 ADHESIVE-PRIMER: SOLVENT TYPE (flammable) 1 Gallon pails – 6 per case (9% WASH)

HORIZONTAL JOINTS

PIPE SIZE (ID)	RECOMMENDED SIZES		
	1/64" TO 1/4**	5/16" TO 1/2**	9/16" TO 11/16**
12"	1/2"	3/4"	1"
15"	1/2"	3/4"	1"
18"	1/2"	3/4"	1"
21"	1/2"	3/4"	1"
24"	3/4"	1"	1-1/4"
27"	3/4"	1"	1-1/4"
30"	3/4"	1"	1-1/4"
33"	3/4"	1"	1-1/4"
36"	3/4"	1"	1-1/4"
39"	1"	1-1/4"	1-1/4"
42"	1"	1-1/4"	1-1/2"
45"	1"	1-1/4"	1-1/2"
48"	1"	1-1/4"	1-1/2"
54"	1-1/4"	1-1/2"	1-3/4"
60"	1-1/4"	1-1/2"	1-3/4"
66"	1-1/4"	1-1/2"	1-3/4"
72"	1-1/4"	1-1/2"	2"
78"	1-1/4"	1-1/2"	2"
84"	1-1/2"	1-3/4"	2"
90"	1-1/2"	1-3/4"	2"
96"	1-1/2"	1-3/4"	2"
102"	1-1/2"	2"	2"
108"	1-1/2"	2"	2"

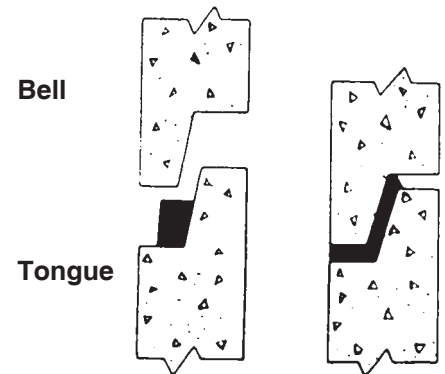
VERTICAL JOINTS

ID OF STRUCTURE	RECOMMENDED SIZES		
	1/64" TO 1/4**	5/16" TO 1/2**	9/16" TO 11/16**
42"	3/4"	1"	1-1/4"
48"	3/4"	1"	1-1/4"
54"	1"	1"	1-1/2"
60"	1"	1-1/2"	1-1/2"
66"	1"	1-1/2"	1-1/2"
72"	1"	1-1/2"	1-1/2"
84"	1"	1-1/2"	1-3/4"
96"	1"	1-1/2"	1-3/4"

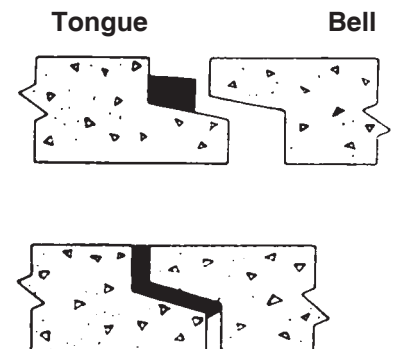
*The annular space of the joint is calculated by subtracting the tongue O.D. from the bell I.D. and dividing by 2.

TYPICAL JOINT CONFIGURATIONS

VERTICAL INSTALLATION



HORIZONTAL INSTALLATION



BUTYL-LOK WRAP

BUTYL-LOK WRAP is an extruded Butyl adhesive tape, designed to provide high strength, watertight seals on properly primed concrete surfaces and joints of any kind. The Butyl compound is soft, tacky and bonded to either a Plastic backing of an E.P.D.M. Rubber backing. Both kinds of tape are wound in rolls on a release liner for easy application.

