



Product ID: Standard Black

Version 1.0
Date December 18, 2014
Supersedes

CHEMTREC: (800) 424 9300
For Chemical Emergency Only

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFICATION

Product Name Z-Ink Standard Black

1.2 RELEVANT IDENTIFIED USES OF THE PRODUCT

Product Use Industrial printing applications: For use in industrial ink jet printers

1.3 SUPPLIER

Z-Tec Automation Systems Inc.	Phone: (604) 881-2203
Unite 240, 19358-96 Avenue	Fax: (604) 881-2208
Surrey, BC Canada	www.ztec.ca
V4N 4C1	

1.2 EMERGENCY TELEPHONE NUMBER(S)

Medical	Poison Control Center	USA	(800) 222 1222
Transportation	CHEMTREC	USA	(800) 424 9300

SECTION 2: Hazards Identification

2.1 CLASSIFICATION OF THE PRODUCT

H315	Skin irritant	Causes skin irritation
H316	Skin Sensitivity	Causes mild skin irritation
H320	Eye Irritant	Causes eye irritation
H333	Acute Toxicity 5	May be harmful if inhaled
H420	Aquatic Life	Harmful to aquatic life
H 302		Harmful if swallowed
H 373		May cause damage to organs (kidney) through prolonged or repeated exposure.

2.2 LABEL ELEMENTS



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Harmful: Possible risk through inhalation, contact with skin and if swallowed.

Target Organ(s): Eyes, Respiratory System, Liver

ANSIZ129.1-2006 Label Elements

WARNING: Avoid inhalation of vapors and contact with eyes and skin. If inhaled remove to fresh air. If splashed in eyes flush with water for more than 15 minutes. If in contact with skin, flush with water and wash with mild soap. In medical emergency call the Poison Control Center (USA 1 303 623 5716) and a physician. Read MSDS before using.

2.3 OTHER HAZARDS

Repeated exposure may cause skin irritation or organ damage.

IF SWALLOWED: Immediately call a Poison Control Center and a physician. Get medical attention. Keep container tightly closed. Store in a well ventilated place.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Product Name	CAS NO.	EC No.	%	GHS Classification
Dlethylene Glycol	111-46-6	203-872-2	<10	Acute toxicity , Oral, Category 4 Repeated exposure, Oral, Category 2, Kidney H373
1,3 Propanediol	504-63-2	207-997-3	<10	Skin irritation, Category 2
1,2 Hexanediol	6920-22-5	230-029-6	<6	Cause eye irritation Causes digestive and respiratory tract irritation. Causes skin irritation Causes respiratory tract irritation XI; R36,R37,R38
Isopropanol	67-63-0	200-661-7	<5	Flammable Liquids: Category 2 Serious Eye Damage/Irritation Category 2A: F;R11 Xi;R36 R67
Carbon Black Pigment	1333-86-4	215-609-9	<10	May cause respiratory tract irritation. May cause eye irritation May cause skin irritation Classified as a Carcinogen by IARC (2B). Exposure does not occur when it remains bound within a product matrix. Carbon Black is present only in a bound form in this product.

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

EYE CONTACT: Flush immediately with water for 15 minutes. Get medical attention.

SKIN CONTACT: Wash with soap and water. Remove contaminated clothing. Consult a physician if irritation persists. Do not re-use clothing until cleaned.

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INHALATION: Remove to fresh air. Restore breathing. Get medical attention.

INGESTION: Do not give liquids if victim is unconscious or drowsy. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Call a Poison Control Center or physician.

SECTION 5: FIRE FIGHTING MEASURES

5.1 PHYSICAL CHARACTERISTICS

FLASH POINT: Above - 70 °C /158 °F **METHOD USED:** TCC

FLAMMABLE LIMITS IN AIR BY VOLUME: LOWER: N/A **UPPER:** N/A

5.2 EXTINGUISHING MEDIA

EXTINGUISHING MEDIA: Alcohol foam, CO2, dry chemical, water fog. DO NOT use a direct stream of water.

