

MATERIAL SAFETY DATA SHEET



Revision date: October 3, 2014

SECTION 1: IDENTIFICATION

Product Identifier: Black Maxlight Forever Ink
Product Code(s): 7744
Product Use: Ink for marking on porous surfaces
Chemical Family: Mixture
Manufacturer's name and address: Identity Group
1480 Gould Drive
Cookeville, TN, USA 35806
Information Telephone #: 931-432-4000 (Monday – Friday 8:00 am – 5:00 pm Central Standard Time)
24 Hr. Emergency Telephone #: Chemtrec 1-800-424-9300 (Within Continental U.S.)
Chemtrec 1-703-527-3887 (Outside U.S.)

SECTION 2: HAZARDS IDENTIFICATION

Classification:

Serious eye damage/eye irritation	Category 1
Skin irritation	Category 2
Acute toxicity Oral	Category 3
Acute toxicity, Dermal	Category 3
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1
Carcinogenicity	Category 2

Labeling:

Symbols:



Signal Word: Danger

Hazard statements:

H301 + H311	Toxic if swallowed or in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H341	Suspected of causing genetic defects
H351	Suspected of causing cancer
H410	Very toxic to aquatic life with long lasting effects

Precautionary statements:

- P202 Do not handle until all safety precautions have been read and understood
- P264 Wash skin thoroughly after handling
- P273 Avoid release to the environment
- P281 Use personal protective equipment as required
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/attention
- P337 + P313 If eye irritation persists: Get medical advice/attention.
- P362 Take off contaminated clothing and wash before reuse.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS #	Wt. %	GHS Classification	Hazard Statements	Pictograms
Hexylene glycol	107-41-5	5 - 10	Skin Irritation (Cat 2) Eye Irritation (Cat 2A)	H315 H319	
2-Ethyl-1,3-hexanediol	94-96-2	30 - 50	Serious eye damage/eye irritation (Cat. 1)	H302 + H312 H316 H318	
Aniline	62-53-3	< 0.20	Flammable Liquids (Cat 4) Acute toxicity, Oral (Cat. 3) Acute toxicity, Inhalation (Cat. 2) Acute toxicity, Dermal (Cat. 3) Skin irritation (Cat. 2) Serious eye damage (Cat. 1) Skin sensitization (Cat. 1) Germ cell mutagenicity (Cat. 2) Carcinogenicity (Cat 2) Acute Aquatic Toxicity (Cat. 1) Chronic Aquatic Toxicity (Cat. 1)	H227 H301 H330 H311 H315 H318 H317 H341 H351 H400 H410	

SECTION 4: FIRST AID MEASURES

- Inhalation:** Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Seek immediate medical attention/advice.
- Skin contact:** Immediately flush with plenty of water, while removing contaminated clothing. When symptoms persist or in all cases of doubt, seek medical advice.
- Eye contact:** Flush eyes with water for at least 15 minutes while holding eyelids open. When symptoms persist or in all cases of doubt, seek medical advice.
- Ingestion:** Seek immediate medical attention/advice. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.
- Notes for physician:** Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, foam, carbon dioxide and water fog

Fire hazards/conditions of flammability: This material is not flammable.

Explosion data: Sensitivity to mechanical impact / static discharge: Not expected to be sensitive to mechanical impact or static discharge.

Special fire-fighting procedures/equipment:

Firefighters should wear protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

Hazardous combustion products: Oxides of carbon and nitrogen, irritating fumes and smoke.

NFPA Rating: Health: 2 Flammability: 1 Instability: 0 Special Hazards: 0

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: All persons dealing with clean-up should wear the appropriate protective equipment. Do not eat, drink or smoke while participating in clean up.

Environmental precautions: Ensure spilled product does not enter drains, sewers, waterways or confined spaces. For large spills, dike the area to prevent spreading.

Spill response/cleanup: Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Notify the appropriate authorities as required.

Prohibited materials: None specific

Special spill response procedures: In case of a transportation accident, in the United States contact CHEMTREC at 1-800-424-9300 or International at 1-703-527-3887.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Wear suitable protective equipment during handling. Do not ingest. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

Conditions for safe storage: Store in a cool, dry, well-ventilated area. Store away from incompatibles, temperature extremes and out of direct sunlight. Inspect periodically for damage or leaks.

