



THE PILOT PEN CO., (THAILAND) LTD

ISSUE NO : 01

REVISION NO. : 01

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MATERIAL SAFETY DATA SHEET

1. Production & Company Identification

1.1 Writing Ink Names	: SCN (Black,Red,Blue,Green)
1.2 Writing Instrument Names	: SCN-F (Black, Red,Blue,Green) : SCN-B (Black,Red,Blue,Green) : SCI-R (Black,Red,Blue,Green)
1.3 Manufacturer / Supplier	: THE PILOT PEN CO.,(THAILAND)LTD.
Address	: 40/1-3 Moo 12 Bangbon 5 Rd. Nongkhaem, Bangkok 10160 Thailand
Telephone number	: (662) 429-3950
Fax number	: (662) 429-3954

2. Composition / Information on Ingredients

Writing ink

Substance / Mixture

	<u>Cas no.</u>	<u>Weight (%)</u>
Xylene	1330-20-7	44.72 ~ 58.48
Ethylbenzene	100-41-4	7.28 ~ 9.52 (Impurities about 14% in Xylene)
n-Butanol	71-36-3	10.0 ~ 20.0
1- Methoxy-2-Propanol	107-98-2	5.00 (Black Ink)

3. Hazards Identification

3.1 Writing ink

Class name of Hazardous chemical for SDS in Japan

Flammable Liquid
Acute Toxic substances

- | | |
|----------------------------------|---|
| 1) Physical and Chemical hazards | : Flammable liquid |
| 2) Adverse human health effects | : Irritating to eyes
: Irritating to skin
: Harmful by inhalation
: Harmful by swallowed |
| 3) Environmental effect | : Not available |

3.2 Writing Instrument : Follow the local law and regulations in your country

4. First Aid Measures

Writing ink

- | | |
|-------------------|--|
| 4.1) Eye contact | : Gently rinse the effected eyes with clean water for at least 15 minutes and refer for medical attention. |
| 4.2) Skin contact | : Wash the affected area under tepid running water using a mild soap |
| 4.3) Inhalation | : Remove the victim from the contamination immediately to fresh air and refer for medical attention. |
| 4.4) Ingestion | : Refer for medical attention |



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5. Fire-Fighting Measures

Writing ink

- 5.1) Extinguishing media : In case of fire use water spray, foam, dry chemical powder or carbon dioxide.
- 5.2) Specific hazard with regard to fire fighting measures : Apply water from a safe distance to cool and protect surrounding area.

6. Accidental Release Measures

Writing ink and Writing Instrument

Absorb spill with material (e.g. dry sand or earth, cloth), then place in a chemical waste containers

7. Handling & Storage

7.1) Handling

- Writing ink : Avoid rough handling of dropping.
: Keep container tightly closed.
: Water protective safety glasses, gloves

7.2) Storage

- Writing ink : Inside storage should be in a well-ventilated, noncombustible location, away from all position source of ignition.
: Follow the local law and regulations in your country
- Writing Instrument : Follow the local law and regulations in your country

8. Exposure control / Personal protection

8.1) Control parameters

Writing ink

Xylene	100 ppm.
Ethylbenzene	100 ppm.
n-Butanol	50 ppm.
1- Methoxy-2-Propanol	100 ppm.

8.2) Engineering measures

- 1) Writing ink : Use with local exhaust ventilation
- 2) Writing Instrument : Not required

8.3) Personal protective equipment

1) Writing ink

- Respiratory protection : Industrial canister gas masks.
- Eye protection : Safety glasses
- Hand, Skin and Body protection : Rubber gloves

- 2) Writing Instrument : Not required

9. Physical & Chemical properties

Physical state, form :

- 9.1) Appearance : Liquid
- 9.2) Color : Black, Red, Blue, Green, Pink, Violet
- 9.3) Density : 0.882 - 0.936@20.0 °C



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9.4) Flash point	: 27.0 ° C (o-Xylene) : 23.2 ° C (m-Xylene) : 27.0 ° C (p-Xylene)
9.5) Autoignition temperature	: 464 ° C (o-Xylene) : 563 ° C (m-Xylene) : 564 ° C (p-Xylene)
9.6) Upper and Lower explosion limit	: 7.5 Vol.%, 1.0 Vol.% (o-Xylene) : 7.0 Vol.%, 1.1 Vol.% (m-Xylene) : 7.0 Vol.%, 1.1 Vol.% (p-Xylene)
9.7) Boiling point	: 144.41 ° C (o-Xylene) : 139.35 ° C (m-Xylene) : 138.35 ° C (p-Xylene)
9.8) Vapor pressure	: 4.8 mmHg@20.0 ° C (o-Xylene) : 6.2 mmHg@20.0 ° C (m-Xylene) : 6.6 mmHg@20.0 ° C (p-Xylene)
9.9) Solubility in water	: Insoluble
9.10) Solubility in	