SPECIAL FIRE FIGHTING PROCEDURES & PRECAUTIONS:

Clear fire area of unprotected personnel. Do not enter confined fire space without using self contained breathing apparatus and protective clothing.

Keep run-off water out of sewers and water sources. If risk of water pollution occurs, notify appropriate authorities.

UNUSUAL FIRE & EXPLOSION HAZARDS:

None

SPECIFIC HAZARDS: None

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED:

Avoid eye or skin contact. Place leaking containers in well ventilated area. Contain spill to minimize contaminated area and facilitate salvage or disposal. To clean spill, flush area sparingly with water or use an absorbent. Avoid run-off into storm sewers and ditches that lead to natural waterways. All cleanup and disposal should be carried out in accordance with federal, state and local regulations. If required, state and local authorities should be notified.

6.2 WASTE DISPOSAL METHOD:

Recovered liquids may be sent to a licensed reclaimer or incineration facility. Contaminated material must be disposed of in a permitted waste management facility. Consult federal, state, or local disposal authorities for approved procedures.

SECTION 7: HANDLING AND STORAGE

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7.1 PRECAUTIONS FOR SAFE HANDLING

Protect against physical damage. Store in a cool, dry and well-ventilated location. Separate from incompatible materials. Observe all warnings and precautions listed for the product.

Do not attempt to clean empty containers since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition.

Keep containers tightly closed when not in use. Use adequate ventilation.

Wash with soap and water before eating, drinking, smoking or using toilet facilities. Launder contaminated clothing before re-use.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 EXPOSURE GUIDELINES

Chemical Name	OSHA PEL TWA 8 HRS		ACGIH TLV STEL		Notes
	ppm	mg/m ³	ppm	mg/m ³	
Dlethylene Glycol	-	10	-	-	
1,3 Propanediol	-	-	-	-	
1,2 Hexanediol	-	-	-	-	OSHA Non Hazardous Xi; R36,R37,R38
Isopropyl Alcohol	400	980	400	980	F;R11 Xi;R36 R67
Carbon Black		3.5		3.5	XN; R40

8.2 PERSONAL PROTECTION



Ventilation: Use only with adequate ventilation to keep employee exposure below any recommended or statutory limits.

Hygiene: Wash hands, forearms and face thoroughly after handling chemical products and before eating. Remove contaminated clothing before reusing. Place eyewash stations and safety showers close to the location of chemical storage and use.

Eye Protection: Use approved safety goggles or splash shields when exposed to liquid splashes, mists, gases or dust.

Hand Protection: Wear chemical resistant, impervious gloves when handling chemical products.

Respiratory Protection: Use an air purifying or air fed respirator if exposure will result in exposure in excess of allowable limits. Ensure that the respirator's safe working rating exceeds the expected exposure.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 EXPOSURE GUIDELINES

PHYSICAL STATE	Liquid	pH	Not determined
FLASH POINT	>70°C /158°F	EXPLOSION LIMITS	Upper 12.3 Lower 2.0
BOILING POINT	>100°C /212°F	SPECIFIC GRAVITY	1.0
VAPOR DENSITY	N/A	EVAPORATION RATE	0.1 (n.Bu.Acet.=1)
VAPOR PRESSURE (mm Hg)	N/A @ 25°C	% VOLATILE RATE	N/A
WEIGHT PER GALLON	8.5 lbs	APPEARANCE & ODOR	Black Liquid, mild odor
SOLUBILITY IN WATER	100%	VOC	192 grams/liter

9.2 OTHER EXPOSURE GUIDELINES

Keep from freezing

9.3 ENGINEERING MEASURES

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

SECTION 10: STABILITY AND REACTIVITY

10.1 STABILITY

Stable under normal temperature conditions.

