

# **Material Safety Data Sheet**

**AS-500 DK2**

**TAIYO INK MFG. CO., (KOREA) LTD**

# MATERIAL SAFETY DATA SHEET

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SECTION 1	IDENTIFICATION
1. PRODUCT	AS-500 DK2
2. GENERAL CHEMICAL PROPERTIES	UV curing etching resist for PCB
3. HAZARD CLASSIFICATION	Irritative material
4. USE	Etching resist for PCB
5. MANUFACTURE	TAIYO INK MFG. CO., (KOREA) LTD 1058-8,SINGIL-DONG, DANWON-GU, ANSAN-CITY KYUNGKI-DO REPUBLIC OF KOREA (TEL :82-31-491-9250)
6. DISTRIBUTOR	TAIYO INK MFG. CO., (KOREA) LTD 1058-8,SINGIL-DONG, DANWON-GU, ANSAN-CITY KYUNGKI-DO REPUBLIC OF KOREA (TEL :82-31-491-9250)
7. WRITING PART	RESEARCH INSTITUTE OF TAIYO INK MFG. CO., (KOREA) LTD.
8. ENACTMENT DATE	MARCH 26, 2004
9. REVISION DATE	MARCH 26, 2004 (Rev. 0)

SECTION 2	COMPOSITION/INFORMATION ON INGREDIENTS	
INGREDIENTS	CAS No.	CONTENTS(%)
- Phthalocyanine Blue	147-14-8	0.9%
- Acrylic Monomer		10.4%
- Modified Acrylate Resin		39.7%

SECTION 3	HAZARD IDENTIFICATION
1. IN CASE OF EMERGENCY	: Wash with plenty of soap and water.
2. RISK INFORMATION	: NFPA Index (health = 2, fire= 1, reaction = 1)
3. LATENCY EFFECT FOR HEALTH	
- EYE CONTACT	: Slight irritation.
- SKIN CONTACT	: May irritate by repetitive or continuous contacting.
- INHALATION	: From the space where it is shut tightly, the case which long time or excess amount will inhale the fume it is nauseous, vomit, dizzy and the internal organs damage etc. will be able to occur
- INGESTION	: May cause vomiting, gastroenteric disorder.
- CHRONIC	: N.E

SECTION 4	FIRST AID MEASURES
1. EYE CONTACT	: Rinse immediately with water and seek medical attention.
2. SKIN CONTACT	: Rinse immediately with water for at least 15 minutes after taking off working clothes.
3. INHALATION	: Move to fresh air.
4. INGESTION	: Obtain medical advice immediately.
5. WARNING FROM DOCTOR	: No specific antidote exists. Receive immediate medical attention according to the condition of a patient. If it caught a disease for skin and eye, so much grows worse by effect of different things.

SECTION 5	FIRE-FIGHTING MEASURES
1. FLASH POINT	: 128 (Seta Flash)
2. SPONTANEOUS COMBUSTION POINT	: N.E
3. MIN. FLASH POINT/MAX. FLASH POINT	: N.E/N.E
4. CLASSIFICATION AND PROVISION FOR THE FIRE SERVICES ACT.	: N.A
5. SUITABLE EXTINGUISHING MEDIA	: Sodium carbonate, Carbon tetra chloride. dry powder.
6. EXTINGUISHMENT/EXTINGUISHER	: - Non inhalation vapor, back against the wind. - Container cooling as water spray. - Check the spread of fire, extinguish the fire with suitable extinguisher. caution) Exposure for heat, spark and ignitor are possible of fire or explosion.
7. DESTRUCTION BY FIRE	: Toxic gases or vapors may be generated.
8. UNSUITABLE EXTINGUISHING MEDIA	: N.E

SECTION 6	ACCIDENTAL RELEASE MEASURES
PERSONAL PRECAUTION.	: Avoid ignition sources, contact with skin, eyes and clothing .
ENVIRONMENTAL PRECAUTION	: Waste matters are controlled by only company have a license.
METHODS FOR CLEANING OR REMOVING	: - In this case leak a small quantity of paste, wipe out a stain using dustcloth or absorb. Dispose in accordance with local regulations. - In this case leak a great quantity of paste, take in waste into a container using Scoop. Dispose in accordance with local regulations.

SECTION 7 HANDLING AND STORAGE	
<b>HANDLING</b>	: - In handling, wear safeguard. Caution of skin and eye contact - Rinse immediately with water for at least 15 minutes
<b>STORAGE</b>	: - Store in the original sealed container at 10~20 °C . - Avoid direct exposure to UV and sunlight. - Storage in ventilative and place that is no damage of snow, wind, rain etc.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION	
<b>1. TECHNICAL PROTECTIVE MEASURES.</b>	: Establish an exhauster or washing stand
<b>2. RESPIRATORY PROTECTION</b>	: Wear suitable mask to avoid inhalation of vapor.
<b>3. EYE AND HAND PROTECTION</b>	: Wear safety glasses and chemical resistant gloves
<b>4. BODY PROTECTION</b>	: Wear chemical resistant working clothes for non body contact.
<b>5. PROTECTION FOR SANITARY REASON</b>	: At skin contact, wash with plenty of soap and water
<b>6. PERMISSIBLE CONCENTRATION</b>	: N.E

