



Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product/Trade Name: SYLVACOTE™ 4973

Supplier/Manufacturer: Arizona Chemical Company LLC
4600 Touchton Road East, Suite 1200
Jacksonville, FL 32246 US
877-273-2267
Phone 904-928-8700

EMERGENCY PHONE: Chemtrec: 800-424-9300 (transportation and medical)

Chemical Name: Modified Rosin Ester

Section 2. Hazards Identification

**EMERGENCY OVERVIEW:
WARNING!**

**MAY CAUSE ALLERGIC SKIN REACTION.
MAY CAUSE EYE IRRITATION.
PRODUCT MAY FORM EXPLOSIVE DUST/AIR MIXTURE IF HIGH CONCENTRATION OF PRODUCT
DUST IS SUSPENDED IN AIR.
STATIC CHARGES GENERATED BY EMPTYING PACKAGE IN OR NEAR FLAMMABLE VAPOR
MAY CAUSE FLASH FIRE.
VAPORS FROM HEATING MAY CAUSE EYE, SKIN AND RESPIRATORY IRRITATION.**

Avoid prolonged or repeated contact with skin and eyes. Wash thoroughly after handling. Use proper bonding and/or grounding procedures. Use ventilation adequate to exhaust vapors (fumes, dusts, etc.). Avoid breathing dusts or vapors from heated product.

POTENTIAL HEALTH EFFECTS:

Eye: May cause eye irritation. Dust in eyes will cause irritation. Molten material will produce thermal burns. Fumes released during thermal processing may cause eye irritation.

Skin: May cause allergic skin reaction. Molten material will produce thermal burns.

Inhalation: Inhalation of vapors/fumes generated by heating this product may cause respiratory irritation with throat discomfort, coughing or difficulty breathing. Dust may irritate respiratory system.

Ingestion: May cause irritation. Product is not toxic and ingestion is unlikely.

=====
Section 3. Composition and Information on Ingredients
 =====

Name	CASRN/Trade Secret Number	Weight %
Modified Rosin Ester	Proprietary, NJTSRN-6541	>99.5

See section 8 for Exposure Controls/ Exposure Limits/Personal Protection information.

=====
Section 4. First Aid Measures
 =====

Eye Contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If eye irritation persists, get medical advice/attention. If hot product contacts eye, flush with water for at least 15 minutes and seek medical attention immediately.

Skin Contact: Wash immediately with soap and water. Get medical attention if irritation develops or persists. Remove contaminated clothing and shoes. If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn.

Inhalation: If exposed to excessive levels of dust or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

Ingestion: Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

General advice: Get medical attention if symptoms occur. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Notes to Physician: Provide general supportive measures and treat symptomatically. In case of ingestion, the decision of whether or not to induce vomiting should be made by the attending physician. If burn is present, treat as any thermal burn. Removing adhered product from burned skin may compromise the skin integrity and result in infection and/or more severe scarring.

****If victims of chemical over-exposure are taken for medical attention, give a copy of the label or MSDS to the physician/health professional.****

=====
Section 5. Fire and Explosion Data
 =====

General Fire Hazards: Static charges generated by emptying package in or near flammable vapor may cause flash fire. High concentration of airborne dust may form explosive mixture with air. Product is not considered combustible. If heated above its flash point in the presence of air, product can support combustion.

Extinguishing Media: Water spray, dry chemical, carbon dioxide.

Fire Fighting Equipment: Wear suitable protective equipment.

Specific hazards: Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Section 6. Accidental Release Measures

Containment: ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Contain the discharged material.

Clean-up Procedures: Avoid generation of dusts during clean-up. Attempt to reclaim the free product, if this is possible. Collect and dispose of spillage as indicated in section 13 of the MSDS.

Evacuation Procedures: Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed.

Special Instructions: Avoid contact with skin and eyes. Avoid inhalation of dust from spilled material. Keep unnecessary personnel away. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Avoid contact with hot material. Avoid inhalation of fumes from molten product. Wear a dust mask if dust is generated above exposure limits.

