

MATERIAL SAFETY DATA SHEET

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UVR – 110W N85

Updated : Apr. 01, 2002

MSDS No : M-U-01

SECTION 1 IDENTIFICATION

MANUFACTURE TAIYO INK MFG. CO., (KOREA) LTD TEL (031) 491 - 9250
1058-8,SIN GIL DONG, ANSAN CITY, FAX (031) 492 - 2710
KYUNG GI-DO REPUBLIC OF KOREA

DISTRBUTOR

EMERGENCY CONTRACT TEL (031) 491 - 9250

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

| INGREDIENTS | CAS No. | CONTENTS(%) | OSHA (PEL) | ACGIH (TLV) |
|---------------------------------|------------|-------------|---------------|----------------|
| Trimethylolpropane triacrylate. | 15625-89-5 | <15% | U.K | U.K |
| 2-Hydroxy ethylmethcarylate. | 868-77-9 | <12% | U.K | U.K |
| Triallyl cyanurate | 101-37-1 | <2% | U.N | U.N |

SECTION 3 HAZARDS IDENTIFICATION

INHALATION : Highly concentrated vapor irritatos nose, throat and lungs;
May cause headache and dizziness.

EYE CONTACT : Slight irritation.

SKIN CONTACT : Slight irritation.

INGESTION : Harmful, if swallowed.

SECTION 4 FIRST AID MEASURES

SKIN CONTACT : Wash with plenty of stop and water. Do not use organic solvents.

EYE CONTACT : Rinse immediately with water for at least 15 minutes.
If irritation persists, seek medical attention.

INHALATION : Move to fresh air.
If irritation persists, treat with oxygen and seek medical attention.

INGESTION : Obtain medical advice immediately. It is not recommended that
vomiting be induced except on medical advice.

SECTION 5**FIRE-FIGHTING MEASURES**

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| SUITABLE EXTINGUISHING MEDIA | : Carbon dioxide, foam, dry powder. |
| UNSUITABLE EXTINGUISHING MEDIA | : Water mist and jet. |
| EXPOSURE HAZARDS | : Burning may release oxides of carbon, nitrogen, sulphur and other toxic gases or vapours. Do not release chemically contaminated water into drains or surface water. Dispose of contaminated waters and soil according to local regulations. |
| PROTECTIVE EQUIPMENT FOR FIREFIGHTERS. | : Use full protective clothing and self-contained breathing apparatus. |
| MEASURES | : Promptly move transferable containers to another safety area. Check the speed of fire. Check the spread of fire. Extinguish the fire with suitable extinguisher the windward side. |

SECTION 6**ACCIDENTAL RELEASE MEASURES**

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| PERSONAL PRECAUTION. | : Avoid ignition sources, contact with skin, eyes and clothing. Avoid inhaling vapor. |
| ENVIRONMENTAL PRECAUTION | : Prevent contamination of soil, drains and surface water. |
| METHODS FOR CLEANING | : Scoop up or absorb into combustible material, wipe out a stain in use organic solvents. Dispose in accordance with local regulations. |

SECTION 7**HANDLING AND STORAGE**

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| HANDLING | : Handle with care. Avoid ignition sources. Ensure good ventilation and local exhaust. Do not smoke at the workplace. |
| STORAGE | : Store in the original sealed container at less than 20 °C. Avoid direct exposure to UV and sunlights. |

