

SAFETY DATA SHEET



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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Flo-Mark Black Ink
Product Number: TIS-260
Date Prepared: July 15, 2016
Responsible name: Regulatory and Safety Compliance
Relevant uses of this product: Marking and Grade Stamp Ink for the Forest Products Industry

SECTION 2. HAZARDS IDENTIFICATION

OSHA/HCS Status: This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the Substance or mixture: Contains Hexylene Glycol

GHS label elements:
Signal Word: Warning



Hazard Pictogram(s):

Hazard statements: Causes serious eye irritation

Precautionary Statements:

General: Read label before use. Keep out of reach of children. If medical advice is needed have product container, label or this SDS at hand.
Wash thoroughly after handling
Wear eye protection /face protection
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get Medical advice/attention..

Other Hazards:

Other hazards which do not result in classification: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be mildly irritating to skin, eyes and respiratory system.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

<u>Ingredient name:</u>	<u>Common Name and synonyms</u>	<u>CAS#</u>	<u>Concentration:</u>
Hexylene Glycol	2-Methyl-2,4 pentanediol	107-41-5	60-70%
Ethyl-S-Lactate		687-47-8	10%

Occupational exposure limits, if available are listed in Section 8.

Any concentration shown as a range is to protect confidentiality or is due to batch variation. Based on intended use and resulting curing of this product, exposure to the above substances should only occur during sanding or other disruptive forces on this product that would produce dusts or other respirable residues. There are no additional ingredients present in this product that require reporting in this section.

SECTION 4. FIRST AID MEASURES

Description of necessary first aid measures:

EYE CONTACT: Immediately flush with large quantities of clean water for at least 15 minutes, lifting upper and lower eyelids occasionally. Check for and remove any contact lenses. Get medical attention if irritation persists.

INHALATION: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur and persist.

SKIN CONTACT: Flush contaminated skin immediately with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

INGESTION: DO NOT induce vomiting. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed:

Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct skin contact may cause slight or mild, transient irritation. Inhalation of high concentrations may cause dizziness, disorientation, incoordination, narcosis, nausea or narcotic effects. Prolonged overexposure may cause slight liver and kidney effects, such as increased organ weights.

Indication of immediate medical attention and special treatment needed, if necessary:

Notes to physician: Treat symptomatically.

Specific treatments No specific treatment.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media:

Suitable extinguishing media: Use water fog or fine spray, foams, carbon dioxide or dry chemical.

Unsuitable extinguishing Media:

Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture:

Vapors are heavier than air and may spread along floors Vapors may travel considerable distance to a source of ignition and flash back.

Conditions of Flammability: Burning may produce irritating, toxic and obnoxious fumes.

Flammability classification (OSHA 29 CFR 1910.106) Not classified as flammable.

Hazardous thermal decomposition products:

Carbon Oxides

Special protective actions by fire-fighters:

Promptly isolate the scene by removing all persons from the area of the incident there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face-piece operated in positive pressure mode with flame retardant coat, helmet with face shield, gloves, rubber boots in enclosed areas.

Remark: This product is non-flammable-non-combustible.

SECTION 6. ACCIDENTAL SPILL OR RELEASE PROCEDURES

Personal precautions, protective equipment and emergency procedures:

Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Wear suitable protective equipment. Refer to protective measures listed in Sections 7 and 8.

Environmental precautions:

Ensure spilled material and runoff does not enter drains, sewers or waterways.

Methods and materials for containment and cleaning up:

Small spill: Stop leak if without risk. Move containers from spill area. Absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage

Technical Industrial Sales, (TIS-260)

with non-combustible, absorbent e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Use only in well-ventilated areas. Wear appropriate protective equipment during handling. Avoid contact with eyes and skin and clothing. Keep away from extreme heat and flame. Keep containers tightly closed when not in use. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities:

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Incompatible Materials: Oxidizing agents Reducing agents Acids, Chlorates, Anhydrides.

SECTION 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION EQUIPMENT

Exposure Limits:

<u>Chemical Name:</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>
	<u>TWA</u>	<u>PEL</u>
Hexylene Glycol	25 ppm (Ceiling)	25 ppm (Ceiling) (final rule limit)
	<u>STEL</u>	<u>STEL</u>
	N/Avail	N/Avail

Exposure Controls:

Ventilation and engineering measures : Use in a well-ventilated area. Use general or local exhaust ventilation to Maintain air concentrations below recommended exposure limits. Keep temperature at or below 138 ° F.

Respiratory protection: If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators.

Individual protection measures:



Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory at the end of the working period. Appropriate techniques should be used to remove

Technical Industrial Sales, (TIS-260)

potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Approved waterless hand cleaners are effective for removing this material.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection. Safety glasses with side shields. (EN 166)

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard. Advice should be obtained from glove suppliers.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

General hygiene considerations: Avoid breathing vapors or mists. Avoid contact with skin, eyes, and clothing. Wash contaminated clothing before reuse. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid Marking Ink Concentrate
Color:	Black
Odor:	Mild Characteristic Ester Odor
Boiling Point:	>300 deg. F
Vapor Pressure:	No Information Available
Vapor Density:	No Information Available
Specific Gravity:	7.83 (lbs/gal)
Density:	.94
% Solids Weight:	22-23%
Percent Volatiles:	Approx. 77% by vol.
VOC:	0%
HAPS:	None
Evaporation Rate:	Not determined for product
PH:	Not Available for Product
Flash Point:	Initial 138 F
Flammability:	Combustible Liquid
Solubility:	Not dispersible in Water
Viscosity:	Set to Customer Requirements
Evaporation Rate: (BuAcet=1)	1

SECTION 10. STABILITY AND REACTIVITY

Reactivity:	Not available for product
Chemical stability:	This product is stable under recommended storage conditions
Hazardous reactions:	Will not occur
Conditions to Avoid:	Acids, Strong bases Organic materials
Incompatibility:	No specific data

Technical Industrial Sales, (TIS-260)

Hazardous Decomposition: Under normal use, hazardous decomposition products should not be produced.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation: YES
Routes of entry skin and eyes: YES
Routes of ingestion: YES
Routes of exposure skin absorption: NO

Potential Health Effects:

Signs and symptoms of short term (acute exposure):

Signs and symptoms Inhalation: Inhalation of high concentrations may cause dizziness, disorientation, incoordination, narcosis, nausea or narcotic effects.