Section 7. Handling and Storage

Handling: Avoid contact with skin, eyes or clothing. Do not breathe dust from this material. Observe good industrial hygiene practices. Avoid contact with hot material. Avoid breathing vapor from heated material. Avoid heat, sparks, open flames and other ignition sources. Product may form explosive dust/air mixture if high concentration of product dust is suspended in air. Ground container and transfer equipment to eliminate static electric sparks. Avoid dust formation. Guard against dust accumulation of this material. If product is in dust form, it is classified as a dust explosion hazard class II. Handling of product in dust form should be in accordance with NFPA. Ventilate as needed to control airborne dust. Use explosion-proof ventilation equipment if airborne dust levels are high. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid release to the environment. Follow all MSDS/label precautions even after container is emptied because they may retain product residues.

Storage: Keep away from heat, sparks and open flame. Keep containers closed when not in use. Store at ambient temperature and atmospheric pressure.

Section 8. Exposure Controls/Personal Protection

Observe exposure limits for Particulates (NOC):

ACGIH TLV TWA: 10 mg/m³ Total dust; **ACGIH TLV TWA:** 3 mg/m³ Respirable dust;

OSHA PEL TWA: 15 mg/m³ Total dust; **OSHA PEL TWA:** 5 mg/m³ Respirable dust.

Chemical or Product Name	CASRN/Trade Secret #	OSHA PEL	ACGIH TLV
Modified Rosin Ester	Proprietary, NJTSRN-6541	Not established	Not established

Engineering Controls: Ventilation should be sufficient to effectively remove and prevent build-up of any dust or fumes that may be generated during handling or thermal processing. Use explosion-proof ventilation equipment to stay below exposure limits.

Personal Protection

Eye/Face: Safety glasses. Use tight fitting goggles if dust is generated. Wear a face shield when working with molten material.

Skin: Wear suitable protective clothing and gloves. For molten product, use any type rubber thermal insulating gloves and other clothing as necessary to protect from thermal burns.

Respiratory: Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

General: Handle in accordance with good industrial hygiene and safety practice. Eye wash fountain and emergency showers are recommended. Launder contaminated clothing before reuse.

Section 9. Physical and Chemical Properties

Appearance:	Amber Solid
Odor:	Mild
Odor Threshold:	Not applicable
pH:	Not applicable
Melting point/freezing point:	100-110°C
Initial boiling point and boiling range:	Not applicable
Flash Point:	>201°F (93.89°C) (Setaflash Closed Cup)
Evaporation rate:	Approx. 0 (n-BuAc=1)
Flammability:	Non-flammable
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	<0.001 mm Hg at 20°C (68°F)
Vapor density:	Not applicable
Volatiles:	Negligible
Specific gravity:	1.09 at 25°C/25°C (water=1.00)
Solubility (water):	<0.1% at 25°C (77°F)
Partition coefficient, n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not applicable
Molecular weight:	Not available
Acid Number:	33-43 typical

Section 10. Stability and Reactivity Data

Chemical Stability: Material is stable under normal conditions.

Conditions to Avoid: Strong oxidizing agents. Avoid conditions which create dust. Avoid heat, sparks, open flames and other ignition sources.

Incompatibility: This product may react with strong oxidizing agents.

Hazardous Decomposition

Products: Upon decomposition this product emits acrid dense smoke with carbon dioxide, carbon monoxide, water and other products of combustion.

Hazardous Polymerization: Hazardous polymerization will not occur.

=====
Section 11. Toxicological Information
=====

Toxicity Data: (for chemically similar product)

Acute Toxicity: Oral, LD₅₀ Rat: > 5000 mg/kg
Oral, LD₅₀ Rat: > 2000 mg/kg

Skin Corrosion/Irritation: Negative – 4 Irritation Corrosion - Skin - OECD 404 – New Zealand white rabbit

Eye Irritation: Mild Irritation

Sensitization: Positive - SI >3 of 50% w/w in Local Lymph Node Assay – Mouse
Comments: SI=4.24 May cause sensitization by skin contact. No test data are available for the complete formulated material. The potential health hazards described were based upon a comparison with similar materials.

Carcinogenicity: This product is not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP or OSHA.

