

Part Number(s): 300-1001-001

MATERIAL SAFETY DATA SHEET

SECTION I - MATERIAL IDENTIFICATION AND USE

Material Name Identifier:

Black MEK Ink

Supplier Name: Sterling Marking Products Inc.
 Street Address: 349 Ridout St. N.,
 City and Province: London, Ontario
 Postal Code: N6A 2N8

Telephone Numbers: (519) 434-5785, (800) 265-5957
 Fax Number: (519) 434-7866, (800) 667-6600
 Webpage: <http://www.sterling.ca>

Emergency Telephone Number: CANUTEC (613) 996-6666; Cellular *666

Material Use: Ink

TDG Shipping Information:

Printing Ink Related Material, UN1210
Class: 3 - Flammable Liquid
PG: II - Medium Danger

WHMIS Classification:

Class B, Division 2 - Flammable Liquids
 Class D, Division 2B - Skin/Eye Irritant

IATA Shipping (Air):

Printing ink
Packaging Instruction for Limited Quantity: Y305
Maximum Net Quantity (per outer package): 1L
 Refer to Pkg. Inst. No. for inner packaging type and maximum quantity per inner package.

SECTION II - HAZARDOUS INGREDIENTS

Component	CAS Registry	Toxicology	Concentration % (w/w)
Methyl ethyl ketone	78-93-3	TLV: 200ppm (skin)LT, 300ppm(skin) ST L _D 50: 2737mg/kg (oral, rat) L _C 50: 23.5g/m ³ /8H (inhalation, rat)	60-89.9
Ethanol	64-17-5	TLV: 1000ppm LT L _D 50: 3945mg/kg (oral, rat) L _C 50: 20,000ppm/10H (inhalation, rat)	5-10
Isopropyl acetate	108-21-4	TLV: 200ppm L _D 50: 3000mg/kg (oral, rat) L _C 50: Not available	5-10
Methanol	67-56-1	TLV: 200ppm (skin) LT, 250 ppm (skin)ST L _D 50: 5628mg/kg (oral, rat) L _C 50: 64,000ppm/4H (inhalation, rat)	<1
Propan-2-ol	67-63-0	TLV: 400ppm LT, 500ppm ST L _D 50: 4710mg/kg (oral, rat) L _C 50: 16,000ppm/4H (inhalation, rat)	5-10
Solvent Black Dye		TLV: Not available L _D 50: Not available L _C 50: Not available	5-10

Note: All ingredients are listed on the Domestic Substances List (DSL) and the Toxic Substances Control Act (TSCA) list.

SECTION III - PHYSICAL DATA

Physical State: Liquid
Specific Gravity: 0.81
Colour: Black
Vapour Pressure: N/A

Vapour Density: 2.5 @ air = >1

VOC: N/A
Boiling Point (°C): N/A
Auto Ignition Temperature (°C): 414
Solubility in Water (20 °C): Partial in water, soluble in organic solvents
Flash Point (°C): -4

SECTION IV - FIRE AND EXPLOSION DATA

Flammability: Flammable

LEL (% vol) lowest value of components: N/A
UEL (% vol) highest value of components: N/A

Flash Point (°C TCC): -4

Hazardous Combustion Products: A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal oxidative degradation.

Potential Hazards: HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Vapours may form explosive mixtures with air. Vapours may travel to source of ignition and flash back. Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapour explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated.

Means of Extinction Fire: CAUTION: This product has a low flash point: Use of water spray when fighting fire may be inefficient. Dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Use media suitable for surrounding fire. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.

Special Fire-Fighting Procedures: Clear area of unprotected personnel. Firefighters should wear NIOSH-approved, self-contained breathing apparatus (SCBA). Use water spray to cool fire-exposed surfaces. Also, use water to flush spilled material away from source. Vapours are harmful; stay upwind of a fire to minimize breathing of vapours, gases, fumes, or decomposition products being generated.

Unusual Fire & Explosion Hazards: Containers exposed to intense heat from fire must be cooled to prevent vapour pressure build-up that may result in container rupture. Cool containers exposed directly to flames with large quantities of water as needed to prevent weakening of container itself. Never use a welding or cutting torch on or near container.

Empty Container Warning: "Empty" containers contain residues (liquid, solid, and/or vapour) that can be dangerous. DO NOT pressurize, cut, weld, braze, grind, drill, solder, or expose containers to heat, sparks, open flame. They may explode and cause injury and/or death. DO NOT attempt to clean drums. Residues are difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioned. Dispose of all containers in an environmentally safe way and in accordance with governmental regulations. For work on tasks, refer to OSHA regulations ANSI Z49.1 and other governmental and industrial references pertaining to cleaning, repairing, welding, or other operations.

SECTION V - REACTIVITY DATA

Stability: Material is stable under normal conditions.

Incompatibility: Strong acids, strong bases. Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: Oxides of carbon, oxides of nitrogen, and other organic combustion products.

