


 MATERIAL SAFETY DATA SHEET

 SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Arizona Chemical Company
P.O. Box 550850
Jacksonville, FL 32255

24 Hour Emergency Assistance:
Chemtrec: 800/424-9300
Other Information: 800/733-1374

Product Name: UNI-TAC® 70
Chemical Identity: Trade Secret
Generic Name: Modified Tall Oil Rosin
Chemical Family: Rosin Based Resins
CAS Number: Confidential (See Section 15).

 SECTION 2 COMPOSITION/INFORMATION OF INGREDIENTS

	ACGIH TLV (mg/m ³)		OSHA PEL (mg/m ³)	
	TWA	STEL	TWA	STEL
Particulates not otherwise classified	10	NE	NE	NE
Particulates not otherwise regulated				
Total dust	NE	NE	15	NE
Respirable fraction	NE	NE	5	NE

TLV = Threshold Limit Value
PEL = Permissible Exposure Limit
TWA = Time-Weighted Average (8 hours)
STEL = Short Term (15 minutes) Exposure Limit
NE = Not Established

This product contains a very low level of chemically-bound formaldehyde which may be released slowly and in small amounts (less than 0.1 ppm) at 110°C or above. If this product is used in molten form in a manner which might liberate formaldehyde, the OSHA formaldehyde standard (29 CFR 1910.1048) should be applied to airborne formaldehyde in the workplace. The OSHA and ACGIH time-weighted average (8-hour) exposure limit is 0.75 ppm. The OSHA and ACGIH short term (15 minute) exposure limit is 2 ppm. The action level under OSHA's formaldehyde standard is 0.5 ppm for an 8-hour time-weighted average exposure.

 SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Amber solid with a mild odor.

1. **WARNING! MAY FORM FLAMMABLE OR EXPLOSIVE DUST-AIR MIXTURES.**
2. **AVOID BREATHING DUST OR VAPOR FROM PRODUCT AT ELEVATED TEMPERATURES.**

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SECTION 3 HAZARDS IDENTIFICATION CONT'D
=====**POTENTIAL HEALTH EFFECTS:**

EYE: Resin dust can cause mechanical irritation.

SKIN: No effects are known from the solid resin or dust.

INHALATION: During normal use of the molten resin at temperatures below 180°C (356°F) there is only minimal risk from inhalation of resin fumes, when effective ventilation is used. Inhalation of resin dust may cause irritation of the nose and throat in sensitive individuals.

INGESTION: Not a probable route of entry into the body.

SUBCHRONIC EFFECTS (Target Organ Effects): No effects known.

CHRONIC EFFECTS: No effects known.

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SECTION 4 FIRST AID MEASURES
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EYE CONTACT: In case of contact, immediately flush eyes with plenty of water. Call a physician if signs of irritation appear.

SKIN CONTACT:

Solid Resin: As good industrial hygiene practice, at the end of each work shift, wash skin with plenty of soap and water.

Molten Resin: Cool the affected area with cold water, but do not attempt to remove the solidified resin from the skin. Consult a physician immediately for burn treatment.

INHALATION: Remove to fresh air if effects occur from inhalation of molten resin vapor, fumes or resin dust.

INGESTION: Emergency care should not be needed.

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SECTION 5 FIRE FIGHTING MEASURES
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Flash point: >201°F (93.89°C) Cleveland Closed Cup
Upper/lower flammable limits: Unknown
Autoignition temperature: Unknown
Flammability classification: Non-hazardous
Flame propagation rate: Not applicable
Extinguishing media: Water fog, foam, carbon dioxide or dry chemical.
Special precautions: Toxic gases such as carbon monoxide may be released during fire. Use positive-pressure, self-contained breathing apparatus and full protective clothing.
Unusual Fire and Explosion: May form flammable dust-air mixtures. See Hazards: Engineering Controls (page 4).

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SECTION 6 ACCIDENTAL RELEASE MEASURES
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In a clean area, recover for reuse. Dispose of contaminated material.

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SECTION 7 HANDLING AND STORAGE
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When handling molten resin, use adequate ventilation to avoid the accumulation of fumes. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use good housekeeping to prevent dust accumulation.

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SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION
=====**EYES:**

Solid Resin: Use safety glasses. An eye wash is recommended.

Molten Resin: Use chemical safety goggles. An eye wash is recommended.

SKIN:

Solid Resin: As good industrial hygiene practice, impervious (for example, nitrile) gloves are recommended.

Molten Resin: Heat-resistant gloves and other protective clothing should be worn to prevent body contact. A safety shower is recommended.

INHALATION:

Solid Resin: For normal operations, no respiratory protection is required. A dust mask is recommended if resin dust becomes airborne.

Molten Resin: An air purifying respirator designed for organic vapors should provide adequate protection.