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES			
<b>1. APPEARANCE</b>	: Viscous Liquid	<b>2. ODOR</b>	: Slight Odor
<b>3. pH</b>	: N.E	<b>4. SOLUBILITY</b>	: N.E.
<b>5. BOILING POINT</b>	: N.E	<b>6. MELTING POINT</b>	: N.E.
<b>7. EXPLOSIVE PROPERTIES</b>	: N.E	<b>8. OXIDATION PROPERTIES</b>	: N.E.
<b>9. VAPOUR PRESSURE / DENSITY</b>	: N.E	<b>10. SPECIFIC GRAVITY</b>	: -
<b>11. PARTITION COEFFICIENT</b>	: N.E	<b>12. VISCOSITY</b>	: -
<b>13. MOLECULAR WEIGHT</b>	: N.E	<b>14. THE OTHERS</b>	: N.E.

SECTION 10 STABILITY AND REACTIVITY	
<b>1. CHEMICAL STABILITY</b>	: Stable for 6 months in low temp.(10~20 °C )
<b>2. MATERIALS TO AVOID</b>	: Fire, Water, Strong Oxidant
<b>3. CONDITIONS TO AVOID</b>	: Direct ray of light(the sun), Ultraviolet rays, Source of heat.
<b>4. HAZARDOUS DECOMPOSITION PRODUCT</b>	: Other toxic gases or vapors may be generated in thermal decomposition.
<b>5. POSSIBILITY OF POLYMERIZATION TOXIC</b>	: N.E.

<b>SECTION 11</b>	<b>TOXICOLOGICAL INFORMATION</b>
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|-----------------------------------|--------|
| 1. EFFECT OF THE EYES             | : N.E. |
| 2. EFFECT OF THE SKIN             | : N.E. |
| 3. EFFECT OF THE ACUTE ORAL       | : N.E. |
| 4. EFFECT OF THE ACUTE INHALATION | : N.E. |
| 5. EFFECT OF THE TOXICITY         | : N.E. |
| 6. EFFECT OF THE MUTAGENICITY     | : N.E. |
| 7. EFFECT OF THE CHRONICITY       | : N.E. |
| 8. EFFECT OF THE NEXT GENERATION  | : N.E. |
| 9. EFFECT OF THE CARCINOGENICITY  | : N.E. |

<b>SECTION 12</b>	<b>THE INFLUENCE OF ENVIROMENT</b>
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| 1.AQUATIC AND<br>ECOLOGICAL INFLUENCE                                | : N.E. |
| 2.SOIL MIGRATORY   | : N.E. |
| 3.REMAINING BEHIND AND<br>DECOMPOSITION                              | : N.E. |
| 4.POSSIBILITY OF ACCUMULATION<br>WITHIN LIVING BODY OF LIVING THINGS | : N.E. |

<b>SECTION 13</b>	<b>PRECAUTION IN DISUSE</b>
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| 1.THE PRESENT CONDITION<br>OF REGULATION IN LAW<br>TO CONTROL WASTE<br>MATTERS. | : In the case of disusing illegal, you are aggravating punished in law to control waste matters (Article 58, Clause 2) and special law for controlling of environment crime (Article 7). |
| 2.DISUSE METHOD   | : Product is waste matters generated in law to control waste matters (Article 2). Only company have a license control in law to control waste matters (Article 25).                      |
| 3.PRECAUTION IN DISUSE  | : Isolate not to be leaked or outflow.   |

<b>SECTION 14</b>	<b>TRANSPORT INFORMATION</b>
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|---|------------------------|
| 1.CLACIFICATION AND<br>REGULATION IN SHIPPING<br>TRANSPORT OF DANGEROUS<br>THINGS AND STORAGE RULES | : N.E.                 |
| 2. CLACIFICATION AND<br>REGULATION IN ICAO/IATA.<br>ADR. RID  | : N.A.(128 Seta Flash) |

- 3. PRECAUTION IN TRANSPORT** : Take notice not to flow in rainwater and so on.
- Take notice of heat and Direct ray of light(the sun).
- Take notice not to flow in pollutants after opening tool.
- Take notice to leak in opening tool and breakage.

SECTION 15	REGULATORY INFORMATION
<b>1.INDUSTRY SAFETY HEALTH LAW</b>	: - Law (Article 39) : Item about indication of hazardous substance (Article 41) : Item about creation and furnishing etc. of material safety health data  - Enforcement regulation (Article 30) : Item about disbursement and putting on etc. of protection nine (Article 93) : Item about work environment measurement (Article 117~120) : Item about whole or part exhaust device
<b>2.LAW TO CONTROL TOXIC CHEMICAL MATERIALS</b>	: N.A.
<b>3.REGULATION IN THE OTHERS LAW</b>	: - Fire fighting law (Article 12) – Item about dangerous article classification standard  - Waste matters law (Article 2) : Item about appointment waste (Article 25) : Item about waste disposal (Article 58) : Item about control of environment crime - ICAO/IATA : Item about classification standard of danger material

SECTION 16	THE OTHERS INFORMATION
1.This product is mixtures and made out referring MSDS of raw material composing this product.  2.This MSDS's reliability is high because of being based on research results of TYK, other institute and literature. But do not warrant about accuracy of contents.	

\* optional

U.K. = Un-Known

N.E. = Not Established

N.A. = Not Applicable