SECTION 8**EXPOSURE CONTROLS/PERSONAL PROTECTION**

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| People who know they are chemically sensitive, should avoid contact with this product. | |
| TECHNICAL PROTECTIVE MEASURES. | : No special safety measures required. |
| EXPOSURE CONTROLS LIMITS | : (See TLV values shown in section 2) |
| RESPIRATORY PROTECTION | : Wear suitable mask to avoid inhalation of vapor. |
| HAND PROTECTION | : Wear chemical resistant gloves. |
| EYE PROTECTION | : Wear safety glasses. |
| SKIN PROTECTION | : Wear suitable protective working cloths. |

| SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES | | | |
|--|--------|-------------------------|-------------|
| BOILING POINT | : N.A | COLOR | : White |
| EXPLOSIVE PROPERTIES | : N.E. | FORM | : Liquid |
| VAPOUR PRESSURE | : N.E. | ODOR | : N.E. |
| SOLUBILITY IN WATER | : N.E. | EVAPORATION RATE | : N.E |
| VAPOUR DENSITY | : N.E | SPECIFIC GRAVITY | : 1.45-1.65 |

* Data of the organic solvent or monomers contained in this product is quoted.

| SECTION 10 STABILITY AND REACTIVITY | |
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| STABILITY | : Stable |
| CONDITIONS TO AVOID | : Heat and sunlight |
| MATERIALS TO AVOID | : Strong acids, strong bases, peroxides and strong oxidizing agents. |
| HAZARDOUS DECOMPOSITION PRODUCT | : Burning may release oxides of carbon nitrogen, sulphur and other toxic gases or vapors. |

| SECTION 11 TOXICOLOGICAL INFORMATION | |
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PRIMARY ROUTE(S) OF ENTRY

| DERMAL | INHALATION | INGESTION |
|-------------------------|--|-----------|
| TOXICITY STUDIES | : Toxicity studies have not been carried out on this material. Toxicity information available for the products listed in section 2 is given below. | |

HEALTH HAZARDS

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| ACUTE INGESTION TOXICITY | : N.E. |
| ACUTE SKIN IRRITATION | : 2-Hydroxy ethyl methacrylate PII 6-7.5 |
| MUTAGENICITY | : None |

(Epoxy resin mentioned here may cause mutagenicity)

CARCINOGENICITY

| NTP | IARC | OSHA | NOT LISTED |
|--|------|------|------------|
| Silica Crystalline mentioned at Section 2 is classified to a carcinogen, because of the specific State furnished in a powder form and which causes Lung cancers, due to the direct inhalation. This case, it is mixed together with other substances and which is furnished in a liquid preparation, having no capability of allowing any direct inhalation of Silica Crystallin itself. This material furnished in a liquid preparation has no potential to cause any Lung cancers. | | | |

SYMPTOMS OF OVER EXPOSURE

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| INHALATION | : Slight irritation to respiratory tract. Highly concentrated vapor may cause headaches, dizziness and nausea. |
| EYES | : Slight irritation. |
| SKIN | : Slight irritation. Frequent or prolonged exposures may cause dermatitis. |
| INGESTION | : Expected to have a low order of toxicity. |

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| SECTION 12 | ECOLOGICAL INFORMATION |
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| ACUTE FISH TOXICIT BIODEGRADABILITY | : Ecological data are not available. : U.K. |
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| SECTION 13 | DISPOSAL CONSIDERRATION |
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Incineration or landfill in accordance with local regulation.

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| SECTION 14 | TRANSPORT INFORMATION |
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| ADR IMDG-CODE IATA US DOT UN FLASH POINT | : Inflammable liquid : Free : Free : Combustible liquid : Free : >110 (Seta CC) |
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| SECTION 15 | REGULATORY INFORMATION |
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| EEC LABELING | : Xi = Harmful. |
| RISK PHRASES | : R43 – May cause sensitization by skin contact. |
| SAFETY PHRASES | : S26 – In case of contact with eyes, rinse immediately with plenty of (to be specified by the manufacturer). S28 – After contact with skin, wash immediately with plenty of (to be specified by the manufacturer). |
| TSCA/ENIECS | : Substances contained in this product are listed on the TSCA/ EINECS inventories. |

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| SECTION 16 | OTHER INFORMATION |
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This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties. It may not be valid for this material, if used in combination with any other materials.

Data provided in Section 11, 12 and 15 are quoted from raw material's MSDSs.