

Part Number(s): TPU

MATERIAL SAFETY DATA SHEET

SECTION I - MATERIAL IDENTIFICATION AND USE

Material Name Identifier:

Tampapur TPU

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>

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

Material Use: **Pad Printing Ink**

TDG Shipping Information:

PAINT RELATED MATERIAL

Class: **UN1263, Class 3**

WHMIS Classification:

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

SECTION II - HAZARDOUS INGREDIENTS

Component	CAS Registry	Toxicology	Concentration % (w/w)
Butylglycolate	7397-62-8	TLV: Not Available L _D 50: 4595 mg/kg (oral, rat) (RTECS) L _C 50: Not Available	1-10
Butylacetate	123-86-4	ACGIH TLV-TWA 150 ppm; STEL 200 ppm L _D 50: 10768 mg/kg (oral, rat) (RTECS) L _C 50: 390 ppm/4H (inhalation, rat) (RTECS)	1-15
Solvent Naphtha	64742-95-6	TLV: Not Available L _D 50: 8400 mg/kg (oral, rat) (RTECS) L _C 50: >5mg/l:4 hours (inhalation, rat) (RTECS)	1-15
Ethylbenzene	100-41-4	ACGIH TLV-TWA 100 ppm; STEL 125 ppm L _D 50: 3500 mg/kg (oral, rat) (RTECS) L _C 50: 55000 mg/m ³ /2H (inhalation, rat) (RTECS)	0-5
Xylene	1330-20-7	ACGIH TLV-TWA 100 ppm; STEL 150 ppm L _D 50: 4300 mg/kg (oral, rat) (RTECS) L _C 50: 5000 ppm/4H (inhalation, rat) (RTECS)	1-15
2-Methoxy-1-methylethyl acetate	108-65-6	TLV: Not Available L _D 50: 8532 mg/kg (oral, rat) (RTECS) L _C 50: Not Available	0-10
Naphta (Petroleum) Hytrotreated Heavy	64742-48-9	TLV: Not Available L _D 50: 2000mg/kg (oral, rat) L _C 50: Not Available	0-5

2-(2-Butoxyethoxy) ethyl dihydrogen Phosphate, compound, n-dimethyl-cyclohexylamine	94200-24-5	TLV: Not Available L _D 50: 1600 mg/kg (oral, rat) L _C 50: Not Available	0-5
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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: Liquid Specific Gravity (20 °C): 1-1.8 g/ cm ³ Colour: colour depending on ink Viscosity(20 °C): > 150 seconds (DIN-cup 4mm) Vapour Pressure (20 °C): 7 hPa at 20°C Evaporation Rate : Not Available	% Volatile: Not available Boiling Point (°C): 124 Odour: solvent Solubility in Water (20 °C): Not available Flash Point (°C): 36 Vapour Density (Air =1) : heavier vs. air
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SECTION IV - FIRE AND EXPLOSION DATA

Flammability: Flammable LEL (% vol) lowest value of components: 0.7 UEL (% vol) highest value of components: 8.0 Hazardous Combustion Products: Carbon monoxide, Carbon dioxide, soot nitrogen oxides, metal oxides, halogenated hydrogens.	Flash Point (°C TCC): 36
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Conditions of Flammability: Avoid heat, sources of ignition, static electricity, and electrical equipment. Keep containers closed. Containers may explode under extreme heat. Application to hot surfaces requires special precautions. Do not smoke near material.

Means of Extinction Fire: Carbon dioxide, foam, sand, chemical power. Water jet should not be used because water is not mixable with a lot of organic solvents.

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: Not explosive regarding sensitivity to mechanical impact. Solvent vapour in air may explode within flammable limits due to static discharge.

SECTION V - REACTIVITY DATA

Stability: Stable Incompatibility: Strong acids, alkalis, or oxidizers Hazardous Decomposition Products: When exposed to high temperatures, carbon dioxide, carbon monoxide and soot can be produced.
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SECTION VI - TOXICOLOGICAL PROPERTIES

Routes of Entry: Eye, Skin, Inhalation, Ingestion

Effects of Acute Exposure:

Inhalation may cause head-ache, dizziness, tiredness, nausea. High concentration may cause vomiting, breathing difficulties, unconsciousness. Irritating and defatting effect on skin, danger of inflammation. Possibility of skin resorption. Irritating to eyes. With prolonged contact possibility of corneal opacity. Ingestion may cause nausea, indigestion, vomiting, diarrhea.

Effects of Chronic Exposure:

May effect liver, kidneys and central nervous system in case of repeated overexposure.

Irritancy: Vapour may irritate respiratory tract; liquid is irritating to skin and eyes.

Sensitization: No

Carcinogenicity: no

Synergistic Materials: No data

Reproductive Effects: no

Teratogenicity: no

Mutagenicity: no

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.

Other Protective Equipment Recommended: Eye wash station 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.

Leak and Spill Procedure:

Ventilate area. Cover with humid liquid absorbing material (eg. Diatomaceous earth, sand). After about one hour, take off into waste bin, but do not cover (carbon dioxide development). Keep damp and allow to stand in a secure area in the open air, for a few more days.

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

Storage Requirements: Recommended storage temperature: 15-20° C. Store in a tightly closed container. Store away from incompatible materials. Store in a cool, dry, well-ventilated area. 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. Wash hands thoroughly before eating, drinking or using toilet facilities. Avoid contact with skin and eyes. Use re-greasing skin cream. Do not empty into drains.

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.

Take off all contaminated clothes.

Eye: Immediately flush eyes with a directed stream of water for at least 10-15 minutes, while holding eyelids open. Seek medical attention.

Skin: Flush affected areas with large amounts of water, remove contaminated clothing. Wash affected areas thoroughly with soap and water. Do not use solvents or thinner to wash! 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: **GET IMMEDIATE MEDICAL ATTENTION. Keep at rest. Do not induce Vomiting.**

SECTION IX - PREPARATION AND ADDITIONAL INFORMATION

Prepared by: Sterling Marking Products Inc.
Quality Planning and Engineering Department
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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).