10.2 REACTIVITY

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Hazardous reactions will not occur under normal conditions of storage and use.

10.4 CONDITIONS TO AVOID

Keep from freezing

10.5 INCOMPATIBLE MATERIALS

Oxidizing materials

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous decomposition products should not be produced under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 ACUTE TOXICITY

Chemical Name	Result	Species	Dose	Exposure
Diethylene Glycol	LD – 50 Oral	Rat	12565 mg/kg	
	LD – 50 Oral	Human	1000 mg/kg	
	LD – 50 Dermal	Rabbit	11890 mg/kg	

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1,3 Propanediol	LD – 50 Oral Skin irritation	Mouse Human	4500 mg/kg	48 hr
1,2 Hexanediol	No data available	No data available	No data available	
Isopropanol	LC50 Inhalation LC50 Inhalation LC50 Inhalation LD50 Oral LD50 Oral LD Oral LD50 Dermal	Mouse Rat Rat Mouse Rabbit Rat Rabbit	53000 mg/m ³ 16000 ppm 72600 mg/m ³ 3600 mg/kg 6410 mg/kg 5045 mg/kg 12800 mg/kg	8 hours
Carbon Black	LD50 Oral LD50 Dermal	Rat Rabbit	>=15,400 mg/kg >3 g/kg	

11.2 CHRONIC TOXICITY

Inhalation of vapors in high concentration may cause irritation of the respiratory system.

11.3 IRRITATION/CORROSION

Skin: Causes mild irritation. Repeated exposure may cause skin cracking or dryness.
 Eyes: Causes serious eye damage
 Respiratory: Not classified. No known significant effects or critical hazards.

11.4 SENSITIZATION

Skin: Not classified. No known significant effects or critical hazards.
 Respiratory: Not classified. No known significant effects or critical hazards.

11.5 MUTAGENICITY

Not classified. No known significant effects or critical hazards.

11.6 CARCINOGENICITY

Chemical Name	ACGIH	IARC	NTP	OSHA
Diethylene Glycol	Not listed	Not listed	Not listed	Not listed
1,3 Propanediol	Not listed	Not listed	Not listed	Not listed
1,2 Hexanediol	Not listed	Not listed	Not listed	Not listed
Isopropanol	Not listed	Not listed	Not listed	Not listed
Carbon Black Pigment	Not listed	2B	Not listed	Not listed

ACGIH: American Conference of Governmental Industrial Hygienists

IARC: International Agency for Research on Cancer

Group 2B Possible Carcinogen to Humans

NTP: National Toxicity Program

Special Note: This product does not contain any free dry carbon particles that could be airborne while handling. Carbon Black is classified as a carcinogen by the IARC (Group 2B) and by the State of California under Proposition 65. In their evaluation of Carbon Black, both organizations indicate that exposure to Carbon Black, per se. does not occur when it remains bound within a product matrix, specifically rubber, ink and paint. Carbon Black is present only in a bound form in this product.

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11.7	REPRODUCTIVE TOXICITY	Not determined
11.8	DEVELOPMENTAL TOXICITY	Not determined
11.9	TERATOGENIC	Not determined
11.10	TARGET ORGAN EFFECTS	Kidney, Eyes, Liver, Respiratory System, Skin

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Chemical Name	Result	Species	Exposure
Diethylene Glycol	LC – 50 , 75,200 mg/l	Fish – Pimephales Promelas	96 hr
	LC - 50 , 5000 mg/l	Gold Fish	24 hr
	EC – 50, More than 10000 mg/l	Daphnia Magna	24 hr
1,3 Propanediol	LC – 50, 5000 mg/l	Gold fish	24 hr
	EC – 50, 7417 mg/l	Daphnia Magna	48 hr
1,2 Hexanediol	No data available	No data available	
Isopropyl Alcohol	Acute LC50 >1000 ppm	Fathead Minnow	96 hours
	Acute LC50 >1000 ppm	Daphnid	96 hours
	Acute LC50 8970-9280 ppm	Golden Orfe	48 hours
Carbon Black	No data available	No data available	

