MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: **EZ FAST INK CYAN PIGMENT INK**

Product Use: Ink-Jet Printing Ink

Company Identification

MANUFACTURER
Equipment Zone, Inc.
17-20 Willow St.
Fair Lawn, NJ 07410 USA
(01) 201-797-1504

For Emergencies Involving a Spill, Leak, Fire, Exposure or Accident, Contact ChemTel at 800-255-3924 within the United States or 813-248-0573 for international collect calls.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components (% by weight)

Material	CAS Number	%
Water	7732-18-5	45-94
Aliphatic Alcohol	**	1-10
*Ethylene Glycol	107-21-1	1-10
Humectant	**	1-10
Polyglycol Ether	**	1-10
Polymers	**	1-10
Blue Pigment	**	1-5
Copper (as an integral part of the pigment molecule)	7440-50-8	<0.5

*Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

Components (Remarks)

**The specific identity for each component not identified by a CAS Registry Number is withheld as a trade secret.

3. HAZARDS IDENTIFICATION

Potential Health Effects

THIS PRODUCT CAN BE USED SAFELY WHEN USED AS DIRECTED AND WHEN APPLICABLE SAFETY PRECAUTIONS ARE FOLLOWED.

POTENTIAL HEALTH EFFECTS FROM PRODUCT

Potential routes of overexposure to this product are skin contact, eye contact and inhalation of vapor.

Ingestion is not expected to be a significant route of exposure for this product under normal use conditions.

There is no toxicity data available for this specific formulation. Any potential hazards are presumed to be due to exposure to the components.

ADDITIONAL HEALTH EFFECTS

Since this mixture has not been tested as a whole to determine the hazards by all routes of exposure, information is provided for each hazardous component of the mixture to meet requirements of OSHA's Hazard Communication Standard (29 CFR 1910.1200). The effects noted occur from exposure to the pure component unless otherwise noted.

INFORMATION FOR COMPONENTS

ALIPHATIC ALCOHOL

Eye Contact - May cause slight eye irritation.

Skin Contact - May cause slight skin irritation. Not expected to be absorbed through the skin.

Inhalation - Breathing of spray or mist may cause irritation of the upper respiratory tract.

Ingestion - This material has a low order of acute oral toxicity based on animal data.

ETHYLENE GLYCOL

Eye Contact - May cause slight transient (temporary) eye irritation. Corneal injury is unlikely. Vapors or mists may cause eye irritation.

Skin Contact - Essentially nonirritating to skin. Repeated skin exposure to large quantities may result in absorption of harmful amounts.

Inhalation - At room temperature, exposure to vapors are minimal due to physical properties; higher temperatures may generate vapor levels sufficient to cause adverse effects.

Ingestion - Single dose oral toxicity is considered to be moderate. Excessive exposure may cause central nervous system effects, cardiopulmonary effects (metabolic acidosis), and kidney failure. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing amounts larger than that may cause serious injury, even death.

Systemic (Other Target Organ) Effects - Excessive exposure may cause irritation to upper respiratory tract. Observations in animals include kidney and lever effects and deposition of calcium salts in various tissues after long-term dietary intake of ethylene glycol.

Cancer Information - Ethylene glycol did not cause cancer in long-term animal studies.

Teratology (Birth Defects) - Based on animal studies, ingestion of very large amounts of ethylene glycol appears to be the major and possibly only route of exposure to produce birth defects. Exposures by inhalation (tested nose-only in animals to prevent ingestion) or skin contact, the primary routes of occupational exposure, had minimal or essentially no effect on the fetus.

Reproductive Effects - Ingestion of large amounts of ethylene glycol has been shown to interfere with reproduction in animals. Specifically, growth retardation and decreased litter size in rats and mice and mating frequency in mice were observed.

HUMECTANT

Eye Contact - May cause slight transient (temporary) eye irritation. Corneal injury is unlikely.

Skin Contact - Prolonged or repeated exposure not likely to cause significant skin irritation. A single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts.

Inhalation - At room temperature, vapors are minimal due to physical properties. If heated or sprayed as an aerosol, airborne material may cause upper respiratory irritation.

Ingestion - Single dose oral toxicity is considered to be extremely low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amount larger than that may cause injury. Signs and symptoms of excessive exposure may be central nervous system effects and increased blood sugar levels.

Systemic (Other Target Organ) Effects - Repeated excessive exposure may cause increased fat levels in blood. Observations in animals include kidney, liver, and gastrointestinal effects with very large oral doses.