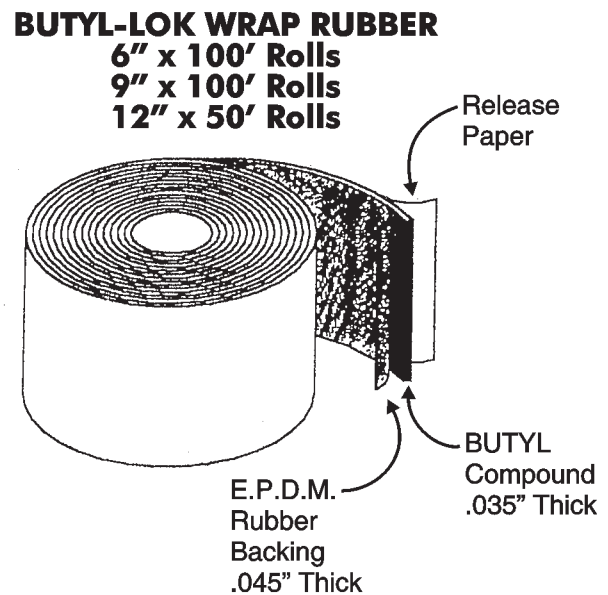
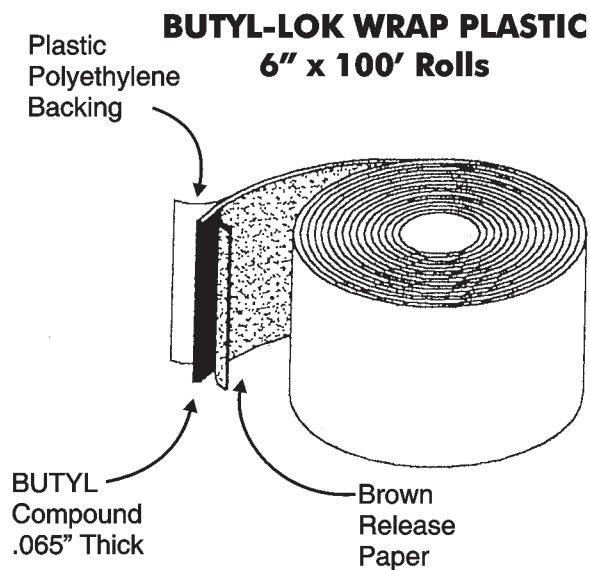
SUGGESTED APPLICATIONS FOR BUTYL-LOK WRAP

- Any external concrete joints:
 - Manhole Joints
 - Arch Pipe Joints
 - Round Pipe Joints
 - Septic Joints
 - Box Culvert Joints
 - Burial Vault Joints
 - Elliptical Pipe Joints
 - Grade Ring Joints
- Concrete Bridge Spans
- New construction, repair or rehabilitation
- Seals vacuum test leaks
- Protective pipe wrap in corrosive conditions

ADVANTAGES OF BUTYL-LOK WRAP

- Prevents or stops infiltration
- Economical sealing solution
- Easy application
- Excellent initial adhesion and strength
- Withstands constant stress at elevated temperatures
- Excellent protection against corrosion
- Readily available

AVAILABLE IN THE FOLLOWING SIZES:



BUTYL-LOK WRAP is designed to be used with No. 4 primer, and should not be stretched during installation.

R-900

Rubber Adhesive/Sealant

Product Data Sheet

Description:

R-900 is a uniquely formulated one-part butyl adhesive/sealant designed to have excellent resistance to environmental temperature extremes and acid / alkaline conditions.

R-900 forms a permanent flexible bond to a wide variety of substrates including brick, concrete, metals, and plastics. It skins over very rapidly through solvent release and cures to a tape-like consistency.

R-900 is approved to General Motors Engineering Standard 9985950.

Features
Excellent Moisture Resistance
Resistant to Most Acidic Solutions
Resistant to Most Alkaline Solutions
Will Not Attack Polystyrene Foam

Packaging:

11 ounce cartridges, 5 gallon pails or 55 gallon drums

Instructions:

Apply with a standard caulking gun from tubes or trowel on as needed from pails.

Limitations:

All surfaces to be sealed or bonded must be clean and dry. Primer may be required for certain surfaces.

Clean-Up:

Use Mineral Spirits or VM&P Naphtha.