Incompatible materials: Strong oxidizing agents; strong reducing agents; acids

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters:

Component	CAS No.	Value	Control Parameters	Source
Hexylene glycol	107-41-5	C	25 ppm	USA ACGIH Threshold Limit Values (TLV)
			Remarks	Eye and Upper Respiratory Tract irritation
		C	25 ppm 125 mg/m3	USA NIOSH Recommended Exposure Limits
		C	25 ppm 125 mg/m3	USA OSHA Table Z-1 Limits for Air Contaminants – 1910.1000
Aniline	62-53-3	TWA	2 ppm	USA ACGIH Threshold Limit Values (TLV)
			Remarks	Methemoglobinemia Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption
		TWA	5 ppm 19 mg/m3	USA OSHA Table Z-1 Limits for Air Contaminants
			Remarks	Skin contact does contribute to exposure
		TWA	2 ppm 8 mg/m3	USA OSHA Table Z-1 Limits for Air Contaminants – 1910.1000
			Remarks	Skin contact does contribute to exposure
		TWA	2 ppm 8 mg/m3	USA OSHA Table Z-1 Limits for Air Contaminants – 1910.1000
			Remarks	Skin notation
			Remarks	Potential Occupational Carcinogen See Appendix A

Ventilation and engineering measures: Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

Respiratory protection: If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised. Confirmation of which type of respirator is most suitable for the intended application should be obtained from respiratory protection suppliers.

Skin protection: Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers.

Eye / face protection: Good industrial hygiene practices should be used when handling this product including preventing eye contact and minimizing skin contact and inhalation.

Other protective equipment: As needed to prevent eye contact and minimizing skin contact and inhalation.

General hygiene considerations: Avoid breathing vapor or mist. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove and wash contaminated clothing before re-use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Appearance:	Black liquid
Odor:	Mild
Odor Threshold:	N/Av
Specific Gravity:	0.9
pH:	Not applicable
Boiling point:	>300 °F
Melting/Freezing point:	Not available
Coefficient of water/oil distribution:	Not available
Vapor pressure (mm Hg @ 20°C / 68°F):	Not available
Vapor density (Air = 1):	Heavier than air
Evaporation rate (n-Butyl acetate = 1):	Slower than n-Butyl acetate
Solubility in water:	Slightly
Flash Point	>200 °F, TCC
Auto-ignition temperature	Not applicable
Lower flammable limit (% by vol)	Not applicable
Upper flammable limit (% by vol)	Not applicable
Flame Projection Length	Not available
Flashback observed	Not available

SECTION 10: STABILITY AND REACTIVITY

Chemical stability:	Stable under the recommended storage and handling conditions prescribed.
Possibility of hazardous reactions:	None are known.
Conditions to avoid:	Avoid heat and open flame.
Materials to avoid and incompatibility:	See Section 7 (Handling and Storage) for further details.
Hazardous decomposition products:	None known; refer to hazardous combustion products in Section 5.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of exposure:	<i>Inhalation:</i>	Vapors and spray mist may irritate throat and respiratory system and cause coughing
	<i>Skin contact:</i>	May be harmful in contact with skin. Defats the skin. May cause redness and pain.
	<i>Eye contact:</i>	Corrosive. Prolonged contact causes serious eye and tissue damage.
	<i>Ingestion:</i>	Not expected to be a route of exposure with proper use. May be harmful if swallowed. Liquid irritates mucous membranes and may cause abdominal pain.

Toxicological data: There is no available data for the mixture itself, only for the ingredients. See below for individual ingredient acute toxicity data.

Ingredient	LD ₅₀	LD ₅₀	Skin corrosion/irritation	Serious eye damage/eye irritation
	Oral, rat	Rabbit, dermal	Skin, rabbit	Eyes, rabbit
2-Ethyl-1,3-hexanediol	1,400 mg/kg	2,000 mg/kg	Mild skin irritation	Severe eye irritation
Hexylene glycol	3,700 mg/kg	7,892 mg/kg	Skin irritation – 24 h	Severe eye irritation
Aniline	250 mg/kg	820 mg/kg	Skin irritation – 24 h	Severe eye irritation

Carcinogenic status:	This product contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP or EPA classification.		
	Aniline	IARC:	3 – Group 3: Not classifiable as to its carcinogenicity to humans
		NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
		OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by OSHA.
Reproductive effects:	2-Ethyl-1,3-hexandiol:		Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.
Teratogenicity:	No information found		
Germ Cell Mutagenicity:	Aniline	<0.2%	Laboratory experiments have shown mutagenic effects In vitro tests showed mutagenic effects.
Epidemiology:	No information found.		
Conditions aggravated by overexposure:	No information found.		

