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Material Safety Data Sheet

Material Name: SpotPen Spotting Pens, Handcoloring Pens, Detail Pens, Red Eye Pen, Pet Eye Pen

Rev'd 03-09-00

***** Section 1 - Chemical Product and Company Identification *****

Chemical Name: Proprietary Dye Formulation

Product Use: For Retouching Photographs & Handcoloring Photographs

Manufacturer Information

Spot Pen

P.O. Box 1559

Las Cruces, NM 88004

Phone: (505) 523-8820

Fax: (505) 647-8786

Emergency # (505) 523-8820 (9am-5pm, Mon-Fri)

***** Section 2 - Composition / Information on Ingredients *****

CAS #	Component	Percent
107-21-1	Ethylene glycol	Proprietary

Component Information/Information on Non-Hazardous Components

This product meets the definition of an article under 29 CFR 1910.1200.

***** Section 3 - Hazards Identification *****

Emergency Overview

Product is a pen containing a colored liquid with a mild odor. The pen is not expected to pose a health hazard unless a person is overexposed to the liquid contents of the pen due to breakage of the pen or intentional misuse. The liquid contents of the pen may be harmful with prolonged or repeated exposure by inhalation, contact with the skin or eyes, or if it is swallowed. The liquid contents of the pen may be absorbed through the skin.

Hazard Statements

CAUTION! The liquid contents of the pen may be harmful with prolonged or repeated exposure by inhalation, contact with the skin or eyes, or if it is swallowed. The liquid contents of the pen may be absorbed through the skin.

Potential Health Effects: Eyes

Direct contact of pen tip with eye may produce severe eye irritation, causing prolonged vision impairment, tears, swelling, and redness. Vapors from pen may also produce eye irritation.

Potential Health Effects: Skin

Not expected to cause skin irritation with normal use. However, prolonged or repeated contact with the liquid from the pen may produce skin irritation and discoloration (due to dye in pen). Symptoms may include redness, itching, or rash. Ethylene glycol may be harmful if absorbed through the skin.

Potential Health Effects: Ingestion

Ingestion of this product is unlikely. However, if liquid contents of pen are ingested (due to breakage of pen or intentional misuse) serious toxicity could result, including damage to the kidneys and nervous system, cardiac failure, and pulmonary edema.

Potential Health Effects: Inhalation

Not expected to be an inhalation hazard under normal use. Prolonged or repeated inhalation of vapors may cause respiratory irritation and possible central nervous system depression, resulting in nausea, dizziness, and incoordination.

HMIS Ratings: Health: 1 Fire: 1 Reactivity: 0 Pers. Prot.:

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

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* * * Section 4 - First Aid Measures * * *

First Aid: Eyes

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

First Aid: Skin

For skin contact, wash immediately with soap and water. If irritation develops, get medical attention.

First Aid: Ingestion

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting.

First Aid: Inhalation

If inhaled, immediately remove the affected person to fresh air. Seek medical attention if symptoms develop or persist. If the affected person is not breathing, apply artificial respiration.

First Aid: Notes to Physician

Ethanol is an antidote for ethylene glycol ingestion. The presence of ethanol will inhibit the formation of toxic metabolites.

* * * Section 5 - Fire Fighting Measures * * *

Flash Point: 243 deg F (117 deg C)

Method Used: COC

Upper Flammable Limit (UFL): 3.2%

Lower Flammable Limit (LFL): 15.3%

Auto Ignition: 748 deg F (398 deg C)

Flammability Classification:

Rate of Burning:

General Fire Hazards

Pen is not expected to be a fire hazard. However, unevaporated liquid from pen may increase the flammability of material it is applied to.

Hazardous Combustion Products

Upon decomposition, this product emits acrid smoke and irritating and toxic fumes, including carbon monoxide, carbon dioxide, oxides of nitrogen, and/or low molecular weight hydrocarbons.

Extinguishing Media

Use dry chemical, carbon dioxide, water spray, or foam for fires.

Fire Fighting Equipment/Instructions

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0 Other:

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Containment Procedures

Wipe up liquid with absorbent cloth and place in appropriate waste container.