Technical Data		
Physical Properties:		
	Typical Values	Test Method
Color	Black	Visual
Specific Gravity	1.16	ASTM D 1475
Weight per Gallon	9.7 lbs.	ASTM D 1475
Solids Content	75.0%	ASTM C 681
Sag or Flow	0.05" maximum	ASTM D 2202
Press-Flow Viscosity	55 seconds	ASTM D 2452
Flash Point	52°F (11°C)	ASTM D 56
VOC Content	314 grams/liter	ASTM D 3960
Shear Strength	25 psi	ASTM D 1002
Tensile Strength	25 psi	ASTM D 638
Elongation	140%	ASTM D 638
Shore A Hardness	8 – 12	ASTM C 661
Shore OO Hardness	50 – 55	ASTM C 661
Resistance to 5% Nitric, Sulfuric and Hydrochloric Acid	Excellent – no effect after 30 day immersion	ASTM D 545
Application Properties:		
Service Temperature	-40°F to +250°F	ASTM D 3359
Application Temp.:	20°F to 120°F	ASTM C 603
Storage Temperature:	65°F to 110°F	ASTM D 1337
Shelf Life:	1 year minimum	ASTM D 1337
NOTE: The foregoing information is published as general information only. The listed properties and performance characteristics are approximate values and are not part of the product specification.		

Health & Safety:

Users must follow individual product data sheet and Material Safety Data Sheets (M.S.D.S.) for health and safety precautions. Always use protective eyewear.

Availability/Cost:

Availability and cost can be obtained from your local ADCO Products, Inc. representative or ADCO distributor.

R-900

1/06

LIMITED WARRANTY: ADCO Products, Inc. ("ADCO") warrants its products to meet its published physical properties at the time of sale when tested according to ADCO's standards. If a product is proven to be defective, ADCO will, at its option, replace the defective product or refund the purchase price. ADCO shall not be liable for damages in excess of the purchase price. Any and all claims that a product is defective must be made in writing within thirty (30) days after discovery of the defect and in no event more than one (1) year after the original shipment of the product by ADCO. Failure to notify ADCO of any claim constitutes an irrevocable waiver of such claim regardless of the circumstances. THIS LIMITED WARRANTY IS THE USER'S SOLE AND EXCLUSIVE REMEDY (AND THE SOLE AND EXCLUSIVE LIABILITY OF ADCO) AND IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, WRITTEN OR ORAL, STATUTORY, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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1. Product and Company Identification

Material name R-900
Revision date 08-18-2011
Version # 01
CAS # Mixture
Product use Adhesive.
Manufacturer/Supplier ADCO Products
 4401 Page Ave, P.O. Box 457
 Michigan Center, MI 49254
 US
 General Information: 517-764-0334
Emergency 24-Hour Emergency: Chemtrec 1-800-424-9300

2. Hazards Identification

Physical state Solid.
Appearance Black paste.
Emergency overview WARNING

 Flammable solid.
 Causes skin and eye irritation. In high concentrations, vapors may be irritating to the respiratory system.
OSHA regulatory status This product is hazardous according to OSHA 29 CFR 1910.1200.
Potential health effects
Eyes Causes eye irritation.
Skin Causes skin irritation.
Inhalation In high concentrations, vapors may be irritating to the respiratory system.
Ingestion No harmful effects expected in amounts likely to be ingested by accident.
Target organs Eyes. Skin. Lung.
Potential environmental effects Not expected to be harmful to aquatic organisms.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Solvent naphtha (petroleum), light aliph.	64742-89-8	20 - 40
Kaolin	1332-58-7	<25
Carbon black	1333-86-4	<10
Silicon dioxide	7631-86-9	<10
Talc	14807-96-6	<10
Quartz	14808-60-7	<1
Titanium dioxide	13463-67-7	<0.5

Composition comments Any pigments or fillers in this product which may be considered "Hazardous" are potentially hazardous only if inhaled as an air-borne dust. Exposure by these ingredients as used in sealants, putties, bedding compounds and other non-sprayable products is highly unlikely. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures
Eye contact Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention promptly if symptoms occur after washing.

