

**GC/Waldom Electronics**  
1801 Morgan Street  
Rockford, IL 61102  
Product Information: (815) 968-9661

**Product Name: Print Kote Solvent**  
MSDS Number: 214  
Revision Date: 01/29/01  
Supersedes Date: 10/20/97

## MATERIAL SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

Product Type: Thinners/Solvent  
Product Name: **Print Kote Solvent**  
Part Number(s): **22-209**

**Emergency Contact: Chemtrec**  
**Phone (24 hours): (800) 424-9300**

### Section 1 - Identification of Product

HMIS Ratings: Least 0  
Slight 1  
Health 2 Moderate 2  
Flammability 3 High 3  
Reactivity 0 Extreme 4  
Gloves, Safety Glasses B

WHMIS Class/Description: Class B2 Flammable Liquid  
Class D2B Other Toxic effects - Skin irritant

### Section 2 - Hazardous Ingredients

Hazardous Component	CAS#	% Range	WHMIS Controlled
Toluene*	108-88-3	100	Yes
Xylene (Mixed Isomers)	1330-20-7	0.1 - 1	Yes

See Section 8 for exposure guidelines.  
\* Regulated under Section 313 of SARA

### Section 3 - Physical Data

Physical Description: Mobile Liquid Aromatic Hydrocarbon  
Colorless Aromatic Odor

Physical State: Mobile Liquid Aromatic Hydrocarbon  
Appearance: Colorless  
Odor: Aromatic Odor  
Odor Threshold: 2 - 40 ppm

Freezing Point: -95°C  
Boiling Point: 111°C  
Density: 869 - 873 kg/m3 @ 15°C  
Vapor Density: 3.1 mg/m3

Vapor Pressure: >22 mm Hg @ 20°C  
Specific Gravity: 0.866  
pH: Not available  
Viscosity: 0.7cSt @ 20°C  
Evaporation Rate: 2.24@  
Partition Coefficient: 616.6  
Water Solubility: Immiscible  
Soluble in Other Solvents: Ether, alcohol, benzene  
Molecular Weight: 92.13  
Formula: C6 H5 CH3

#### Section 4 - Fire & Explosion Hazard Data

Flash Point Deg C: Method Tag Closed Cup 4°C  
Lower Flammability Limit: 1% (vol.)  
Upper Flammability Limit: 7% (vol.)  
Auto-ignition Temperature: 480°C  
Extinguishing Media: Dry Chemical  
Carbon Dioxide  
Foam  
Water Fog  
Fire fighting Instructions: Vapor forms a flammable/explosive mixture with air between upper and lower flammable limits. Vapors may travel along ground end flashback along vapor trail may occur. Do not enter confined fire space without adequate protective clothing and an approved positive pressure self-contained breathing apparatus. Use water to cool fire exposed containers. Containers exposed to intense heat could result in container rupture. Container areas exposed to direct flame contact of container structure. Fight fire from maximum distance. Always stay away from ends of containers due to explosive potential. Flammable. Do not use water except as a fog.  
Hazardous Combustion Products: Carbon monoxide and carbon dioxide are produced on combustion.

#### Section 5 - Health Hazard Data

Routes of Exposure: Inhalation is the primary route of exposure although absorption may occur through skin contact or following accidental ingestion.  
Health Hazards: Flammable liquid.  
Irritating to skin.  
Vapors are moderately irritating to the respiratory passages. The liquid when accidentally aspirated into the lungs can cause a severe inflammation of the lung. In rare cases may sensitize heart muscle causing heart arrhythmia. Solvent abusers exposed to high doses of aromatic solvents (e.g. toluene/xylene) show signs of hearing loss as well as damage to the brain, liver and kidney. Excessive exposure during pregnancy may be hazardous to the developing fetus. Vapors are moderately irritating to the eyes.  
Handling Information: Eliminate all ignition sources.

Avoid prolonged exposure to vapors.  
Wear suitable gloves and eye protection.  
Bond and ground transfer containers and equipment to avoid static accumulation.  
Empty containers are hazardous, may contain flammable/explosive dusts, liquid residue or vapors. Keep away from sparks and open flames.

**Emergency and First Aid Procedures**

**Eyes:** Flush eyes with water for at least 15 minutes while holding eyelids open. Obtain medical attention as soon as possible after first aid has been initiated and completed.

**Skin:** Flush affected skin with gently flowing lukewarm water for at least 20 minutes and remove contaminated clothing while rinsing. Wash contaminated skin with mild soap and water for 15 minutes. If irritation occurs and persists, obtain medical attention.

**Ingestion:** Do not induce vomiting. Guard against aspiration into lungs by having the individual turn on to their left side. Do not give anything by mouth to an unconscious person. Obtain medical attention immediately. If vomiting occurs spontaneously keep head below hips to prevent aspiration of liquid into the lungs. Remove victim from further exposure and restore breathing, if required. Obtain medical attention.

**Notes to Physician:** The main hazard following accidental ingestion is aspiration of the liquid into the lungs producing chemical pneumonitis. If more than 2.0 mL/kg has been ingested, vomiting should be induced with supervision. If symptoms such as loss of gag reflex, convulsions or unconsciousness occur before vomiting, gastric lavage with a cuffed endotracheal tube should be considered.

**Section 6 - Reactivity Data**

**Chemical Stability:** Yes  
**Hazardous Polymerization:** No  
**Sensitive to Mechanical Impact:** No  
**Sensitive to Static Discharge:** Yes  
**Incompatible Materials:** Avoid strong oxidizing agents.  
Avoid prolonged contact with nitrile rubber and PVC.  
Avoid natural, butyl and neoprene rubbers.

