



# Material Safety Data Sheet

## Section 1. Product and Company Identification

<b>Common Name</b>	<b>NC 254</b>	<b>Code</b>	Not available
<b>Product type</b>	<b>Paste flux (No Clean)</b>	<b>Validation Date</b>	2004-11-11
<b>Synonym</b>	Not available.		
<b>Material Uses</b>	Not available.		
<b>Supplier</b>	AIM	<b>In Case of Emergency</b> <b>INFOTRAC</b> <b>(North America): (800) 535-5053</b> <b>(International): (352) 323-3500</b>	
<b>Manufacturer</b>	AIM		

## Section 2. Hazardous Components

Name	CAS #	% by Weight	Toxicity Data (LC50/LD50, TLV)
1) M-pyrrol	872-50-4	5 - 15	ORAL (LD50): Acute: 5130 mg/kg [Mouse]. 3914 mg/kg [Rat].
2) Alkyl-dialcohol (C2-C8)	94-96-2	10 - 15	ORAL (LD50): Acute: 1400 mg/kg [Rat]. 2600 mg/kg [Rabbit]. 1900 mg/kg [Mouse].
3) Hydrogenated rosin	65997-06-0	40 - 45	ORAL (LD50): Acute: 8400 mg/kg [Rat]. 5000 mg/kg [Guinea pig].
4) Rosin	8050-09-7	5 - 10	Not available.

## Section 3. Hazards Identification

<b>Physical State and Appearance</b>	Liquid. (Pasty.)
<b>Emergency Overview</b>	<b>WARNING!!</b> Keep away from heat, sparks and flame. Avoid contact with eyes DO NOT ingest. Do not breathe vapor or mist. Avoid prolonged or repeated contact with skin. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
<b>Routes of Entry</b>	Inhalation. Ingestion.
<b>Potential Acute Health Effects</b>	<b>Eyes</b> This product may be hazardous in case of eye contact (irritant). <b>Skin</b> This product may be hazardous in case of skin contact (irritant, sensitizer). <b>Inhalation</b> Fumes and/or dusts produced by this product may be hazardous in case of inhalation. May be fatal if inhaled. <b>Ingestion</b> Fumes and/or dusts produced by this product may be hazardous in case of ingestion. May be fatal if swallowed.
<b>Potential Chronic Health Effects</b>	Chronic effects: Fumes and/or dusts produced by this product may be hazardous in case of ingestion, of inhalation. This product may be hazardous in case of skin contact (irritant, sensitizer), of eye contact (irritant). As shipped, this product is not hazardous in case of skin contact (permeator). Non-corrosive for skin.
<b>Medical Conditions Aggravated by Overexposure:</b>	Repeated exposure to toxic material may produce general deterioration of health by an accumulation in one or many human organs.
<b>Overexposure /Signs/Symptoms</b>	Not available.
<b>See Toxicological Information (section 11)</b>	

Continued on Next Page

**Section 4. First Aid Measures**

<b>Eye Contact</b>	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
<b>Hazardous Skin Contact</b>	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
<b>Hazardous Inhalation</b>	Not available.
<b>Ingestion</b>	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
<b>Hazardous Ingestion</b>	Not available.
<b>Notes to Physician</b>	Not available.

**Section 5. Fire Fighting Measures**

<b>Flammability of the Product</b>	Combustible.
<b>Auto-Ignition Temperature</b>	Not available
<b>Flash Points</b>	The lowest known value is CLOSED CUP: 92.8°C (199°F). OPEN CUP: 96°C (204.8°F).
<b>Flammable Limits</b>	Not available
<b>Products of Combustion</b>	These products are carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ...).
<b>Fire Hazards in Presence of Various Substances</b>	Combustible in presence of open flames and sparks.
<b>Explosion Hazards in Presence of Various Substances</b>	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
<b>Fire Fighting Media and Instructions</b>	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.
<b>Protective Clothing (Fire)</b>	Be sure to use an approved/certified respirator or equivalent.
<b>Special Remarks on Fire Hazards</b>	Combustible. (M-pyrrol)
<b>Special Remarks on Explosion Hazards</b>	No additional remark.

**Section 6. Accidental Release Measures**

<b>Small Spill and Leak</b>	Absorb with an inert material and put the spilled material in an appropriate waste disposal. If necessary: <b>Neutralize the residue with a dilute solution of sodium carbonate.</b>
<b>Large Spill and Leak</b>	No specific data for spill and leak according to our database.