Clean-Up Procedures

Wear appropriate protective equipment and clothing during clean-up. Wipe up liquid with absorbent material and place in appropriate waste container. Thoroughly wash the area with detergent and water after a spill or leak clean-up.

Evacuation Procedures

Keep unnecessary personnel away until cleanup is complete.

Special Procedures

Avoid skin contact with the spilled material. Remove soiled clothing and launder before reuse.

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* * * Section 7 - Handling and Storage * * *

Handling Procedures

Avoid contact with eyes, skin, or clothing. Keep this product from heat, sparks, or open flame. Avoid prolonged or repeated inhalation of vapors. Use this product with adequate ventilation. Do not reuse the empty container. Wash thoroughly after handling.

Storage Procedures

Keep this material away from food, drink and animal feed. Keep the pens tightly capped and away from moisture. Keep away from oxidizing agents, excessive heat, and ignition sources. Store in well-ventilated areas.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Exposure Guidelines

A: General Product Information

Attempts should be made to eliminate all contact with skin and eyes, and to limit inhalation exposure. Keep this product away from children and pets.

B: Component Exposure Limits

Ethylene glycol (107-21-1)

ACGIH: aerosol: 100 mg/m³

OSHA: C 50 ppm; C 125 mg/m³

NIOSH: no established RELs - see Appendix D

Engineering Controls

Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

None required for normal use. Wear chemical goggles to prevent eye irritation due to vapors.

Personal Protective Equipment: Skin

Protective equipment for the skin should not be necessary, provided that the solution in the pens does not come in contact with the skin. Wear impervious gloves for prolonged or repeated skin contact with liquid contents of pens. It is recommended that gloves be tested to determine suitability for prolonged contact.

Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively prevent buildup of vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

Personal Protective Equipment: General

Eye wash fountain is recommended if splashing is possible.

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* * * Section 9 - Physical & Chemical Properties * * *

<p>Appearance: Color varies, depends on pen color</p> <p>Physical State: Liquid</p> <p>Vapor Pressure: <1 mm Hg</p> <p>Boiling Point: 387 deg F (197 deg C) @ 20 mm Hg</p> <p>Solubility (H2O): Miscible</p> <p>Evaporation Rate: <1</p>	<p>Odor: Mild</p> <p>pH: Not Available</p> <p>Vapor Density: >1</p> <p>Melting Point: Not Available</p> <p>Specific Gravity: 1.1 @ 25 deg C</p> <p>Percent Volatile: >80%</p>
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* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Incompatible substances (see below), excessive heat, and all sources of ignition.

Incompatibility

The following incompatibilities are for ethylene glycol. However, due to the small volume of ethylene glycol in each pen, reactions are unlikely to occur. Strong bases, strong oxidizing agents, chlorosulfonic acid, dimethyl terephthalate + titanium butoxide, oleum, perchloric acid, phosphorus (V) sulfide, potassium dichromate, silvered copper wire, and sulfuric acid.

Ignites on contact with chromium trioxide, potassium permanganate, and sodium peroxide. Mixtures with ammonium dichromate, silver chlorate, sodium chlorite, and uranyl nitrate ignite when heated to 100 deg C.

Hazardous Decomposition

Upon decomposition, this product emits carbon monoxide, carbon dioxide, oxides of nitrogen, and/or low molecular weight hydrocarbons.

Hazardous Polymerization

Hazardous polymerization will not occur.

* * * Section 11 - Toxicological Information * * *

Acute Toxicity

A: General Product Information

Product is a pen containing a colored liquid. The pen is not expected to pose a health hazard unless a person is overexposed to the liquid contents of the pen due to breakage of the pen or intentional misuse. Not expected to cause skin irritation with normal use. However, prolonged or repeated contact with the liquid from the pen may produce skin irritation and discoloration (due to dye in pen). Symptoms may include redness, itching, or rash. Ethylene glycol may be harmful if absorbed through the skin. Direct contact of pen tip with eye may produce severe eye irritation, causing prolonged vision