Cancer Information - Did not cause cancer in long-term animal studies.

Teratology - Birth defects are unlikely. Exposures having no adverse effects on the mother should have no effect on the fetus.

Reproductive Effects - Reproductive effects seen in female animals are believed to be due to altered nutritional status resulting from extremely high doses in their diets. Similar effects have been seen in animals fed synthetic diets.

POLYGLYCOL ETHER

Eye Contact - May cause slight transient (temporary) eye irritation. Corneal injury is unlikely.

Skin Contact - Prolonged or repeated exposure not likely to cause significant skin irritation. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. Prolonged or repeated exposure to very large amounts of component(s) in this product may cause narcosis (drowsiness).

Ingestion - single dose oral toxicity is considered to be low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.

Inhalation - Single exposure to vapors is not likely to be hazardous.

Systemic (Other Target Organ) Effects - Signs and symptoms of excessive exposure may be anesthetic or narcotic effects.

Teratology (Birth Defects) - Birth defects are unlikely. Even exposure have an adverse effect on the mother should have no effect on the fetus.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

4. FIRST AID MEASURES

First Aid

INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Consult a physician. Wash contaminated clothing before reuse.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION

Ingestion is not an expected route of exposure during normal use of the product. If ingested, consult a physician.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point	: >93.3 °C (>200 °F)
Method	: Closed Cup
Approximate Flammable Limits in Air, % by Volume	
LEL	: Not Available
UEL	: Not Available
Autoignition Temperature	: Not Available

Product is a nonflammable water-based solution.

Hazardous combustion products (gases/vapors) produced in fire can include carbon monoxide, carbon dioxide, nitrogen oxides, oxides of copper and smoke.

Extinguishing Media

Use media appropriate for surrounding material.

Fire Fighting Instructions

This product is not flammable. Use normal firefighting procedures for the area.

6. ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Initial Containment

Dike spill.

Spill Clean Up

Soak up with absorbent material.

7. HANDLING AND STORAGE

Handling (Personnel)

Avoid contact with eyes, skin, or clothing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment

EYE/FACE PROTECTION
Wear safety glasses. Wear coverall chemical splash goggles and face shield when the possibility exists for eye and face contact due to splashing or spraying of the material.

RESPIRATORS
Respirators are not needed for normal use.

PROTECTIVE CLOTHING
If there is potential for significant dermal contact wear appropriate impervious clothing and gloves.

Applicable Exposure Limits and Exposure Data

WATER

PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established
AEL * (DuPont)	: None Established
LD_{50} (rat, oral)	: >90 mL/kg (RTECS)
LC_{50} (rat, inhalation/4 hr.)	: No data available

ALIPHATIC ALCOHOL

PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established
AEL * (DuPont)	: None Established
LD_{50} (rat, oral)	: >5,000 mg/kg (supplier)
LC_{50} (rat, inhalation/4 hr.)	: No data available

ETHYLENE GLYCOL

PEL (OSHA)	: None Established
TLV (ACGIH)	: Ceiling: 100 mg/m^3, aerosol
AEL * (DuPont)	: 50 ppm, 8 Hr. TWA, vapor
IEL (2000/39/EC)	: 52 mg/m^3, 20 ppm, skin STEL 104 mg/m^3, 40 ppm
LD_{50} (rat, oral)	: 4,700 mg/kg (RTECS)
LD_{50} (rabbit, dermal)	: 9,530 uL/kg (RTECS)
LC_{50} (rat, inhalation/4 hr.)	: >200 mg/m^3 (RTECS)

HUMECTANT

PEL (OSHA)	: 5 mg/m^3, 8 Hr. TWA (mist, respirable fraction) 15 mg/m^3, 8 Hr. TWA (mist, total dust)
TLV (ACGIH)	: 10 mg/m^3, 8 Hr. TWA (mist)
AEL * (DuPont)	: None Established
LD_{50} (rat, oral)	: >17,000 mg/kg (supplier)
LC_{50} (rat, inhalation/4 hr.)	: >4.9 mg/liter (supplier)

POLYGLYCOL ETHER

PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established
AEL * (DuPont)	: None Established
LD_{50} (rat, oral)	: >3,200 mg/kg (supplier)
LD_{50} (rabbit, dermal)	: >20 mL/kg (supplier)
LC_{50} (rat, inhalation/4 hr.)	: No data available

POLYMERS

PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established
AEL * (DuPont)	: None Established
LD_{50} (rat, oral)	: No data available
LC_{50} (rat, inhalation/4 hr.)	: No data available