Skin contact	Wash off with soap and plenty of water. Get medical attention promptly if symptoms occur after washing.
Inhalation	If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Ingestion	Seek medical advice.

5. Fire Fighting Measures

Flammable properties	Flammable solid.
Extinguishing media	
Suitable extinguishing media	Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Fire fighting equipment/instructions	Self-contained breathing apparatus operated in positive pressure mode and full protective clothing must be worn in case of fire.
Specific methods	Use water spray to cool unopened containers.
Hazardous combustion products	Carbon oxides. Silicon oxides. Nitrogen oxides.

6. Accidental Release Measures

Personal precautions	Wear appropriate personal protective equipment (See Section 8).
Methods for cleaning up	Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.
	Large Spills: Flush area with water. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

7. Handling and Storage

Handling	Keep away from heat, sparks and open flame. Wear appropriate personal protective equipment (See Section 8).
Storage	Keep away from heat, sparks, and flame. Keep container tightly closed in a cool, well-ventilated place.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Carbon black (1333-86-4)	TWA	3 mg/m3	Inhalable fraction.
Kaolin (1332-58-7)	TWA	2 mg/m3	Respirable fraction.
Quartz (14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Talc (14807-96-6)	TWA	2 mg/m3	Respirable fraction.
Titanium dioxide (13463-67-7)	TWA	10 mg/m3	

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Carbon black (1333-86-4)	PEL	3.5 mg/m3	
Kaolin (1332-58-7)	PEL	15 mg/m3	Total dust.
		5 mg/m3	Respirable fraction.
Titanium dioxide (13463-67-7)	PEL	15 mg/m3	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Quartz (14808-60-7)	TWA	0.1 mg/m3	Respirable.
		0.3 mg/m3	Total dust.
		2.4 mppcf	Respirable.
		0.8 mg/m3	
Silicon dioxide (7631-86-9)	TWA	20 mppcf	
		0.1 mg/m3	Respirable.
Talc (14807-96-6)	TWA	0.3 mg/m3	Total dust.
		2.4 mppcf	Respirable.
		20 mppcf	

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Carbon black (1333-86-4)	TWA	3.5 mg/m3	
Kaolin (1332-58-7)	TWA	2 mg/m3	Respirable.
Quartz (14808-60-7)	TWA	0.025 mg/m3	Respirable particles.
Talc (14807-96-6)	TWA	2 mg/m3	Respirable particles.
Titanium dioxide (13463-67-7)	TWA	10 mg/m3	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Carbon black (1333-86-4)	TWA	3.5 mg/m3	
Kaolin (1332-58-7)	TWA	2 mg/m3	Respirable.
Quartz (14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Silicon dioxide (7631-86-9)	TWA	1.5 mg/m3	Respirable.
		4 mg/m3	Total
Talc (14807-96-6)	TWA	2 mg/m3	Respirable.
Titanium dioxide (13463-67-7)	TWA	10 mg/m3	Total dust.
		3 mg/m3	Respirable fraction.

Canada. Ontario OELs. (Ministry of Labor - Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Carbon black (1333-86-4)	TWA	3.5 mg/m3	
Kaolin (1332-58-7)	TWA	2 mg/m3	Respirable.
Quartz (14808-60-7)	TWA	0.1 mg/m3	Respirable fraction.
Silicon dioxide (7631-86-9)	TWA	10 mg/m3	
Talc (14807-96-6)	TWA	2 mg/m3	Respirable.
		2 ppm	
Titanium dioxide (13463-67-7)	TWA	10 mg/m3	Total dust.

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Carbon black (1333-86-4)	TWA	3.5 mg/m3	
Kaolin (1332-58-7)	TWA	5 mg/m3	Respirable dust.
Quartz (14808-60-7)	TWA	0.1 mg/m3	Respirable dust.
Silicon dioxide (7631-86-9)	TWA	6 mg/m3	Respirable dust.
Talc (14807-96-6)	TWA	3 mg/m3	Respirable dust.
Titanium dioxide (13463-67-7)	TWA	10 mg/m3	Total dust.

