





**KANO LABORATORIES, INC.  
SAFETY DATA SHEET**

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**Manufacturer:** Kano Laboratories, Inc.  
1000 E. Thompson Lane  
Nashville, TN 37211  
**Information Phone Number:** (615) 833-4101  
**Fax:** (615) 833-5790 **Emergency:** 800-424-9300  
**Website:** www.kanolaboratories.com

HMIS Hazard Rating

	HEALTH	2*
	FLAMMABILITY	3
	REACTIVITY	0
	PERSONAL PROTECTION	X

\* Chronic health effect possible

**Product Name:** MOLYFILM  
**MSDS Date of Preparation:** 12/15/2010  
**Product Use:** Lubricant, antiseize and mold release

**SECTION 2: HAZARDS IDENTIFICATION**

Black liquid with solvent odor.

**EMERGENCY OVERVIEW**

**WARNING!** Flammable Liquid and Vapor. May cause severe eye irritation. May cause skin irritation. May be harmful if absorbed through the skin. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects such as headache, dizziness, nausea and vomiting. Overexposure to vapors can cause narcosis and death. Aspiration into the lungs during ingestion or vomiting may cause lung damage. Suspect cancer hazard. Contains trichloroethylene which may cause cancer based on animal data.

**Potential Health Effects:**

**Eye:** May cause severe eye irritation with redness, tearing, and stinging. Contact with concentrated vapors may also cause eye irritation.

**Skin:** May cause moderate irritation with redness, rash, and swelling. Prolonged or repeated contact may result in defatting and dermatitis. May be absorbed through the skin causing systematic effects similar to inhalation and ingestion.

**Inhalation:** Inhalation of vapors or mists may cause mucous membrane and upper respiratory tract irritation and central nervous system depression. Symptoms may include coughing, headache, dizziness, drowsiness, nausea, and vomiting. Inhalation at higher concentration can cause adverse effects on visual perception and motor skills. Ventricular arrhythmias and rapid respiration may also occur. Prolonged overexposure or exposure to extremely high concentrations may cause unconsciousness or death.

**Ingestion:** Harmful if swallowed. Aspiration into the lungs during ingestion or vomiting may cause lung damage, pneumonia, or edema.

**Chronic Hazards:** Prolonged or repeated exposure may cause damage to the liver, lymphatic, kidney, and cardiovascular system. Humans exposed to trichloroethylene have become intolerant of ethyl alcohol, with small quantities causing inebriation and skin blotches.

**Carcinogen Status:** IARC has classified trichloroethylene in Group 2A, as a substance probably carcinogenic to humans. NTP lists trichloroethylene as reasonable anticipated to be a carcinogen. None of the other components are listed as carcinogens by IARC, NTP or OSHA.

**Medical Conditions Aggravated by Exposure:** Acute and chronic kidney or liver disease, rhythm disorders of the heart, and disorders of the nervous system.

<b>SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS</b>
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Chemical Name	CAS#	%
Trichloroethylene	79-01-6	80-90
Isopropanol	67-63-0	1-10
Molybdenum Disulfide	1317-33-5	1-5

<b>SECTION 4: FIRST AID MEASURES</b>
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**Eye:** Rinse thoroughly with water for at least 15 minutes, holding the eye lids open to be sure the material is washed out. Get immediate medical attention.

**Skin:** Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation or symptoms of exposure develop. Launder clothing before re-use.

**Inhalation:** Remove victim to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

**Ingestion:** DO NOT induce vomiting. Keep the victim calm and warm. Never give anything by mouth to an unconscious or drowsy person. Get immediate medical attention.

<b>SECTION 5: FIRE FIGHTING MEASURES</b>
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**Flash Point:** 51°F

**Flammable Limits:** LEL: 2%  
UEL: 12%

**Autoignition Temperature:** Not Determined

**Extinguishing Media:** Use water spray, carbon dioxide, dry chemical or foam.

**Special Fire Fighting Procedures:** Wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

**Unusual Fire Hazards:** Combustion products are hazardous.

**Hazardous Decomposition Products:** Oxides of carbon and sulfur, hydrogen chloride, chlorine and phosgene.

<b>SECTION 6: ACCIDENTAL RELEASE MEASURES</b>
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**Spill:** Evacuate the area. Remove all ignition sources such as open flames, spark producing equipment, pilot lights, etc. Wear appropriate protective clothing to prevent eye and skin contact including impervious gloves, safety goggles and respirator if needed (refer to Section 8 for specific recommendations). Ventilate area and avoid breathing vapors. Cover with an inert absorbent material and collect into an appropriate container for disposal. Prevent release to waterways. Report spills and releases as required to appropriate authorities.

<b>SECTION 7: HANDLING AND STORAGE</b>
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**Handling:** Avoid breathing vapors, aerosols and mists. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash exposed skin thoroughly with soap and water after use. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use. Do not cut, braze, solder, grind or weld empty containers. Do not reuse containers. Follow all MSDS precautions in handling empty containers.

