

**PANNIER CORPORATION**  
**207 SANDUSKY STREET, PITTSBURGH, PA 15212-5823 U.S.A.**

**MATERIAL SAFETY DATA SHEET**

**#1060 SOLVENT**  
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**SEPTEMBER 10, 2003 – REV. 2**

**IMPORTANT:** Read this MSDS before handling and disposing of this product and pass this information on to employees, customers and users of this product.

**SECTION I - GENERAL INFORMATION** **24 HOUR EMERGENCY TELEPHONE NUMBER: 800-424-9300**  
**INTERNATIONAL EMERGENCY TELEPHONE NUMBER: 703-527-3887**

**TRADE NAME:** PANNIER "MASTER MARKER"  
**GENERIC NAME:** Flexographic Ink Solvent  
**CHEMICAL FAMILY:** Alcohol  
**CAS NO.:** 71-23-8  
**DOT HAZARDOUS MATERIALS PROPER SHIPPING NAME:** Flammable Liquid, N.O.S.  
**DOT HAZARD CLASS:** Flammable Liquid  
**UN/NA ID NO.:** UN 1993  
**HMIS CODES:** 2H, 3F, 0R

**SECTION II - HAZARDOUS INGREDIENTS**

INGREDIENT NAME	CAS NUMBER	PERCENTAGE	OCCUPATIONAL EXPOSURE LIMITS
N-Propyl Alcohol	71-23-8	100	200 PPM TWA OSHA & ACGIH 250 PPM STEL OSHA & ACGIH

**SECTION III - PHYSICAL DATA**

**BOILING POINT:** 97°C (207°F)  
**SPECIFIC GRAVITY (H<sub>2</sub>O=1):** 0.805 @ 20°/20°C  
**MELTING POINT:** -127°C (-197°F)  
**VAPOR PRESSURE:** 14.9 MM Hg at 20°C  
**PERCENT VOLATILE BY VOLUME:** 100  
**VAPOR DENSITY(AIR=1):** 2.1  
**SOLUBILITY IN WATER:** 100% @ 20°C  
**EVAPORATION RATE (N-Butyl Acetate=1):** 1.3  
**APPEARANCE AND ODOR:** Water-white liquid; mild nonresidual odor  
**MATERIAL V.O.C.:** 808g/l

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

**FLASH POINT:** 24°F (76°F)  
**METHOD USED:** Tag Closed Cup  
**AUTOIGNITION TEMPERATURE:** 413°C (775°F); ASTM D 2115  
**FLAMMABLE LIMITS:** LOWER: 2.1% UPPER: 13.7%  
**EXTINGUISHING MEDIA:** Apply alcohol or all-purpose type foams for large fires. Use dry chemical or CO<sub>2</sub> media for small fires.  
**SPECIAL FIREFIGHTING PROCEDURES:** Use water spray to cool fire-exposed containers and structures. Use water spray to disperse vapors; re-ignition is possible. Use self-contained breathing apparatus and protective clothing.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** vapors form from this product and may travel or be moved by air currents and ignited by pilot lights, other flames, sparks, heaters, electrical equipment, static discharges or

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other ignition sources at locations distant from product handling point. This product may produce a floating fire hazard in extreme fire conditions.

**SECTION V - REACTIVITY DATA**

**STABILITY:** Stable  
**CONDITIONS TO AVOID:** None  
**INCOMPATIBILITY:** Avoid concentrated nitric and sulfuric acids, strong oxidizers, aldehydes, halogens and halogen compounds.  
**HAZARDOUS POLYMERIZATION:** Will not occur.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Burning can produce carbon dioxide and/or carbon dioxide. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as asphyxiant.

**SECTION VI - HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE:** The injury produced upon repeated administration is generally associated with the liver.

**SWALLOWING:** Moderately toxic. May cause nausea, vomiting, abdominal discomfort, diarrhea, drowsiness and unconsciousness.

**INHALATION:** Vapors are irritating to the eyes and respiratory tract. High concentrations may cause headaches, dizziness, drowsiness, narcosis, and unconsciousness.

**EYES:** Causes a stinging sensation and irritation, seen as excess redness and swelling of the conjunctiva.

**SKIN ABSORPTION:** No evidence of adverse effects from available information.

**SKIN CONTACT:** Brief contact is not irritating. Prolonged contact, as from clothing wet with the material, may cause drying and cracking of the skin due to a defatting action.

**OTHER HEALTH HAZARDS:** Because of its defatting properties, this material may aggravate an existing dermatitis. Breathing of vapor and/or mist may aggravate asthma and inflammatory or fibrotic pulmonary disease.

**EMERGENCY FIRST AID PROCEDURES**

**INHALATION:** Remove to fresh air. Give artificial respiration if not breathing. Qualified personnel may give oxygen if breathing is difficult. Call a physician.

**SWALLOWING:** If patient is conscious and has a gag reflex, give two glasses of water and induce vomiting. Call a physician.

**EYE CONTACT:** Immediately flush eyes with copious amounts of water for at least 15 minutes. Get medical attention.

**SKIN CONTACT:** Remove contaminated clothing and flush skin with water. Wash clothing before reuse.

**NOTES TO PHYSICIAN:** There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

**SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Extinguish and do not turn on any ignition source until area is determined to be free from explosion or fire hazards. Wear suitable protective equipment. Collect large spills for disposal. Small spills could be flushed with large amounts of water.

**WASTE DISPOSAL METHOD:** Incinerate in a furnace where permitted under appropriate federal, state, and local regulations. At very low concentrations in water, this product is readily biodegradable in a biological wastewater treatment plant.

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**SECTION VIII - CONTROL MEASURES**

**VENTILATION:** This product should be confined within closed equipment, in which case general (mechanical) room ventilation should be satisfactory. Special, local ventilation is needed at points where vapors are expected to escape to the workplace air.

**RESPIRATORY PROTECTION:** Self-contained breathing apparatus in high vapor concentrations.

**PROTECTIVE GLOVES:** Nitrile, Butyl, or PVC-coated

**EYE PROTECTION:** Monogoggles

**OTHER PROTECTIVE EQUIPMENT:** Eye bath, safety shower

**SECTION IX - SPECIAL PRECAUTIONS**

**SPECIAL STORAGE AND HANDLING PRECAUTIONS:**

**WARNING!** Flammable. Harmful if inhaled. Causes eye irritation. May cause dizziness or drowsiness. Keep away from heat, sparks, and flame. Avoid breathing vapor. Avoid contact with eyes. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

**FOR INDUSTRY USE ONLY**

**OTHER PRECAUTIONS:**

**Disposal:** At very low concentrations water (~ 10 ppm), this material is readily biodegradable in a biological wastewater treatment plant.

**PROCESS HAZARD:** Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions.

Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Further information is available in a technical bulletin entitled "Ignition Hazards of Organic Chemical Vapors."

**TRNSFER HAZARD:** Vapors of this product may be ignited by static sparks. Use proper bonding and grounding during liquid transfer as described in National Fire Protection Association document NFPA 77.

**SECTION X - REGULATORY INFORMATION**

**SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III TOXIC CHEMICAL(S)**

**SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CFR 372.**

NONE

**DISCLAIMER OF LIABILITY**

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