BLUE PIGMENT

PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established
AEL * (DuPont)	: None Established
LD_{50} (rat, oral)	: >5,000 mg/kg (supplier)
LC_{50} (rat, inhalation/4 hr.)	: No data available

COPPER (AS AN INTEGRAL PART OF THE PIGMENT MOLECULE)

PEL (OSHA)	: 5 mg/m^3, Particulates not otherwise regulated, respirable fraction 15 mg/m^3, Particulates not otherwise regulated, total dust
TLV (ACGIH)	: 3 mg/m^3, Particulates not otherwise specified, respirable 10 mg/m^3, Particulates not otherwise specified, inhalable
AEL * (DuPont)	: None Established
LD_{50} (rat, oral)	: No data available
LC_{50} (rat, inhalation/4 hr.)	: No data available

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Form	: Liquid
Color	: Cyan (Blue)
Odor	: Slight
Solubility in Water	: Miscible
pH	: About 8
Specific Gravity	: About 1

Other Information

Flash Point	: >93.3 $^{\circ}$C (>200 $^{\circ}$F)
Method	: Closed Cup
Approximate Flammable Limits in Air, % by Volume	
LEL	: Not Available
UEL	: Not Available
Autoignition Temperature	: Not Available

10. STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

None reasonably foreseeable.

Decomposition

Decomposition does not occur during normal use.

Polymerization

Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Animal Data

No data available for product.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

No data available for product.

13. DISPOSAL CONSIDERATIONS

Waste Disposal

DO NOT DISCARD INTO ANY SEWERS, INTO ANY BODY OF WATER, OR ON THE GROUND. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local laws and regulations. This product contains a copper compound that might be managed by applicable waste disposal regulations.

14. TRANSPORTATION INFORMATION

(Not meant to be all inclusive)

DOT (Domestic Surface, U.S.A.)	: Not regulated
ICAO/IATA (Air)	: Not regulated
IMO/IMDG (Ocean)	: Not regulated

15. REGULATORY INFORMATION

(Not meant to be all inclusive - selected regulations represented)

U.S. Regulations

Federal Regulations

TSCA Inventory Status - All components of this product are listed, or exempt from listing, on the TSCA 8(b) chemical inventory.

TSCA Section 12(b) Export Notification - This product can contain:

Tetrahydrofuran (109-99-9)	<0.3%

State Regulations

State Right-To-Know

WARNING - SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM (California Proposition 65)

None

European Union Regulations

EU Inventory Status - All components of this product are listed, or are exempt from listing, on the EINECS chemical inventory.

Transport Information - This product is not classified as dangerous within the meaning of transport regulations.

Labeling - This product does not need to be labeled in accordance with EC-Directive 1999/45/EC.

Switzerland

Switzerland VOC Regulations (Ordinance 814.018, *Verordnung über die Lenkungsabgabe auf flüchtigen organischen Verbindungen*, as of 28 December 2000)

This product is exempt from Swiss VOC regulations.

16. OTHER INFORMATION

HMIS® Rating

Health	1
Flammability	1
Reactivity	0

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

MSDS Contact Information

Equipment Zone, Inc.
17-20 Willow St.
Fair Lawn, NJ 07410 USA
(01) 201-797-1504

Revision History

16 June 2005	New MSDS
7 June 2006	Formulation Change and Review

Key

ACGIH	American Conference of Governmental Industrial Hygienists
AEL	Acceptable Exposure Limit (DuPont)
Cmpds	Compounds
DOT	Department of Transportation (U.S.A.)
ET	Eastern Time (U.S.A.)
EU	European Union
HMIS®	Hazardous Material Information System (National Paint and Coatings Association)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IEL	Indicative Exposure Limit (EU Directive 2000/39/EC)
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LEL or LFL	Lower Explosive Limit or Lower Flammable Limit
M-F	Monday through Friday
NA	North America
NIOSH	National Institute of Occupational Safety and Health (U.S.A.)
NOHSC	National Occupational Health and Safety Commission (Worksafe Australia)
NOS	Not Otherwise Specified
NTP	National Toxicology Program (U.S.A.)
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration (U.S.A.)
PEL	Permissible Exposure Limit
RTECS	Registry of Toxic Effects of Chemical Substances (NIOSH)
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act (U.S.A)
TWA	Time-weighted Average
UEL or UFL	Upper Explosive Limit or Upper Flammable Limit
U.S.A.	United States of America
VOC	Volatile Organic Compound(s)
WEEL	Workplace Environmental Exposure Level

End of MSDS