**Section 7. Handling and Storage**

<b>Handling</b>	Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. To avoid fire, minimize ignition sources.
<b>Storage</b>	Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

**Section 8. Exposure Controls, Personal Protection**

**Engineering Controls** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection**

**Eyes** Splash goggles.

**Body** Lab coat.

**Respiratory** Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

**Hands** Gloves.

**Feet** Not applicable.

\* **Note:** Suggested protective clothing may not be adequate for a specific process. Consult a specialist before using.

**Personal Protection in Case of a Large Spill** Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name	Exposure Limits
1) M-pyrrol	Not available.
2) Rosin, hydrogenated	Not available.
3) Alkyl-dialcohol (C2-C8)	Not available.
4) ROSIN	Not available.

Consult local authorities for acceptable exposure limits.

**Section 9. Physical and Chemical Properties**

<b>Physical State and Appearance</b>	Liquid. (Pasty.)	<b>Odor</b>	Typical rosin. (Slight.)
<b>Molecular Weight</b>	Not applicable.	<b>Taste</b>	Not applicable.
<b>Chemical formula</b>	Not applicable.	<b>Color</b>	Yellowish. (Light.)
<b>pH (1% Soln/Water)</b>	Acidic.	<b>Specific Gravity</b>	Weighted average: 1.03 (Water = 1)
<b>Acid Value (IPC TM-650, 2.3.13)</b>	Not available.		
<b>Boiling/Condensation Point</b>	Weighted average: 295.38°C (563.7°F)		
<b>Melting/Freezing Point</b>	Weighted average: -12.16°C (10.1°F)		
<b>Critical Temperature</b>	Not available.		
<b>Vapor Pressure</b>	Weighted average: 0 kPa (@ 20°C)		
<b>Vapor Density</b>	Weighted average: 2.69 (Air =1)		
<b>Volatility</b>	Not available.		
<b>Odor Threshold</b>	Not available.		

Continued on Next Page

<b>Evaporation Rate</b>	Not available.
<b>VOC</b>	Not available
<b>Viscosity</b>	Not available.
<b>LogK<sub>ow</sub></b>	Not available.
<b>Ionicity (in Water)</b>	Not available.
<b>Dispersion Properties</b>	Is not dispersed in cold water, hot water. See solubility in methanol, diethyl ether.
<b>Solubility</b>	Soluble in diethyl ether. Partially soluble in methanol. Insoluble in cold water, hot water.
<b>Physical Chemical Comments</b>	Not available.

**Section 10. Stability and Reactivity**

<b>Stability and Reactivity</b>	The product is stable.
<b>Conditions of Instability</b>	Stable in normal conditions.
<b>Incompatibility with Various Substances</b>	Very slightly reactive with oxidizing agents, reducing agents.
<b>Hazardous Decomposition Products</b>	Not available.
<b>Hazardous Polymerization</b>	Will not occur.
<b>Corrosivity</b>	Very slightly corrosive in presence of copper. Non-corrosive in presence of glass.
<b>Special Remarks on Corrosivity</b>	Not available.

**Section 11. Toxicological Information**

<b>Toxic and Chronic Effects on Humans</b>	Fumes and/or dusts produced by this product may be hazardous in case of ingestion, of inhalation. This product may be hazardous in case of skin contact (irritant, sensitizer), of eye contact (irritant). As shipped, this product is not hazardous in case of skin contact (permeator). Non-corrosive for skin. <b>CARCINOGENIC EFFECTS:</b> Classified NONE by NIOSH [M-pyrrol]. Classified NONE by NIOSH [Alkyl-dialcohol (C2-C8)]. Classified 4 (Probably not for human) by IARC, 4 (No evidence.) by NTP, NONE by OSHA [Hydrogenated rosin]. <b>MUTAGENIC EFFECTS</b> Not available. <b>TERATOGENIC EFFECTS</b> Not available. <b>DEVELOPMENTAL TOXICITY</b> Not toxic. The product may be toxic to upper respiratory tract, eye, lens or cornea, thyroid. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to toxic material may produce general deterioration of health by an accumulation in one or many human organs.
<b>Toxicity to Animals</b>	No specific information is available in our data base regarding the toxicity to animals.
<b>Special Remarks on Chronic Effects on Humans</b>	Dust may cause eye irritation.
<b>Special Remarks on Other Toxic Effects on Humans</b>	Inhalation of smoke and fumes, at high temperatures, may cause an asthmatic reaction in some individuals. Prolonged and repeated contact with bare skin may cause irritation or dermatitis.
<b>Special Remarks on Toxicity to Animals</b>	If this product is heated to temperatures sufficient to produce smoke or fumes, TLV-TWA mentioned should be observed.