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Carbon black (1333-86-4)	TWA	3.5 mg/m3
	STEL	7 mg/m3
Kaolin (1332-58-7)	TWA	10 mg/m3
	STEL	20 mg/m3
Quartz (14808-60-7)	TWA	0.1 mg/m3
Talc (14807-96-6)	TWA	2 fibers/cm3
Titanium dioxide (13463-67-7)	TWA	10 mg/m3
	STEL	20 mg/m3

Engineering controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment**Eye / face protection**

Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

Skin protection

Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure. Contact glove manufacturer for specific information.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance	Black paste.
Color	Black.
Odor	Solvent odor.
Odor threshold	Not available.
Physical state	Solid.
Form	Paste.
pH	Not available.
Melting point	Not available.
Freezing point	Not available.
Boiling point	240 - 285 °F (115.6 - 140.6 °C)
Flash point	48 °F (8.9 °C) Tag Closed Cup
Evaporation rate	9.2 (n-butyl acetate = 1)
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	0.9 %
Vapor pressure	45 mm Hg at 78°F, 26°C
Vapor density	3.8
Specific gravity	1.22
Solubility (water)	0.5 %
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
VOC	3.99 lb/gal
Percent volatile	30 (Maximum)

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Keep away from heat, sparks, and flame.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Acute effects	Causes skin and eye irritation. In high concentrations, vapors may be irritating to the respiratory system.
Sensitization	No sensitizing effects known.
Carcinogenicity	Due to the form of the product, exposure to the potentially carcinogenic components is not expected.

ACGIH Carcinogens

Carbon black (CAS 1333-86-4)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Kaolin (CAS 1332-58-7)	A4 Not classifiable as a human carcinogen.
Quartz (CAS 14808-60-7)	A2 Suspected human carcinogen.
Talc (CAS 14807-96-6)	A4 Not classifiable as a human carcinogen.
Titanium dioxide (CAS 13463-67-7)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon black (CAS 1333-86-4)	2B Possibly carcinogenic to humans.
Quartz (CAS 14808-60-7)	1 Carcinogenic to humans.
Silicon dioxide (CAS 7631-86-9)	3 Not classifiable as to carcinogenicity to humans.
Talc (CAS 14807-96-6)	2B Possibly carcinogenic to humans.
	3 Not classifiable as to carcinogenicity to humans.
Titanium dioxide (CAS 13463-67-7)	2B Possibly carcinogenic to humans.

US NTP Report on Carcinogens: Known carcinogen

Quartz (CAS 14808-60-7)	Known carcinogen.
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12. Ecological Information

Ecotoxicity	Not expected to be harmful to aquatic organisms.
Persistence and degradability	No data available.
Bioaccumulation / Accumulation	No data available.
Partition coefficient (n-octanol/water)	No data available.
Mobility in environmental media	No data available.

13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 °F
Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. When this product as supplied is to be discarded as waste, it may meet the definition of a RCRA waste under 40 CFR 261.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Basic shipping requirements:

UN number	UN1133
Proper shipping name	Adhesives, containing a flammable liquid
Hazard class	3
Packing group	II
Labels required	3

Additional information:

Special provisions	149, B52, IB2, T4, TP1, TP8
Packaging exceptions	150
Packaging non bulk	173
Packaging bulk	242

IATA

Basic shipping requirements:

UN number	1133
Proper shipping name	Adhesives containing flammable liquid
Hazard class	3
Packing group	II

Additional information:

ERG code	3L
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IMDG

Basic shipping requirements:

UN number	1133
Proper shipping name	ADHESIVES containing flammable liquid
Hazard class	3
Packing group	II
EmS No.	F-E, S-D

TDG**Basic shipping requirements:**

Proper shipping name ADHESIVES containing flammable liquid
Hazard class 3
UN number UN1133
Packing group II

15. Regulatory Information

US federal regulations This product is hazardous according to OSHA 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification(40 CFR 707, Subpt. D)

Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - Yes
 Pressure Hazard - No
 Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A) No

Section 311/312 (40 CFR 370) Yes

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15) Not controlled

WHMIS status Controlled

WHMIS classification B4 - Flammable/Combustible
 D2B - Other Toxic Effects-TOXIC

WHMIS labeling**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations WARNING: This product contains chemicals known to the State of California to cause cancer.

