Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

1. Product and Company Identification	
Product Name	PolyColor Screen Ink – Brown
Manufacturer's name	Horizons Incorporated
Address	18531 South Miles Road Cleveland, Ohio 44128
Emergency Telephone Number	(216) 475-0555
Information Telephone Number	(216) 475-0555

2. Hazards Identification	
GHS Classification	
H226	Flammable liquid – Category 3
H302	Acute toxicity, Oral – Category 4
H332	Acute toxicity, Inhalation – Category 4
H312	Acute toxicity, Dermal – Category 4
H315	Skin corrosion/irritation – Category 2
H320	Serious eye damage/eye irritation – Category 2B
H317	Skin sensitization – Category 1B
GHS Label Elements	
Hazard Pictogram	
Signal Word	Danger
Hazard Statements	
H226	Flammable liquid and vapor
H302+H332	Harmful if swallowed or inhaled
H312	Harmful in contact with skin
H315	Causes skin irritation
H320	Causes eye irritation
H317	May cause an allergic skin reaction
Precautionary Statements	
P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking
P233	Keep container tightly closed
P280	Wear protective gloves/clothing and eye protection
P264	Wash thoroughly after handling
P270	Do not eat, drink, or smoke when using this product
P261	Avoid breathing fume, mists, & vapors
P271	Use only in a well-ventilated area
P272	Contaminated work clothing should not be allowed out of the workplace
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P333+P337+P313	If skin rash or eye irritation occurs or persists, get medical advice/attention
P301+P330	IF SWALLOWED: Rinse mouth.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing
P362+P364	Take off contaminated clothing and wash before reuse
P312	Call a poison center/doctor if you feel unwell
P403+P235	Store in a well-ventilated place. Keep cool

3. Composition/Information on Ingredients

Components/ Materials	CAS Number	%
Diethylene Glycol Monobutyl Ether	112-34-5	<15
Propylene Glycol Methyl Ether Acetate	108-65-6	<55
Cyclohexanone	108-94-1	<8
2-Butoxyethanol	111-76-2	10
Solvent Blue 45	Not available	3
Solvent Orange 62	Not available	3
Chromium III (as an integral part of the dye molecule)	7440-47-3	<0.3

4. First Aid Measures

Inhalation	Promptly remove to fresh air. If breathing is difficult or irregular, give oxygen. If breathing is stopped, administer artificial respiration. Get medical attention immediately.
Skin Contact	Wash affected area with soap & water after contact. Rinse immediately with plenty of water for at least 15 minutes Remove & wash contaminated clothing before reuse. If irritation develops, get medical attention.
Eye Contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Keep eyes wide open while rinsing. Get medical attention if irritation develops & persists.
Ingestion	Rinse mouth with water. DO NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

5. Fire Fighting Measures

Flammable Properties	Flash point – >111°F (44°C) TCC
Flammable Limits	
Lower Flammable Limit	0.9 Vol%
Upper Flammable Limit	24.6 Vol%
Hazardous Combustion Products	May include but not limited to: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sulfur dioxide, Chromium oxides.
Unusual Fire/Explosion Hazards	Combustion products may be irritating to the skin, eyes, nose, and respiratory system. Vapor may travel back to ignition source and flashback. Product may be sensitive to static discharge, which could result in fire or explosion.
Extinguishing Media	Foam. Carbon Dioxide (CO_2). Dry chemical. Water fog. Do not use direct water stream, which may spread fire. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special Firefighting Procedures	Wear self-contained breathing apparatus & protective clothing to prevent contact with skin and eyes. Cool containers with water spray. Fire or intense heat may cause violent rupture of packages.

6. Accidental Release Measures

Small Spill	Absorb spill with an inert material and place in a chemical waste container
Large Spill	Remove all sources of ignition. Ventilate area. Contain spilled liquid with sand or earth. Absorb spill with an inert material and shovel into a chemical waste container. Prevent runoff from entering into sewers and ditches which lead into natural waterways. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

7. Handling and Storage

Handling	Avoid contact with eyes and clothing. Keep container closed. Use only in a well ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated breathing of mists and vapors. Avoid prolonged or repeated contact with skin. Keep away from ignition sources. Take measures to prevent build-up of electrostatic charge.
Storage	Store between 65-85ºF. Keep containers sealed when not in use.

8. Exposure Control/Personal Protection

Exposure Limits

Chemical Name	CAS No.	OSHA	ACGIH	NIOSH
Diethylene Glycol Monobutyl Ether	112-34-5	ND	ND	ND
Propylene Glycol Methyl Ether Acetate	108-65-6	ND	ND	ND
Cyclohexanone	108-94-1	50 ppm TWA	20 ppm TWA (skin)	25 ppm TWA; 700 ppm IDLH
2-Butoxyethanol	111-76-2	120 mg/m3 TWA	20 ppm TWA	700 ppm IDLH
Solvent Blue 45		ND	ND	ND
Solvent Orange 62		ND	ND	ND
Chromium III compounds	7440-47-3	0.5mg/m3 TWA	0.5 mg/m3 TWA	ND
				ND – Not Determined

Engineering Controls	Control airborne concentrations below the exposure limits. Use only with adequate ventilation. Local exhaust ventilation may be necessary. Keep containers covered whenever possible. Where explosive mixtures may be present, equipment safe for such locations should be used.
Respiratory Protection	When respiratory protection is required, use a NIOSH approved air-purifying respirator equipped with an organic vapor canister. For emergency and other conditions where exposure limits may be greatly exceeded, use an approved positive-pressure, self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply.
Skin Protection	Wear protective gloves and clothing. Use of natural rubber (latex) gloves is NOT recommended. Use solvent-resistant apron & boots, if needed.
Eye Protection	Use safety glasses with side shields or, preferably, chemical goggles. Contact lens use is not recommended.