Reproductive Toxicity: Negative - In Vitro Mammalian Cell Gene Mutation Test – Mouse
Comments: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Repeat Dose Toxicity: NOEL 1000 mg/kg/day, 28-day Repeat Dose Oral, Rat

=====
Section 12. Ecological Information
=====

Ecotoxicity Data: (for chemically similar product)

Ecotoxicity: EC50 Daphnia Magna: > 100 mg/l 48.00 hours
NOEL Daphnia Magna: 56 mg/l 48.00 hours

Biodegradability: 46% after 28 days. In activated sludge. Not readily biodegradable. OECD 301B

Bioaccumulative Potential: No data available on bioaccumulation.

Section 13. Disposal Considerations

Waste Disposal Waste material must be tested using methods described in 40 CFR 261 to determine if it meets applicable definitions of hazardous waste. No EPA Waste Numbers are applicable for this product's components. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Write to the address listed in Section 1 for information on heavy metals analysis and other disposal information.

Section 14. Transport Information

DOT Classification	Not a DOT controlled materials.
DOT Proper Shipping Name:	None
DOT Identification Number:	None
Packing Group:	None
Hazardous Substances Reportable Quantity:	None
Special Provisions for Transport:	IF SHIPPED OVER 100°C (but less than flash point): DOT Shipping Name: Elevated Temperature Liquid, n.o.s.; Hazard Class: 9; UN/NA Number: UN3257; Packing Group III; bulk shipping requires "HOT" placard
Additional Shipping Information:	Not a Marine Pollutant
International Transportation Regulations:	Not classified

Section 15. Regulatory Information

OSHA: This product is hazardous according to OSHA 29CFR 1910.1200

TSCA: This product is on the Toxic Substances Control Act (TSCA) Inventory.

SARA TITLE III:

SARA Section 302 (EHS) (40 CFR 355 Appendix A): None of this product's components are listed.

SARA Section 311/312 (40 CFR 370.2):

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

SARA Section 313 Toxic Chemicals (40 CFR 372.65): None of this product's components are listed.

CERCLA (40 CFR 302.4): None of this product's components are listed.

International Inventory Status: This product is either listed or exempt from listing on the following inventories: Canada DSL, Europe EINECS, Japan ENCS, Korea ECL, Australia AICS, China IECS and Philippines PICCS.

State Lists: None of this product's components are listed in FL, MA, MN, NJ or PA.

Other: This product contains antioxidant(s).

=====
Section 16. Other Information
 =====

NFPA Ratings: 1 Health 1 Fire 0 Reactivity

HMS Ratings: 1 Health 1 Fire 0 Reactivity

Validation Date: January 19, 2011

Supersedes Date: February 11, 2010

Reason for Revision: New Format. Revised for new hazard - skin sensitization.

Validated By: Lidia M. Krzywanska, Product Regulatory Technologist

Key/Legend:

ACGIH = American Conference of Governmental Industrial Hygienists. ANSI = American National Standards Institute. ASTM = American Society for Testing and Materials. AUC = Area Under Curve. CERCLA = Comprehensive Environmental Response, Compensation and Liability Act. DOT = Department of Transportation. EL = Effective Loading. EPA = Environmental Protection Agency. GHS = Globally Harmonized System of Classification and Labeling of Chemicals. IARC = International Agency for Research on Cancer. LD = Lethal Dose. LL = Lethal Loading. NIOSH = National Institute of Occupational Health and Safety. NOEL = No Observed Effect level. NTP = National Toxicology Program. OSHA = Occupational Safety and Health Administration. PEL = Permissible Exposure Limit. SARA = Superfund Amendments and Reauthorization Act. TLV = Threshold Limit Value. TSCA = Toxic Substance Control Act. WAF = Water Accommodated Fractions.

Disclaimer:

The information contained herein is based on data believed to be reliable and the manufacturer disclaims any liability incurred from the use or reliance upon the same. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This safety information is not a license to use this material as claimed by any patents of third parties. The user alone must finally determine whether a contemplated use of this material will infringe any such patents, and for obtaining any required licenses.