10. Stability & Reactivity

Writing ink	
10.1) Flammability	: Flammable
10.2) Spontaneous combustibility	: Not available
10.3) Reactivity with water	: This material is stable
10.4) Oxidizibility	: This material is stable
10.5) Self-reactivity	: This material is stable
10.6) Stability & Reactivity	: This product is considered a stable material under normal and anticipated storage and handling conditions.

11. Toxicological Information

11.1) Corrosive and irritant properties	: No data.
11.2) Allergenic and sensitizing effect	: No data
11.3) Acute toxicity	: Xylene LD50 8640 mg./kg (Rat oral) n-Butanol LD50 2500 mg./kg(Rat oral) LD50 4200 mg./kg(Rabbit Skin) : 1-Methoxy-2-Propanol LD50 6.6 g./kg (Rat oral) LD50 13.0 g./kg (Rat Skin)



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11.4) Sub-chronic toxicity	: Xylene	
	Headache (Human 30 ppm. Inhalation)	
	Nausea (Human 100 ppm. Inhalation)	
	: n-Butanol	No data
	: 1-Methoxy-2-Propanol	No data
11.5) Chronic toxicity	: No data	
11.6) Carcinogenic effects	: No data	
11.7) Mutagenic effects	: No data	
11.8) Effects on the reproductive system	: No data	
11.9) Teratogenic effects	: No data	

12. Ecological information

Writing ink

12.1) Biodegradability	: Xylene	Good
	: n-Butanol	Good
	: 1-Methoxy-2-Propanol	Good
12.2) Bioaccumulation	No data	
12.3) Fish toxicity	: Xylene	
	56 ppm.(TLm48 : Carp)	
	32 ppm.(TLm3 : Water Flea)	
	n-Butanol	
	LC50 1900 mg./litre x 24 hrs (Goldfish)	
	: 1-Methoxy-2-Propanol	
	No data	

13. Disposal consideration

Writing Ink and Writing Instrument
Follow all regulations in your country

14. Transport information

14.1 Writing Ink and Writing Instrument	
Follow all regulations in your country	
14.2 Writing ink	
- UN Class	: Class 3
- UN No	: 1993 (Writing Instrument)
	: 1210 (Writing ink)

15. Regulatory information

Writing Ink and Writing Instrument
Follow all regulations in your country

16. Other information

References

The information here is given in good faith, but no warranty, express or implied is made.

TEST REPORT

NUMBER: TH-64373

APPLICANT: THE PILOTPEN CO.,(THAILAND) LTD.
331,331/1-3 SILOM RD.,
BANGRAK, BANGKOK 10500
ATTN: K.WECHAKIT

DATE: DEC 01, 2017

SAMPLE DESCRIPTION:

FOUR (4) PACKS OF SUBMITTED SAMPLE SAID TO BE MARKER

ITEM NO : SCN-FB
DATE SAMPLE RECEIVED : JUNE 30, 2004

TESTS CONDUCTED:

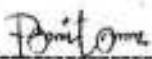
AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

CONCLUSION:

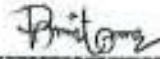
TESTED SAMPLES	STANDARD	RESULT
SUBMITTED SAMPLES	EN71 PART 3 : 1994 WITH THE INCORPORATION OF AMENDMENT A1:2000	PASS

PREPARED AND CHECKED BY :
FOR INTERTEK TESTING SERVICES

AUTHORIZED BY :
FOR INTERTEK TESTING SERVICES



PAWEENA THAPANA-ANANT
SUPERVISOR
TOYS, FOOD & HARDLINES DIVISION



PHANIT HITAPONG
DIVISION MANAGER
TOYS, FOOD & HARDLINES DIVISION

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TEST REPORT

NUMBER: TH-64373

TESTS CONDUCTED

1 TOXIC ELEMENTS ANALYSIS

AS PER EUROPEAN STANDARD ON SAFETY OF TOYS EN71 PART 3 : 1994 WITH THE INCORPORATION OF AMENDMENT A1:2000, TOXIC ELEMENTS MIGRATION WERE DETERMINED BY INDUCTIVELY COUPLE PLASMA OPTICAL EMISSION SPECTROMETRY.