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Waste Disposal Methods	Dispose of the waste according to local regulations. Waste should not be released into the environment. Waste can be incinerated or disposed of in a landfill when in accordance with local regulations. This material, as supplied, is a hazardous waste according to Federal regulations (40 CFR 261). Dispose of surplus and non-recyclable product via a licensed waste disposal contractor
Contaminated Packaging	Dispose of in accordance with local regulations. Empty containers should be taken for local recycling, recovery or waste disposal.
Special Precautions	None

SECTION 14: TRANSPORT INFORMATION

	UN	IMDG	IATA	US DOT
Number	Not Regulated	Not Regulated	Not Regulated	Not Regulated

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UN Proper Shipping Name	-	-	-	-
Transport Hazard Class	Not Regulated Not Dangerous Goods	Not Regulated Not Dangerous Goods	Not Regulated Not Dangerous Goods	Not Regulated Not Dangerous Goods
Packaging Group	II	II	II	II
Environmental Hazards	No	No	No	No
Special Precautions for User	None	None	None	None
Additional Information	None	None	None	None

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SECTION 15: REGULATORY INFORMATION

INTERNATIONAL INVENTORIES

TSCA United States Substances Control Act Section 8(b) Inventory Complies
DSL/NDSL Canadian Domestic Substances List / Non Domestic Substances List

US FEDERAL REGULATIONS

SARA 313 Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal regulations, Part 372.

Chemical Name	CAS Number
Isopropyl Alcohol	67-63-0

SARA 311/312 HAZARD CATEGORIES

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

CLEAN WATER ACT

This product does not contain any substances regulated as pollutants to the Clean Water Act (40CFR 122)

CERCLA Comprehensive Environmental Response Compensation and Liability Act (CERCLA 40CFR 302) or the Superfund Amendments and Reauthorization Act (SARA 40CFR 355).

NATIONAL FIRE PROTECTION ASSOCIATION (USA)

HEALTH 1
FLAMMABILITY 0
REACTIVITY 0

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U.S. STATE REGULATIONS

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS Number	California Proposition 65
Diethylene Glycol	111-46-6	Not listed
1,3 Propanediol	504-63-2	Not listed
Isopropyl Alcohol	67-63-0	Not listed
1,2 Hexanediol	6920-22-5	Not listed
Carbon Black	1333-86-4	Listed

U.S. STATE RIGHT TO KNOW REGULATIONS

Chemical Name	CA	MA	PA	MN	RI	NJ
Diethylene Glycol			X			X
1,2 Hexanediol						
1,3 Propanediol			X			X
Carbon Black	X	X	X	X		X

INTERNATIONAL REGULATIONS

TARIFF CODE HARMONIZED SYSTEM

3215.11 Printing Ink Black
USA ...00.60
EU ...00.00

CANADA

This product has been classified in accordance with the hazard criteria of the Controlled Products regulations (CPR) and the MSDS contains all the information required by the CPR.

RISK PHRASES

R36/37/38 Irritating to eyes, respiratory system and skin
R40 Limited evidence of carcinogenic effect
R66 Repeated exposure may cause skin dryness or cracking

SAFETY PHRASES

S24 Avoid contact with eyes
S25 Avoid contact with eyes
S26 In case of contact with eyes, rinse immediately with water for 15 minutes.
Seek medical attention
S36/S37 Wear suitable gloves

S46

If swallowed seek medical advice immediately

SECTION 16: OTHER INFORMATION

DISCLAIMER: While Z-Tec Automation Systems Inc. believes that the data set forth in this sheet is accurate and represents the best information currently available to Z-Tec, Z-Tec Automation Systems Inc. makes no warranty, expressed or implied, with respect thereto and expressly disclaims all liability for reliance thereon.