

Part Number(s): 112-4

MATERIAL SAFETY DATA SHEET

SECTION I - MATERIAL IDENTIFICATION AND USE

Material Name Identifier:

112 (Green) Ink, Other Name: S-111

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) 434-9516, (800) 667-6600
 Webpage: <http://www.sterling.ca>
 E-Mail: sales@sterling.ca

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

Material Use: **Ink**

TDG Shipping Information:

AEROSOLS, UN1950

Class: 2.1 - Flammable Gases

PG: None

WHMIS Classification:

Class B - Division 5 - Flammable Aerosols
 Class D, Division 2B - Skin/Eye Irritant

IATA Shipping (Air):

AEROSOLS
Packaging Instruction for Limited Quantity: Y203
Maximum Net Quantity (per outer package): 30kg, gross
 (Inner package not to exceed 1L each)
 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)
Propane	74-98-6	ACGIH TLV – TWA: 2500 ppm L _D 50: Not available L _C 50: Not available	13
Butane	106-97-8	ACGIH TLV-TWA: 800 ppm L _D 50: Not available L _C 50: Not available	12
V.M. & P. Naptha	64742-89-9	ACGIH TLV: 300ppm L _D 50: Not available L _C 50: Not available	7
p-Chlorobenzotrifluoride	98-56-6	ACGIH TLV-TWA: Not available L _D 50: Not available L _C 50: Not available	12
Acetone	67-64-1	ACGIH TLV-TWA: 500ppm; STEL 750ppm L _D 50: 5800mg/kg (oral, rat) L _C 50: Not available	40
Amorphous Precipitated Silica	112926-00-8	ACGIH TLV-TWA: 10 mg/m ³ as dust L _D 50: Not available L _C 50: Not available	2

Titanium Dioxide	13463-67-7	ACGIH TLV-TWA: 10 mg/m ³ as dust L _D 50: Not available L _C 50: Not available	0.8
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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: Aerosol, liquid	% Volatile (by Volume): 90
Specific Gravity: 0.78	Boiling Point (°C): -18
Colour: Green	Product Weight: 6.49 lb/gal (777 g/L)
Evaporation Rate: Faster than ether	Solubility in Water (20 °C): Not available
Vapour Density: Heavier than air	Flash Point (°C): -18

SECTION IV - FIRE AND EXPLOSION DATA

Flammability: Extremely Flammable
LEL (% vol) lowest value of components: 0.9
UEL (% vol) highest value of components: 12.8
Hazardous Combustion Products: Oxides of carbon, oxides of nitrogen, and other organic combustion products.

Flash Point (°C): -18

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. Do not puncture, incinerate, or expose to temperatures above 48.9°C.**

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, 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.

SECTION V - REACTIVITY DATA

Stability: Stable
Incompatibility: None known.
Hazardous Decomposition Products: Oxides of carbon, oxides of nitrogen, and other organic combustion products.

SECTION VI - TOXICOLOGICAL PROPERTIES

Routes of Entry: Eye, Skin, Inhalation.

Effects of Acute Exposure:

Eye: Will cause irritation.

Skin: Prolonged or repeated exposure may cause irritation.

Inhalation: Irritation of the upper respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

Ingestion: Not an expected route of exposure, due to the nature of the container.

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: Insufficient data available

Synergistic Materials: Insufficient data available.

Reproductive Effects: Insufficient data available.

Teratogenicity: Insufficient data available.

Mutagenicity: Insufficient data available.

SECTION VII - PREVENTATIVE MEASURES

Gloves: None required for normal application of aerosol products where minimal skin contact is expected. 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.

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: Remove all sources of ignition. Ventilate the area. Remove with inert 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. **Containers may explode when heated. Do not puncture, incinerate, or expose to temperatures above 48.9°C.**

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: Not an expected route of exposure, due to the nature of the container. If exposure occurs: **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).