**Conditions of Reactivity:** Avoid excessive heat, open flames and all ignition sources.

**Section 7 - Spill or Leak Procedures**

**Precautions:** Issue warning "Flammable", Eliminate all ignition sources. Isolate hazard area and restrict access. Try to work upwind of spill. Avoid direct contact with material. Saturated clothing should be immediately removed to avoid flammability hazard. Wear appropriate breathing apparatus (if applicable) and protective clothing. Stop lead only if safe to do so. Dike and contain land spills; contain water spills by booming. Use water fog to knock down vapors; contain runoff. For large spills remove by mechanical means and place in containers.

Absorb residue or small spills with absorbent material and remove to non-leading containers for disposal. Recommended materials: Sand or Earth. Flush area with water to remove trace residue. Dispose of recovered material as noted under Disposal Considerations. Notify appropriate environmental agency(ies).

Environmental Effects: Do not allow product or runoff from fire control to enter storm or sanitary sewers, lakes, rivers, streams or public waterways. Block off drains and ditches. Spill area must be cleaned and restored to original condition or to the satisfaction that environmental and/or other agencies be notified of a spill incident. May be harmful to aquatic life.

Biodegradability: Biodegradable (Slow). Rapid volatilization. Not expected to bioconcentrate.

### Section 8 - Special Protection Information

The following information, while appropriate for the product, is general in nature. The selection of personal protective equipment will vary depending on the conditions of use.

#### Exposure Controls

Occupational Exposure Limits: Toluene (skin): 50 ppm, 188mg/m<sup>3</sup> (TLV/TWA) ACGIH Skin Notation: The Occupational exposure limit is based on the fact that skin and/or eye is a major route of exposure through absorption.

#### Mechanical Ventilation:

Mechanical ventilation is recommended for all indoor situations to control fugitive emissions. Electrical and mechanical equipment should be explosion-proof. Concentrations in air should be maintained below the recommended threshold limit value if unprotected personnel are involved. Make up air should always be supplied to balance air exhausted (either generally or locally). For personnel entry into confined spaces (i.e. bulk storage tanks) a proper confined space entry procedure must be followed including ventilation and testing of tank atmosphere. Local ventilation recommended where mechanical ventilation is ineffective in controlling airborne concentrations below the recommended occupational exposure limit.

#### Personal Protective Equipment

Eye Protection: Chemical safety goggles and/or full face shield to protect eyes and face, if product is handled such that it could be splashed into eyes. Provide an eyewash station in the area.

#### Skin Protection:

In confined spaces or where the risk of skin exposure is much higher, impervious clothing should be worn. Impervious gloves (viton, polyvinyl alcohol) should be worn at all times when handling this product. Safety showers should be available for emergency use.

#### Respiratory Protection:

Avoid breathing vapor or mist. If exposure exceeds occupational exposure limits, use an appropriate NIOSH-approved respirator. Use a NIOSH-approved chemical cartridge respirator with organic vapor cartridges or use a NIOSH-approved supplied-air respirator. For high airborne concentrations, use a

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NIOSH-approved supplied-air respirator either self-contained or airline breathing apparatus, operated in positive pressure mode.

### Section 9 – Special Precautions

#### Precautions To Be Taken in Handling And Storage

##### Handling:

Flammable. Do not cut, drill, grind, weld or perform similar operations on or near containers. Vapors may accumulate and travel to distant ignition sources and flashback. Empty containers may contain hazardous product residues. Fixed equipment as well as transfer containers and equipment should be grounded to prevent accumulation of static charge. Hot surfaces may be sufficient to ignite liquid even in the absence of sparks or flames. Extinguish pilot light, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone. Do not pressurize drum containers to empty them. Avoid breathing vapors and prolonged or repeated contact with skin. Launder contaminated clothing prior to reuse. Use good personal hygiene. Air-dry contaminated clothing in a well ventilated area before laundering.

##### Storage:

Store in a cool, dry well ventilated area, away from heat and ignition sources. Use explosion-proof ventilation to prevent vapor accumulation.

##### Waste Disposal:

Waste management priorities (depending on volumes and concentration of waste) Are: 1. Recycle (reprocess), 2. Energy recovery (cement kilns, thermal power generation), 3. Incineration, 4. Disposal at a licensed waste disposal facility. Do not attempt to combust waste on-site.

### Section 10 - Regulatory Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

##### WHMIS Class/Description:

Class B2 Flammable Liquid  
Class D2B Other Toxic Effects - Skin Irritant

##### DSL/NDSL Status:

This product, or all components, are listed on the Domestic Substances List, as required under the Canadian Environmental Protection Act.

##### Other Regulatory Status:

No Canadian federal standards.

##### \*Toluene

Warning: This product contains a chemical known to the state of California to cause cancer.

**Section 11 - Other Information**

Transportation Information

Canadian Road and Rail Shipping

Classification

UN/NA Number: UN1294  
Proper Shipping Name: Toluene  
Hazard Class: Class 3 Flammable Liquid  
Subsidiary Class: 9.2 Hazardous to the Environment

Packing Group: PG II  
Shipping Description: Toluene Class 3 (9.2) UN1294 PG II

WHMIS Label Statements

Hazard Statements: Flammable Liquid.  
Irritating to skin.

Handling Statements: Eliminate all ignition sources.  
Avoid prolonged exposure to vapors.  
Wear suitable gloves and eye protection.  
Bond and ground transfer containers and equipment to avoid static accumulation.  
Empty containers are hazardous, may contain flammable/explosive dusts, liquid residue or vapors. Keep away from sparks and open flames.

First Aid Statements: Wash contaminated skin with soap and water.  
Flush eyes with water.  
If overcome by vapors remove to fresh air.  
Do not induce vomiting.  
Obtain medical attention.

**Disclaimer**

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