**Section 12. Ecological Information**

<b>Ecotoxicity</b>	Not available.
<b>BOD5 and COD</b>	Not available.
<b>Biodegradable/OECD</b>	Not available.
<b>Mobility</b>	Not available. Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
<b>Toxicity of the Products of Biodegradation</b>	The products of degradation are less toxic than the product itself.
<b>Special Remarks on the Products of Biodegradation</b>	Not available.

**Section 13. Disposal Considerations**

<b>Waste Information</b>	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
<b>Waste Stream</b>	Not available.
<b>Consult your local or regional authorities.</b>	

**Section 14. Transport Information**

<b>DOT Classification</b>	Not a DOT controlled material (United States).	
	Not regulated	
<b>Special Provisions for Transport</b>	Not applicable.	
<b>Special Provisions for Transport</b>		
<b>IMO/IMDG Classification</b>	Not controlled under IMDG.	
<b>Marine Pollutant</b>	Not available.	
<b>ADR/RID Classification</b>	Not controlled under ADR (Europe).	
<b>ICAO/IATA Classification</b>	Not controlled under IATA.	

**Section 15. Regulatory Information**

<b>HCS Classification</b>	Class: Irritating substance. Class: Sensitizing substance. Class: Target organ effects. Class: Combustible liquid having a flash point between 37.8°C (100°F) and 93.3°C (200°F).
<b>U.S. Federal Regulations</b>	TSCA 4(a) final test rules: M-pyrrol- TSCA 5(e) substance consent order: M-pyrrol- TSCA 8(a) IUR: M-pyrrol- TSCA inventory: M-pyrrol-; Alkyl-dialcohol (C2-C8; Hydrogenated rosin; Rosin TSCA 12(b) one time export: M-pyrrol

SARA 302/304/311/312 extremely hazardous substances: No products were found.  
 SARA 302/304 emergency planning and notification: No products were found.  
 SARA 302/304/311/312 hazardous chemicals: M-pyrrol; Alkyl-dialcohol (C2-C8); Rosin  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: M-pyrrol: fire, immediate health hazard, delayed health hazard; Alkyl-dialcohol (C2-C8) immediate health hazard, delayed health hazard; Rosin: immediate health hazard, delayed health hazard  
 SARA 313 toxic chemical notification and release reporting: M-pyrrol: 1%  
 Clean water act (CWA) 307: No products were found.  
 Clean water act (CWA) 311: No products were found.  
 Clean air act (CAA) 112 accidental release prevention: No products were found.  
 Clean air act (CAA) 112 regulated flammable substances: No products were found.  
 Clean air act (CAA) 112 regulated toxic substances: No products were found.

**State Regulations**

Pennsylvania RTK: M-pyrrol: (generic environmental hazard)  
 Florida: M-pyrrol  
 Minnesota: M-pyrrol; Rosin  
 Massachusetts RTK: M-pyrrol  
 California prop. 65: No products were found.

**International Regulations**

**EINECS** Not available.

**DSCL (EEC)** 36/38- Irritating to eyes and skin.  
 42/43- May cause sensitization by inhalation and skin contact.

**International Lists** Australia (NICNAS): All components  
 Korea (TCCL): All components  
 Philippines (RA6969): All components

**Section 16. Other Information**

**Hazardous Material Information System (U.S.A.)**

Health	*	2
Fire Hazard		1
Reactivity		0
Personal Protection		h

**National Fire Protection Association (U.S.A.)**



**Label statements**

HARMFUL IF INHALED OR SWALLOWED.  
 CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, CRYSTALLINE LENS OR CORNEA, THYROID.  
 MAY CAUSE EYE AND SKIN IRRITATION.  
 MAY CAUSE RESPIRATORY AND SKIN REACTION.  
 COMBUSTIBLE LIQUID AND VAPOR.  
 VAPOR MAY CAUSE FIRE.

**References**

-CHEMTOX database

**Other Special Considerations**

-ALL COMPONENTS WITH SUSCEPTIBLE HAZARDS THAT ARE PRESENT IN A CONCENTRATION GREATER THAN 1 % (GREATER THAN 0.1 % FOR CARCINOGENS) HAVE BEEN DISCLOSED IN THIS SAFETY DOCUMENT.

**Document Modifications**

Validated by R. Richard on 2004-11-11.

Verified by R. Richard.  
 Printed 2004-11-11.

**Information/Contact**

AIM  
 25 Kenney Drive, Rhode Island, USA, 02920  
 (401) 463-5605 (800) CALL AIM

**Notice to Reader**

*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 the accuracy or 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.*