SECTION VI - TOXICOLOGICAL PROPERTIES

Routes of Entry: Eye, Skin, Inhalation, Ingestion

Effects of Acute Exposure:

Eye: Irritating to the eyes causing a burning sensation, redness, swelling and/or blurred vision.

Skin: Prolonged or repeated skin contact can cause defatting and drying of the skin which may result in a burning sensation and a dried, cracked appearance.

Inhalation: Vapours may be irritating to respiratory system. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea, and loss of coordination. Continued inhalation may result in unconsciousness and death.

Ingestion: May be harmful if swallowed. Liquid can directly enter the lungs (aspiration) when swallowed or vomited. Serious lung damage and possibly fatal chemical pneumonia (chemical pneumonitis) can develop if the occurs.

Effects of Chronic Exposure:

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Repeated and prolonged overexposure, and/or individual sensitivity, may increase the potential for, and degree of, adverse health effects.

Irritancy: Hazardous by WHMIS criteria

Respiratory Tract Sensitization: Insufficient data available

Carcinogenicity: Not hazardous by WHMIS criteria.

Synergistic Materials: Insufficient data available

Reproductive Effects: Methyl ethyl ketone has been shown to cause developmental effects (delayed ossification) to the fetuses when female rats were exposed to vapours of 3,000 ppm, (15 times the occupational exposure limit)

Teratogenicity: Insufficient data available

Mutagenicity: Insufficient data available

SECTION VII - PREVENTATIVE MEASURES

Gloves: Solvent impermeable gloves are required for repeated or prolonged contact.

Eye Protection: Wear safety glasses where contact with the eye is anticipated. Chemical safety goggles should be worn whenever there is a possibility of splashing or other contact with the eyes.

Respiratory Protection: Proper selection of respiratory protection depends upon many factors, including duration and level of exposure and conditions of use. In general, exposure to organic chemicals, such as those contained in this product, may not require the use of respiratory protection, if used in a well-ventilated area. In areas of restricted ventilation, a NIOSH approved organic vapour respirator may be required. Under certain conditions, such as spraying, a mechanical pre-filter may also be required. In confined areas, or in high exposure situations, a NIOSH/MSHA approved air-supplied respirator may be required. If the TLV's listed in Section II are exceeded, use a properly fitted NIOSH/MSHA approved respirator with an appropriate protection factor.

Use material only with adequate ventilation to prevent exceeding the recommended exposure limit or a build-up of explosive concentrations in the air. Use explosion proof equipment. No smoking or open lights. Air-dry contaminated clothing in a well ventilated area before laundering.

Other Protective Equipment Recommended: Safety shower and eye wash fountain in the work area.

Engineering Controls: Use general dilution and local exhaust in sufficient volume, and pattern to keep concentrations of hazardous ingredients listed in Section II below the lowest exposure limit stated. Fumes emitted while baking this product must be properly vented.

Leak and Spill Procedure:

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas; run-off from fire control or dilution water may cause pollution. A vapour suppressing foam may be used to reduce vapours. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean, non-sparking tools to collect absorbed material.

Waste Disposal: Review federal, provincial and local government requirements prior to disposal. Use a licensed waste treatment facility or reclaimer.

Storage Requirements: Store in a tightly closed container. Store away from incompatible materials. Store in a cool, dry, well-ventilated area. Ensure storage area has adequate ventilation, and no source of open flame or sparks. Limit quantity of the material in storage. Ensure all bottles are properly labeled.

Special Precautions: Ground all equipment to prevent static discharge. Keep containers away from heat, sparks, and open flame. Wash thoroughly with soap and water after handling material.

SECTION VIII - FIRST AID

Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Eye: Immediately flush eyes with a directed stream of water for 15 minutes, while holding eyelids open. If irritation or redness develops or persists, get medical attention.

Skin: Flush affected areas with large amounts of water, remove contaminated clothing. Wash affected areas thoroughly with soap and water. If irritation or redness develops or persists, get medical attention.

Inhalation: Remove victim to fresh air. If breathing difficulties develop, administer oxygen and get medical attention. If victim is not breathing, administer artificial respiration and get medical attention.

Ingestion: DO NOT INDUCE VOMITING. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs (Aspiration pneumonitis can be fatal). If victim conscious and alert, give victim lukewarm water. GET IMMEDIATE MEDICAL ATTENTION.

SECTION IX - PREPARATION AND ADDITIONAL INFORMATION

Prepared by: Sterling Marking Products Inc.
Quality Planning and Engineering Department
349 Ridout St., N.
London, Ontario N6A 2N8

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Information for this material safety data sheet was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond the control of the supplier, it is assumed that user of this material has been fully trained according to the mandatory requirements of WHMIS. If user requires independent information on ingredients in this or any other material, we recommend contact with the Canadian Centre for Occupational Health and Safety (CCOHS) in Hamilton, Ontario (1-800-263-8276) or CSST in Montreal, Quebec (514-873-3990).