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:	No data is available on the mixture itself.				
2-Ethyl-1,3-hexanediol:	Toxicity to fish:	LC ₅₀	Ictalurus punctatus	624 mg/l	96 h
	Toxicity to aquatic invertebrates:	EC ₅₀	Daphnia magna (water flea)	>100 mg/l	72 h
	Toxicity to algae:	EC ₅₀	Desmodesmus subspicatus	>100 mg/l	72 h
Hexylene glycol:	Toxicity to fish:	LC ₅₀	Fathead Minnow	10,700 mg/l	96 h
	Toxicity to aquatic invertebrates:	EC ₅₀	Daphnia magna (water flea)	3,200 mg/l	48 h
Aniline	Toxicity to fish:	LC ₅₀	Oncorhynchus mykiss	10.96 mg/l	96 h
	Toxicity to aquatic invertebrates:	EC ₅₀	Daphnia magna (water flea)	80 - 380 mg/l	48 h
	Toxicity to algae:	EC ₅₀	Selenastrum	19 mg/l	72 h
Mobility:	No data is available on the mixture itself.				
Persistence:	No data is available on the mixture itself.				
Bioaccumulation potential:	No data is available on the mixture itself.				
Other adverse environmental effects:	The ecological characteristics of this mixture have not been fully investigated.				

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal recommendations: Do not discharge into drains, water courses or onto the ground. Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

Hazardous Waste Code /RCRA: Not regulated.

SECTION 14: TRANSPORT INFORMATION

This material is not UN / IATA regulated.

This material is not classified as ICAO/IATA-DGR Dangerous Goods.

This material is not classified as hazardous per the IMDG Code.

This material is not classified as hazardous per ADR.

This material is not classified as hazardous per the U.S. Department of Transportation (DOT).

This material is not UN / IATA regulated.

Marine Pollutant: No

SECTION 15: REGULATORY INFORMATION

Inventory Status: All listed ingredients appear on the Toxic Substances Control Act (TSCA) Inventory, EINECS/ELINCS, AICS, and DSL.

This material is classified as hazardous under OSHA regulations (29CFR 19410.1200). See Section 2.

SARA 302: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: Aniline < 0.2% CAS No. 62-53-3

SARA 311/312 : Acute Health Hazard, Chronic Health Hazard

SARA 313: Subject to reporting levels established by SARA Title III, Section 313: Aniline < 0.2% CAS No. 62-53-3
RCRA CODE: None

Hazardous Air Pollutants (HAPS): Aniline < 0.2%

US State "Right to Know" Laws:

California Proposition 65: Aniline CAS No. 62-53-3 <0.2%

Other US State "Right To Know" Lists:

The following chemicals are specifically listed by individual states: Hexylene glycol (MA, NJ, PA)
2-Ethyl-1,3-hexandiol (PA, NJ)
Aniline (MA, PA, NJ)

International Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

SECTION 16: OTHER INFORMATION

HMIS Rating: Health: * 2 Flammability: 1 Reactivity: 0
 * Chronic hazard 0-Minimal 1- Slight 2- Moderate 3- Serious 4- Severe

Legend:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Services
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
DOT	Department of Transportation
EPA	Environmental Protection Agency
HMIS	Hazardous Material Identifications System
HSDB	Hazardous Substances Data Bank
IARC	International Agency for Research on Cancer
Inh	Inhalation
MSHA	Mine Safety and Health Administration
NFPA	National Fire Protection Association
NIOSH	National Institute of Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible exposure limit
RCRA	Resource Conservation and Recovery Act
RTECS	Registry and Toxic Effects of Chemical Substances
SARA	Superfund Amendments and Reauthorization Act
STEL	Short Term Exposure Limit
TDG	Canadian Transportation of Dangerous Goods Act and Regulations
TLV	Threshold Limit Values
TPQ	Threshold Planning Quantity
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
WHMIS	Workplace Hazardous Materials Identification System

- References:**
1. ACGIH, Threshold Limit Values and Biological Exposure Indices
 2. International Agency for Research on Cancer Monographs
 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases (Chempendium, HSDB and RTECs)
 4. Material Safety Data Sheets for manufacturers
 5. US EPA Title III List of Lists
 6. California Proposition 65 List

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.