ENGINEERING CONTROLS:

Solid Resin: Use adequate ventilation. In process operations capable of generating static electricity and/or dust clouds, grounding, venting and explosion relief provisions must be used.

Molten Resin: Exhaust ventilation is required to remove resin vapor and fumes and to maintain formaldehyde off-gas below allowable limits. Discharge from the ventilation system should comply with applicable air pollution control regulations.

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES
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Appearance/state: Amber solid
 Odor: Mild
 Ph: Not applicable
 Vapor Pressure: <0.001 mm Hg at 20°C (68°F)
 Vapor density: Not applicable
 Boiling point: Not applicable
 Melting point: 80°C
 Solubility in water: <0.1% at 25°C (77°F)
 Specific gravity: 1.06 at 25°C/25°C (water=1.00)
 Evaporation rate: Approx. 0 (n-BuAc=1)
 % Volatile by weight: 0

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SECTION 10 STABILITY AND REACTIVITY
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Chemical stability: Stable

 Conditions to avoid: This product is not reactive with water.

 Chemicals to avoid: None known.

 Hazardous Polymerization: Will not occur.

 Hazardous Decomposition Products: Small amounts of formaldehyde may be evolved on heating. Thermal decomposition products can include toxic oxides of carbon.

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SECTION 11 TOXICOLOGICAL INFORMATION
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The total product is not on the International Agency for Research on Cancer (IARC) or National Toxicology Program (NTP) or OSHA lists of carcinogens or potential carcinogens.

TOXICITY DATA: The following data on test animals indicate that the product has low acute toxicity potential and is not a skin or eye irritant by OSHA criteria.

ROUTE-SPECIES	TEST	DOSAGE	UNITS	IRRITATION DATA
Oral-rat	LD50	>1	g/kg	Skin-rabbit Non-irritant
				Eye-rabbit Mild irritant

OTHER: Formaldehyde gas may cause irritation of the skin, eyes, nose and throat and is a skin sensitizer. Formaldehyde is recognized as a weak mutagen. It is also listed by NTP and IARC and is regulated by OSHA as a carcinogen. The basis for these listings consists of animal studies and controversial human epidemiological studies.

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SECTION 12 ECOLOGICAL INFORMATION
=====Acute Toxicity to Rainbow Trout:

24 Hour LC50	3.6 mg/l
48 Hour LC50	2.3 mg/l
96 Hour LC50	1.5 mg/l
NOEC	1.0 mg/l

Acute Toxicity to Daphnia Magna:

24 Hour EC50	7.3 mg/l
24 Hour NOEC	3.2 mg/l
48 Hour EC50	3.8 mg/l
48 Hour NOEC	1.8 mg/l

Algistatic Effect:

E _b C50 (96 hour)	0.031 mg/l
E _r C50 (0-24 hour)	0.042 mg/l
NOEC	0.0125 mg/l

Ready Biodegradability:

Attained 0% degradation after 28 days at a test concentration of 10 mg/l. It is not considered to be ready biodegradable.

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SECTION 13 DISPOSAL CONSIDERATIONS
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Dispose of waste by landfill or incineration in accordance with all local, state and federal regulations.

Resource Conservation and Recovery Act (RCRA): This product is not included in the lists of hazardous substances (40 CFR 261.33), nor does it exhibit the characteristics of hazardous waste (40 CFR 261.20-24).

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SECTION 14 TRANSPORT INFORMATION
=====DOT - Department of Transportation Hazardous Materials Regulations

DOT Hazard Class:	Not applicable
DOT Proper Shipping Name:	Not applicable
Technical Name:	Not applicable
DOT Identification Number:	Not applicable
Surface Freight Classification:	Plastic Synthetic

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 SECTION 15 REGULATORY INFORMATION
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Toxic Substances Control Act (TSCA): This product is on the TSCA Inventory.

SARA, Title III, Section 313 (40 CFR 372): This product contains the following substances which are reportable under SARA Toxic Chemical Release Reporting Regulations:

Chemical Name	CAS #	Wt%
None		

New Jersey Worker and Community Right To Know Act: This product contains the following substances which appear on the Hazardous Substance List or are trade secret:

Chemical Name	CAS or NJTS #	Wt%
Trade Secret	NJTSRN-6642	100.0

Pennsylvania Worker and Community Right To Know Act: This product contains the following substances which appear on the Hazardous Substance List:

Chemical Name	CAS #	Wt%
None		

WHMIS (Canada) Status: Not a controlled product under WHMIS.

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

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 SECTION 16 OTHER INFORMATION
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Hazard Ratings: NFPA 1 Health 1 Fire 0 Reactivity

Revision Note: Revision 14. Revised format.

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Title: Product Regulatory Technologist

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END OF MSDS