**Storage:** Store in a cool, dry, well-ventilated location away from incompatible materials. Keep containers closed.

<b>SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION</b>
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Chemical Name	Exposure Limits
Trichloroethylene	100 ppm OSHA PEL-TWA 300 ppm OSHA Peak 50 ppm ACGIH TLV-TWA 100 ppm ACGIH TLV-STEL
Isopropanol	400 ppm OSHA PEL-TWA 200 ppm ACGIH TLV-TWA 400 ppm ACGIH TLV-STEL
Molybdenum Disulfide	3 mg/m <sup>3</sup> (respirable) ACGIH TLV-TWA as Mo 10 mg/m <sup>3</sup> (inhalable) ACGIH TLV-TWA as Mo

**Ventilation:** Use with adequate general or local exhaust ventilation to maintain concentrations below the occupational exposure limits. Use explosion proof electrical equipment and wiring where required.

**Respiratory Protection:** If needed, a NIOSH approved respirator with organic vapor cartridges may be used. For higher exposures, a supplied air respirator may be required. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

**Skin Protection** Impervious gloves are recommended when needed to avoid skin contact.

**Eye Protection:** Chemical safety goggles recommended.

**Other Protective Equipment:** Impervious clothing as required to prevent skin contact and contamination of personal clothing. Suitable eye wash and washing facilities should be available in the work area.

<b>SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES</b>
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**Appearance and Odor:** Black liquid with solvent odor.

**pH:** N/A

**Boiling Point:** 82°C

**Vapor Pressure:** 31 mmHg @ 20°C

**Percent Volatile by Volume:** >80%

**Specific Gravity:** 1.45

**Melting Point:** Not established

**Water Solubility:** Insoluble

**Evaporation Rate (ether=1):** >1

<b>SECTION 10: STABILITY AND REACTIVITY</b>
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**Stability:** Stable under normal conditions of storage or use.

**Incompatibility/Conditions to Avoid:** Avoid strong alkalis, oxidizers, barium, lithium, magnesium, titanium, aluminum, and liquid oxygen. Avoid heat, sparks, flames and all other sources of ignition. Avoid hot surfaces, electric arcs and ultra-violet light.

**Hazardous Decomposition Products:** Combustion will produce oxides of carbon, hydrogen chloride, chlorine and phosgene. High temperatures, electric arcs and ultra-violet light will decompose trichloroethylene to form toxic and corrosive hydrogen chloride and phosgene.

**Hazardous Polymerization:** Will not occur.

<b>SECTION 11: TOXICOLOGICAL INFORMATION</b>
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Toxicological testing has not been performed on this product as a mixture.

<b>SECTION 12: ECOLOGICAL INFORMATION</b>
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No data available.

<b>SECTION 13: DISPOSAL INFORMATION</b>
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Dispose in accordance with all local, state and federal regulations.

<b>SECTION 14: TRANSPORT INFORMATION</b>
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**Containers not over 1 liter (0.3 gallons) capacity**

**DOT Shipping Name:** Consumer Commodity

**DOT Hazard Class/Packing Group:** ORM-D

**UN Number:** Not Applicable

**DOT Labels Required (49CFR172.101):** None

**Containers over 1 liter (0.3 gallons) capacity**

**DOT Shipping Name:** Flammable liquid, toxic, n.o.s. (Trichloroethylene, Isopropanol)

**DOT Hazard Class/Packing Group:** 3 (6.1), II

**UN Number:** UN1992

**DOT Labels Required (49CFR172.101):** Flammable Liquid, Toxic

**Hazardous Substance (49CFR172.101):** Trichloroethylene

**Reportable Quantity:** 100 lbs (Product-110 lbs)

**DOT Marine Pollutants:** This product does not contain marine pollutants as defined in 49CFR 171.8.

**IATA Shipping Name:** Flammable liquid, toxic, n.o.s. (Trichloroethylene, Isopropanol)

**IATA Hazard Class/Packing Group:** 3 (6.1), II

**UN Number:** UN1992

**IATA Hazard Labels Required:** Flammable Liquid, Toxic

<b>SECTION 15: REGULATORY INFORMATION</b>
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**U.S. FEDERAL REGULATIONS:**

**CERCLA 103 Reportable Quantity:** Molyfilm – 110 lbs based on the RQ for trichloroethylene (100 lbs) present at 90% maximum. . Many states have more stringent reporting requirements. Report spills and other releases as required under federal, state and local regulations.

**SARA TITLE III:**

**Hazard Category for Section 311/312:** Acute Health, Chronic Health, Fire Hazard

**Section 313 Toxic Chemicals:** This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements:

Trichloroethylene	79-01-6	80-90%
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**Section 302 Extremely Hazardous Substances (TPQ):** None

**EPA Toxic Substances Control Act (TSCA) Status:** All of the components of this product are listed on the TSCA inventory.

<b>SECTION 16: OTHER INFORMATION</b>
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**HMIS Ratings:** Health – 2      Flammability - 3      Reactivity - 0

**NFPA Ratings:** Health – 2\*      Flammability - 3      Reactivity - 0

\* Chronic health effect possible

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The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or the consequences of its use or misuse.