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impairment, tears, swelling, and redness. Vapors from pen may also produce eye irritation. When ethylene glycol was instilled into rabbit eyes and applied to rabbit skin, mild irritation was produced at both sites. Ingestion of the liquid in pens is unlikely. However, if liquid contents of pen are ingested (due to breakage of pen or intentional misuse) serious toxicity could result, including central nervous system stimulation followed by depression, kidney and liver damage, metabolic acidosis, and pulmonary edema. The lethal oral dose of ethylene glycol is reported to be about 100 ml. Metabolites of ethylene glycol are reported to account for its toxicity. Crystals of calcium oxalate will form in the kidney and in the blood vessels of the brain. Ethylene glycol is very toxic in particulate form upon inhalation.

B: Component Analysis - LD50/LC50

Ethylene glycol (107-21-1)

Dermal LD50 Rabbit: 9530 uL/kg

Oral LD50 Mouse: 5500 mg/kg

Inhalation LC50 Rat: 10876 mg/kg

Oral LD50 Rat: 4700 mg/kg

Carcinogenicity

A: General Product Information

No data available on product as a whole. There is no evidence of carcinogenicity of ethylene glycol in experimental animals.

B: Component Carcinogenicity

Ethylene glycol (107-21-1)

ACGIH: A4 - not classifiable as a human carcinogen

Epidemiology

The majority of reported ethylene glycol fatalities are due to kidney failure.

Neurotoxicity

Not expected to be an inhalation hazard under normal use. Prolonged or repeated inhalation of vapors may cause respiratory irritation and possible central nervous system depression, resulting in nausea, dizziness, and incoordination.

Mutagenicity

Review of information on components indicates that no components at greater than 1.0% have mutagenic effects.

Teratogenicity

Ethylene glycol causes birth defects in laboratory animals. No human data is available.

Other Toxicological Information

None.

* * * Section 12 - Ecological Information * * *
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Toxicity

A: General Product Information

Keep out of sewers and waterways.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Ethylene glycol (107-21-1)

LC50 (96 hr) rainbow trout: 41000 mg/L. Cond: 20 degrees C.; LC50 (96 hr) bluegill: 27,500-41,000 mg/L.; LC50 (96 hr) goldfish: 27,500-41,000 mg/L.; LC50 (48 hr) water flea: 46,300 mg/L.; EC50 (30 min) Photobacterium phosphoreum: 620.0 ppm Microtox test.

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Environmental Fate

In an aquatic environment, ethylene glycol will biodegrade readily and have a half-life of several days. In the atmosphere, ethylene glycol will react with hydroxyl radicals, and will have a half-life of two days.

* * * Section 13 - Disposal Considerations * * *

US EPA Waste Number & Descriptions

A: General Product Information

Material, if discarded, is not expected to meet the definition or characteristics of a hazardous waste under RCRA.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Do not allow the material in this product to drain into sewers/water supplies.

* * * Section 14 - Transportation Information * * *
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US DOT Information

Shipping Name: Not regulated

Hazard Class: None

UN/NA #: None

Packing Group: None

Required Label(s): None

Additional Info.: None

International Transportation Regulations

Not available.

* * * Section 15 - Regulatory Information * * *
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US Federal Regulations

A: General Product Information

No additional information available.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Ethylene glycol (107-21-1)

SARA 313: form R reporting required for 1.0% de minimus concentration

State Regulations

A: General Product Information

No additional information available.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

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Component	CAS #	CA	FL	MA	MN	NJ	PA
Ethylene glycol	107-21-1	Yes	Yes	Yes	Yes	Yes	Yes

Other Regulations

A: General Product Information

No additional information available.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Ethylene glycol	107-21-1	Yes	Yes	Yes

C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Ethylene glycol	107-21-1	1% item 716 (860)

* * * Section 16 - Other Information * * *

Other Information

This information is to the best of the company's knowledge and is believed accurate based on information currently available to us. However, no representation, warranty, or guarantee of any kind, express or implied, is made as to its accuracy, reliability, or completeness, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration

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This is the end of MSDS ID: SP10K, SP10KW, SORER, SP1C, SP2C, SP3C, SP4C