US - California Hazardous Substances (Director's): Listed substance

Carbon black (CAS 1333-86-4) Listed.
 Silicon dioxide (CAS 7631-86-9) Listed.
 Talc (CAS 14807-96-6) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Carbon black (CAS 1333-86-4) Listed.
Isoprene (CAS 78-79-5) Listed.
Quartz (CAS 14808-60-7) Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Carbon black (CAS 1333-86-4) Listed: February 21, 2003 Carcinogenic.
Isoprene (CAS 78-79-5) Listed: May 1, 1996 Carcinogenic.
Quartz (CAS 14808-60-7) Listed: October 1, 1988 Carcinogenic.

US - Massachusetts RTK - Substance: Listed substance

Carbon black (CAS 1333-86-4) Listed.
Kaolin (CAS 1332-58-7) Listed.
Quartz (CAS 14808-60-7) Listed.
Silicon dioxide (CAS 7631-86-9) Listed.
Talc (CAS 14807-96-6) Listed.
Titanium dioxide (CAS 13463-67-7) Listed.

US - New Jersey RTK - Substances: Listed substance

Carbon black (CAS 1333-86-4) Listed.
Kaolin (CAS 1332-58-7) Listed.
Quartz (CAS 14808-60-7) Listed.
Silicon dioxide (CAS 7631-86-9) Listed.
Talc (CAS 14807-96-6) Listed.
Titanium dioxide (CAS 13463-67-7) Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Carbon black (CAS 1333-86-4) Listed.
Kaolin (CAS 1332-58-7) Listed.
Quartz (CAS 14808-60-7) Listed.
Silicon dioxide (CAS 7631-86-9) Listed.
Talc (CAS 14807-96-6) Listed.
Titanium dioxide (CAS 13463-67-7) Listed.

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 2*
Flammability: 3
Physical hazard: 0

NFPA ratings

Health: 2
Flammability: 3
Instability: 0

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Issue date

08-18-2011

1. Product and Company Identification

Material name LS-600W Edge Sealant
Version # 02
Issue date 07-12-2011
Revision date 09-20-2012
Supersedes date 08-29-2012
CAS # Mixture
Product use Adhesive.
Manufacturer/Supplier ADCO Products
 4401 Page Ave, P.O. Box 457
 Michigan Center, MI 49254
 US

General Information: 517-764-0334

Emergency 24-Hour Emergency: Chemtrec 1-800-424-9300

2. Hazards Identification

Physical state Solid.
Appearance White paste.
Emergency overview WARNING

Flammable solid.
 Causes skin and eye irritation. In high concentrations, vapors may be irritating to the respiratory system.

OSHA regulatory status This product is hazardous according to OSHA 29 CFR 1910.1200.

Potential health effects

Eyes Causes eye irritation.

Skin Causes skin irritation.

Inhalation In high concentrations, vapors may be irritating to the respiratory system.

Ingestion No harmful effects expected in amounts likely to be ingested by accident.

Target organs Eyes. Skin. Lung.

Potential environmental effects Not expected to be harmful to aquatic organisms.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Solvent naphtha (petroleum), light aliph.	64742-89-8	30-60
Limestone	1317-65-3	10-30
Aluminium hydroxide	21645-51-2	1-5
Silicon dioxide	7631-86-9	1-5
Titanium dioxide	13463-67-7	1-5
Quartz	14808-60-7	0.1-1
Rosin	8050-09-7	0.1-1

Composition comments Any pigments or fillers in this product which may be considered "Hazardous" are potentially hazardous only if inhaled as an air-borne dust. Exposure by these ingredients as used in sealants, putties, bedding compounds and other non-sprayable products is highly unlikely. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye contact	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention promptly if symptoms occur after washing.
Skin contact	Wash off with soap and plenty of water. Get medical attention promptly if symptoms occur after washing.
Inhalation	If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Ingestion	Seek medical advice.