	<u>RESULT IN mg/kg</u>					<u>LIMIT</u>
	(A)	(B)	(C)	(D)	(E)	<u>mg/kg</u>
SOL. BARIUM (Ba)	<5	<5	<5	<5	<5	1000
SOL. LEAD (Pb)	<5	<5	<5	<5	<5	90
SOL. CADMIUM (Cd)	<5	<5	<5	<5	<5	75
SOL. ANTIMONY (Sb)	<5	<5	<5	<5	<5	60
SOL. SELENIUM (Se)	<5	<5	<5	<5	<5	500
SOL. CHROMIUM (Cr)	<5	<5	<5	<5	<5	60
SOL. MERCURY (Hg)	<5	<5	<5	<5	<5	60
SOL. ARSENIC (As)	2	<1	<1	2	<1	25

REMARK : SOL. = SOLUBLE
 < = LESS THAN
 mg/kg = MILLIGRAM PER KILOGRAM BASED ON WEIGHT OF SAMPLE;
 (A) = MULTICOLOR SILKSCREEN ON METAL
 (B) = BLACK/RED PLASTIC
 (C) = BLUE/GREEN PLASTIC
 (D) = BLACK/RED INK
 (E) = BLUE/GREEN INK

DATE TEST STARTED : JULY 06, 2017
 ***** E N D *****/NP

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TEST REPORT

NUMBER: TH-75708

APPLICANT: THE PILOT PEN CO., (T) LTD.
40/3 MOO 12 BANGBON 5 RD.,
NONGKHAEM SUB-DISTRICT,
NONGKHAEM DISTRICT, BANGKOK 10160

DATE: **DEC 01, 2017**

SAMPLE DESCRIPTION:

ONE (1) SET OF SUBMITTED SAMPLE SAID TO BE REFILL INK FOR SCN-F/B
MARKER WHICH COMPOSES OF THE FOLLOWING COMPONENTS :
(A) INK
(B) PLASTIC CAP
(C) PLASTIC PACKING
(D) PLASTIC DROPPER

ITEM NAME : ROFILL INK FOR SCN-F/B MARKER
MODEL NO.: **SCI-R** (BLACK, RED, BLUE, GREEN)
MANUFACTURER : THE PILOT PEN CO., (T) LTD.
DATE SAMPLE RECEIVED : JUNE 13, 2005

TESTS CONDUCTED:

AS REQUESTED BY THE APPLICANT, FOR DETAILS REFER TO ATTACHED PAGE(S)

CONCLUSION:


TESTED SAMPLES	STANDARD	RESULT
SUBMITTED SAMPLE SET	EN71 PART 3 : 1994 WITH THE INCORPORATION OF AMENDMENT A1:2000	PASS

PREPARED AND CHECKED BY :
FOR INTERTEK TESTING SERVICES

AUTHORIZED BY :
FOR INTERTEK TESTING SERVICES



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TEST REPORT

NUMBER: TH-75708

TESTS CONDUCTED

1 TOXIC ELEMENTS ANALYSIS
AS PER EUROPEAN STANDARD ON SAFETY OF TOYS EN71 PART 3 : 1994 WITH THE INCORPORATION OF AMENDMENT A1:2000, TOXIC ELEMENTS MIGRATION WERE DETERMINED BY INDUCTIVELY COUPLE PLASMA OPTICAL EMISSION SPECTROMETRY.

	<u>RESULT IN mg/kg</u>										<u>LIMIT</u>
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	<u>mg/kg</u>
SOL. BARIUM (Ba)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	1000
SOL. LEAD (Pb)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	90
SOL. CADMIUM (Cd)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	75
SOL. ANTIMONY (Sb)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	60
SOL. SELENIUM (Se)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	500
SOL. CHROMIUM (Cr)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	60
SOL. MERCURY (Hg)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	60
SOL. ARSENIC (As)	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	25

REMARK : SOL. = SOLUBLE
 < = LESS THAN
 mg/kg = MILLIGRAM PER KILOGRAM BASED ON WEIGHT OF SAMPLE;
 (A) = BLACK INK
 (B) = RED INK
 (C) = BLUE INK
 (D) = GREEN INK
 (E) = PLASTIC PACKING
 (F) = CLEAR PLASTIC
 (G) = BLACK PLASTIC LAP
 (H) = RED PLASTIC CAP
 (I) = BLUE PLASTIC CAP
 (J) = GREEN PLASTIC CAP

DATE TEST STARTED : JUNE 06, 2017
 ***** K N D *****/NP