Signs and Symptoms Ingestion:

Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea.

Signs and symptoms skin:

Causes mild skin irritation. Symptoms may include mild redness and swelling.

Signs and symptoms eyes:

Causes serious eye irritation. Symptoms may include redness, pain, tearing and conjunctivitis.

Potential Chronic Health Effects:

Prolonged or repeated contact may cause drying, cracking and defatting of the skin.

Mutagenicity:

Not expected to be mutagenic in humans

Carcinogenicity:

No Components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects & Teratogenicity:

Not expected to cause reproductive effects.

Sensitization to material:

Not expected to be a skin or respiratory sensitizer.

Specific target organ effects:

This material is not classified as hazardous under U.S. OSHA regulations (29 CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Medical Conditions aggravated by Overexposure: None Known

Synergistic materials:

Not Available

Toxicological data:

See Below for toxicological data on the substance.

Technical Industrial Sales, (TIS-260)

<u>Chemical Name</u>	<u>LC₅₀ (4 hr)</u> <u>inhal, rat</u>	<u>LD₅₀</u> <u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Hexylene Glycol	N/Avail.	3690 mg/kg	12,260 mg/kg
Ethyl (S)-2-hydroxypropionate	>5.6 mg/L (Rat) 4 h	>2000 mg/kg (Rat)	NA

Other important toxicological hazards: None known or reported by the manufacturer.

Contains no ingredient listed as a carcinogen.

Not known to cause heritable genetic damage.

STOT single exposure: May cause respiratory irritation

STOT repeated exposure: No known effect.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: Do not allow material to contaminate ground water system. See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

<u>Ingredients</u>	<u>CAS No.</u>	<u>Toxicity to Fish</u>	<u>M Factor</u>
Hexylene Glycol	LC50 / 96 h 107-41-5 8510 mg/L Mosquito Fish	NOERC /21 day N/Avail	None
Ethyl S-2-Hydroxypropionate	687-47-8	LC50: 32 mg/l 96h Pimephales promelas	

Persistence and degradability: Readily Biodegradable.

Bioaccumulation Potential: No Information available

Other adverse effects: No known significant effects or critical hazards

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods:

EPA HAZARDOUS WASTE CODE: NONE

Generation of wastes should be avoided or minimized. Product must be disposed of properly by a licensed waste disposal contractor under Federal and State regulations for industrial wastes. Recommended disposal is incineration or Disposal in a Class D landfill of absorbed wastes pending approval. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

As delivered, this product when spilled, released or disposed of, is a non-hazardous waste as defined in RCRA regulations 40 CFR Part 261.

SECTION 14. TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: TIS-260 Flo-Mark Black Ink

Technical Industrial Sales(TIS-260)

Regulatory Information:

	UN Number:	UN proper shipping Name:	Transport Hazard Class:	Packing Group:	Label:
49 CFR/DOT:	None	Not Regulated	Not Regulated	None	None
TDG:	None	Not Regulated	Not Regulated	None	None
IMOG	None	Not Regulated	Not Regulated	None	None
ICAO/IATA	None	Not Regulated	Not Regulated	None	None

Special Precautions for user: Keep away from heat and open flames. – No smoking

Environmental Hazards: See ECOLOGICAL INFORMATION, Section 12.

Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code: Not Available

SECTION 15. REGULATORY INFORMATION

U.S. Federal Information

Components Listed Below are present on the following U.S Federal Chemical Lists:

Ingredients:	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ)(40 CFR 117.302)	SARA Title III Sec. 302 40 CFR 355	SARA Title III: SEC 313 40 CFR 372
Hexylene Glycol	107-48-5	Yes	None	None	No

SARA TITLE III: Section 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Acute Health Hazard

US STATE RIGHT TO KNOW LAWS:

The following chemicals are specifically listed by Individual States:

Ingredients:	CAS #:	California Proposition 65 Listed	Type of Toxicity	State "Right to Know" Lists					
				CA	MA	MN	NJ	PA	RI
Hexylene Glycol	107-41-5	No	N/A	Yes	Yes	Yes	Yes	Yes	Yes

Canadian Information:

WHMIS Information: Refer to Section 2 for a WHMIS Classification for this product
Canadian Environmental Protection Act (CEPA) information: All Ingredients listed appear on the Domestic Substances List. (DSL).

International Information:

Components listed below are present on the following International Inventory list:

Ingredient:	CAS#	European EINECS	Australia AICS	Phillipines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NZ IOC
Hexylene Glycol	107-41-5	203-489-0	Present	Present	(2)-340	KE-24702	Present (19504)	SR003002

SECTION 16. OTHER INFORMATION

Updated: August 26, 2016

National Fire and Protection Association (U.S.A) HMIS

Health	1	Health	1
Flammability	1	Fire	1
Instability/ Reactivity	1	Reactivity	0
		Physical Hazard	B

Notice to reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.