5. Fire Fighting Measures

Flammable properties	Flammable solid.
Extinguishing media	
Suitable extinguishing media	Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Fire fighting equipment/instructions	Self-contained breathing apparatus operated in positive pressure mode and full protective clothing must be worn in case of fire.
Specific methods	Use water spray to cool unopened containers. Move container from fire area if it can be done without risk.
Hazardous combustion products	Carbon oxides. Silicon oxides. Nitrogen oxides.

6. Accidental Release Measures

Personal precautions	Wear appropriate personal protective equipment (See Section 8).
Methods for cleaning up	Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Large Spills: Flush area with water. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

7. Handling and Storage

Handling	Keep away from heat, sparks and open flame. Wear appropriate personal protective equipment (See Section 8).
Storage	Keep away from heat, sparks, and flame. Keep container tightly closed in a cool, well-ventilated place.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Aluminium hydroxide (CAS 21645-51-2)	TWA	1 mg/m ³	Respirable fraction.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Limestone (CAS 1317-65-3)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Silicon dioxide (CAS 7631-86-9)	TWA	0.8 mg/m ³
		20 mppcf

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Limestone (CAS 1317-65-3)	TWA	10 mg/m ³

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Aluminium hydroxide (CAS 21645-51-2)	TWA	1 mg/m3	Respirable.
Limestone (CAS 1317-65-3)	STEL	20 mg/m3	Total dust.
	TWA	3 mg/m3	Respirable fraction.
Silicon dioxide (CAS 7631-86-9)	TWA	10 mg/m3	Total dust.
		4 mg/m3	Total
		1.5 mg/m3	Respirable.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Aluminium hydroxide (CAS 21645-51-2)	TWA	1 mg/m3	Respirable fraction.
Silicon dioxide (CAS 7631-86-9)	TWA	10 mg/m3	

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Limestone (CAS 1317-65-3)	TWA	10 mg/m3	Total dust.
Rosin (CAS 8050-09-7)	TWA	0.1 mg/m3	
Silicon dioxide (CAS 7631-86-9)	TWA	6 mg/m3	Respirable dust.

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Limestone (CAS 1317-65-3)	STEL	20 mg/m3
	TWA	10 mg/m3
Rosin (CAS 8050-09-7)	TWA	0.1 mg/m3

Engineering controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye / face protection

Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

Skin protection

Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure. Contact glove manufacturer for specific information.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance	White paste.
Physical state	Solid.
Form	Paste.
Color	White
Odor	Petroleum solvent.
Odor threshold	Not available.
pH	Not available.
Vapor pressure	2 mm Hg at 78°F, 26°C
Vapor density	3.8
Boiling point	220 °F (104.4 °C)
Melting point/Freezing point	Not available.

Solubility (water)	Negligible
Specific gravity	1.04
Flash point	65 °F (18.3 °C)
Flammability limits in air, upper, % by volume	6.7
Flammability limits in air, lower, % by volume	0.9 %
Auto-ignition temperature	Not available.
Evaporation rate	< 1 (n-butyl acetate = 1)
Percent volatile	40
Partition coefficient (n-octanol/water)	No data available.