9. Physical and Chemical Properties

Boiling Point	302°F - 446°F (150°C - 230°C)
Specific Gravity	0.95
% Volatiles	74%
Solubility in Water	Insoluble
pH	No information available
Odor	Mild, ester-like odor
Form	Liquid
Color	Brown
VOC	5.86 lbs/gal coating (702 g/L)

10. Stability and Reactivity

Chemical Stability	Stable under normal storage conditions
Conditions to Avoid	Keep product away from heat, sparks, static electricity, and open flame.
Incompatibility	Strong acids. Strong bases. Strong oxidizing agents.
Hazardous Decomposition Products	Burning can produce carbon monoxide, carbon dioxide, nitrogen oxides, sulfur dioxide, & chromium oxides when heated to decomposition.
Hazardous Polymerization	Will not occur

11. Toxicological Information

Results of component toxicity test performed:

Data for Diethylene Glycol Monobutyl Ether (CAS 112-34-5)	Acute Toxicity Data: Oral rat LD50: >2000 mg/kg; Dermal rabbit LD50: >2000 mg/kg; Repeated Dose Toxicity: Causes haemolysis of red blood cells &/or anemia in animals, but not considered relevant to humans.
Data for Propylene Glycol Methyl Ether Acetate (CAS 108-65-6)	Acute Toxicity Data: Oral rat LD50: 8532 mg/kg; Dermal rabbit LD50: >5000 mg/kg;
Data for Cyclohexanone (CAS 108-94-1)	Acute Toxicity Data: Oral rat LD50: 1800 mg/kg; Oral mouse LD50: 1400 mg/kg; Dermal rabbit LD50: 1 ml/kg; Inhalation rat LC50: 8000 ppm/4H; Draize rabbit, eye: 20 mg, severe. ACGIH A3 – Confirmed animal carcinogen with unknown relevance to humans.
Data for 2-Butoxyethanol (CAS 111-76-2)	Acute Toxicity Data: Oral rat LD50: 470 mg/kg; Skin rabbit LD50: 220 mg/kg; Inhalation rat LC50: 2.21 mg/L (4 hr)
Data for Solvent Blue 45	Acute Toxicity Data: Oral rat LD50: >2000 mg/kg; Dermal rat LD50: >2000 mg/kg.
Data for Solvent Orange 62	Acute Toxicity Data: Oral rat LD50: >5000 mg/kg.

12. Ecological Information

The following properties are ESTIMATED from the components of the preparations.

Potential Toxicity:	
Toxicity to Salmo gairdneri (LC50):	100-180 mg/L /96 Hr
Toxicity to Daphnia magna (EC50):	>100 mg/L /48 Hr
Toxicity to D. subspicatus (IC50):	> 100 mg/L 24 Hr
Persistence and degradability	ND
Chemical Oxygen Demand (COD)	ND
Biochemical Oxygen Demand (BOD)	ND
Chemical Fate Information	ND

13. Disposal Considerations

Liquid material should be disposed as flammable waste. Note that Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.
Contact a licensed professional waste disposal service to dispose of large quantities of this material

14. Transport Information

Proper Shipping Name	Printing Ink
UN No.	UN1210
IATA Class	Class 3
Packing Group	III

In the U.S. & Canada, this material may be reclassified as a combustible liquid and is not regulated, via surface transportation, in containers less than 119 gallons or 450 liters [per 49 CFR 173.150 (f)] [per Transportation of Dangerous Goods Regulations/Clear Language Part 1.33].

15. Regulatory Information

U.S. Federal Regulations	
TSCA Section 8 (b) Inventory	All components are listed on the TSCA Chemical Inventory
OSHA	Hazardous by definition of Hazard Communications Standard (29CFR1910.1200)
SARA Hazard Category	
SARA 302 Components	No listed components
SARA 313 Components	Diethylene glycol monobutyl ether, 2-Butoxyethanol & Chromium III compounds are subject to the reporting requirements of Section 313 of SARA 313Title III and 40CFR.
SARA 311/312 Hazards	Acute Health Hazard, Chronic Health Hazard, Fire Hazard
Clean Air Act	Diethylene glycol monobutyl ether is listed as a hazardous air pollutant (HAP).
Clean Water Act	Contains priority pollutant chromium at concentrations >0.1%
CERCLA	Cyclohexanone, 5000 lb final RQ Chromium, 5000 lb final RQ.
State Regulations	
Massachusetts Right To Know Components	2-Butoxyethanol, Cyclohexanone
Pennsylvania Right To Know Components	2-Butoxyethanol, Cyclohexanone, Diethylene glycol monobutyl ether
New Jersey Right To Know Components	2-Butoxyethanol, Cyclohexanone
California Proposition 65 Components	This product does not contain any chemical known to the State of California to cause cancer or reproductive harm.

16. Other Information

HMIS
H – 2
F – 2
R – 0
PPE – B

The information in this material safety data sheet should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering, operations & management, and for persons working with or handling this product. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions but does not purport to be all inclusive. Horizons Incorporated shall not be held liable for any damage resulting from handling or from contact with the above product.