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Keep away from heat, sparks, and flame.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Aluminium hydroxide (CAS 21645-51-2)		
Acute		
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
Silicon dioxide (CAS 7631-86-9)		
Acute		
<i>Oral</i>		
LD50	Mouse	> 15000 mg/kg
	Rat	> 22500 mg/kg
Sensitization	No sensitizing effects known.	
ACGIH Sensitizer		
Rosin (CAS 8050-09-7)	Sensitizer.	
Acute effects	Causes skin and eye irritation. In high concentrations, vapors may be irritating to the respiratory system.	
Carcinogenicity	Due to the form of the product, exposure to the potentially carcinogenic components is not expected.	
ACGIH Carcinogens		
Aluminium hydroxide (CAS 21645-51-2)	A4 Not classifiable as a human carcinogen.	
Quartz (CAS 14808-60-7)	A2 Suspected human carcinogen.	
Titanium dioxide (CAS 13463-67-7)	A4 Not classifiable as a human carcinogen.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Quartz (CAS 14808-60-7)	1 Carcinogenic to humans.	
Silicon dioxide (CAS 7631-86-9)	3 Not classifiable as to carcinogenicity to humans.	
Titanium dioxide (CAS 13463-67-7)	2B Possibly carcinogenic to humans.	
US NTP Report on Carcinogens: Known carcinogen		
Quartz (CAS 14808-60-7)	Known To Be Human Carcinogen.	

12. Ecological Information

Ecotoxicological data

Components	Species	Test Results
Rosin (CAS 8050-09-7)		
Aquatic		
Crustacea	EC50 Daphnia	4.5 mg/l, 48 Hours
Ecotoxicity	Not expected to be harmful to aquatic organisms.	
Persistence and degradability	No data available.	
Bioaccumulation / Accumulation	No data available.	
Partition coefficient	No data available.	
Mobility in environmental media	No data available.	

13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 °F
Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. When this product as supplied is to be discarded as waste, it may meet the definition of a RCRA waste under 40 CFR 261.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Basic shipping requirements:

UN number	UN1133
Proper shipping name	Adhesives
Hazard class	3
Packing group	II

Additional information:

Special provisions	149, B52, IB2, T4, TP1, TP8
Packaging exceptions	150
Packaging non bulk	173
Packaging bulk	242

IATA

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	3
Packing group	II
ERG code	3L

IMDG

UN number	UN1133
UN proper shipping name	ADHESIVES
Transport hazard class(es)	3
Packing group	II
EmS No.	F-E, S-D

TDG

Proper shipping name	ADHESIVES
Hazard class	3
UN number	UN1133
Packing group	II

15. Regulatory Information

US federal regulations This product is hazardous according to OSHA 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
 Immediate Hazard - Yes
 Delayed Hazard - No
 Fire Hazard - Yes
 Pressure Hazard - No
 Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A)
 No

Section 311/312 (40 CFR 370)
 Yes

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)
 Not controlled

WHMIS status
 Controlled

WHMIS classification
 B4 - Flammable Solids
 D2B - Other Toxic Effects-TOXIC

WHMIS labeling**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations WARNING: This product contains chemicals known to the State of California to cause cancer.

US - California Hazardous Substances (Director's): Listed substance

Rosin (CAS 8050-09-7) Listed.
 Silicon dioxide (CAS 7631-86-9) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Quartz (CAS 14808-60-7) Listed.
 Titanium dioxide (CAS 13463-67-7) Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Quartz (CAS 14808-60-7) Listed: October 1, 1988 Carcinogenic.
 Titanium dioxide (CAS 13463-67-7) Listed: September 2, 2011 Carcinogenic.

US - New Jersey RTK - Substances: Listed substance

Limestone (CAS 1317-65-3) Listed.
 Quartz (CAS 14808-60-7) Listed.
 Silicon dioxide (CAS 7631-86-9) Listed.
 Titanium dioxide (CAS 13463-67-7) Listed.

US. Massachusetts RTK - Substance List

Limestone (CAS 1317-65-3) Listed.
 Quartz (CAS 14808-60-7) Listed.
 Silicon dioxide (CAS 7631-86-9) Listed.
 Titanium dioxide (CAS 13463-67-7) Listed.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Limestone (CAS 1317-65-3) Listed.
 Quartz (CAS 14808-60-7) Listed.
 Rosin (CAS 8050-09-7) Listed.

Silicon dioxide (CAS 7631-86-9)
Titanium dioxide (CAS 13463-67-7)

Listed.
Listed.

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 2
Flammability: 3
Physical hazard: 0

NFPA ratings

Health: 2
Flammability: 3
Instability: 0

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.