Material Safety Data Sheets

PC Series UV Ink (MSDS)

Date: January 1, 2010 Page 1 of 6

1. Identification of substance:

Product: Image UK/PC Ink Series

Trade name: PC Series UV Ink

Customer #:

Supplier: Image Inks®

Evansville, Indiana

Telephone: (812) 468-8727

EMERGENCY PHONE NUMBER:

2. <u>Composition / Data on components:</u>

Chemical characterization:

Photoinitiator	3-7
Acrylated oligomer	20-30
Multifunctional acrylates	10-20
Talc	1-5
Silicone acrylate	1-5
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Pigment	20-30

Additional information:

For information about ingredients with occupational exposure limits see section 8.

3. <u>Hazards Identification</u>

Hazardous designation Xi Irritant

Information pertaining to particular dangers for man and environment

Irritating to eyes, respiratory system and skin

May cause sensitization by skin contact.

Further information

Carcinogenicity:

NTP: NO

IARC: YES (Group 2B, see below)

OSHA: NO

(Based on information provided to us by our suppliers, PC series inks comply with: CFR 29.)

Classification system

NFPA ratings (scale 0-4) / Health = 1 / Fire = 1 / Reactivity = 1

4. First Aid Measures

General Information

When symptoms persist or in all cases of doubt, seek medical attention. Never give anything by mouth to an unconscious person.

- After inhalation:

Remove to fresh air. Keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

If unconscious, CALL 911 and place in recovery position.

- After skin contact:

Remove contaminated clothing immediately.

Wash skin thoroughly with soap and water or use recognized skin cleanser.

Do NOT use solvents or thinners.

- After eye contact:

Remove contact lenses and /or glasses immediately.

Flush eyes with clean water generously for at least 10 minutes, holding eyelids open and apart.

Seek medical attention immediately.

- After swallowing:

Seek medical attention immediately.

Keep at rest.

Do NOT Induce Vomiting.

5. Fire Fighting Measures

- Suitable extinguishing agents:

Alcohol resistant foam, CO2, powders, water spray, if applied under high pressure.

For safety reasons unsuitable for extinguishing agents, use water jet.

-Special hazards caused by the material, its products of combustion or resulting gases:

Fire will produce dense black smoke.

Exposure to hazardous decomposition products may cause a health hazard.

Appropriate breathing apparatus may be required.

Cool closed containers exposed to fire with water spray.

-Additional information:

Collect run-off from fire fighting.

6. Accidental Release Measures

- Person-related safety precautions:

Exclude sources of ignition.

Ventilate the areas.

Avoid breathing vapors.

Refer to protective measures listed in section 7 and 8.

- Measures for environmental protection:

Do not allow to enter drains. If the product contaminates rivers, lakes or sewages inform respective authorities.

-Measures for cleaning and collecting:

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and in a specified disposal container, dispose of according to federal, state and local laws. Clean area with a detergent. Avoid use of solvents.

7. Handling and Storage

-Information for Safe Handling:

Avoid eye and skin contact. Avoid incidental ingestion.

Avoid breathing Vapors.

Avoid smoking, eating and drinking in usage areas.

For personal protection see section 8.

Comply with health and safety at work laws (see OSHA regulations for info).

-Information for Safe Storage:

Keep containers tightly closed.

Never use pressure to empty: container is not a pressure vessel.

No smoking around chemicals.

Prevent unauthorized access.

Containers, which are open, must be carefully resealed and kept upright to avoid leakage.

Keep well away from oxidizing agents and strongly alkaline or strongly acid materials.

Always keep in containers the same materials as original.

Store in a dry well ventilated area.

Keep away from heat and direct sunlight.

Observe label precautions.

Store in compliance with all federal, state and local regulations that pertain.

8. Exposure controls and personal protection

-Additional information about design of technical systems:

Always provide adequate ventilation.

If relevant, apply technical measures to comply with the occupational exposure limits. This should be achieved by a good general extraction and, if practically feasible, by the use of a local exhaust ventilation.

- Personal protective equipment:

Breathing equipment: None required under normal use, and/or if the occupational exposure limits can not be met, in exceptional cases, suitable respiratory protection should be worn only for a short period of time.

-Components with limit values that require monitoring at the work place: N/A, numerical data if specified-would be taken from the valid federal, state and local lists.

Additional Occupational Exposure Limit Values for possible hazards during processing: 14807-96-6 Talc (Mg3H2(Si03)4 (#25%)		
OSHA PEL	*Respirable Dust 20mppcf ppm Containing <1% quartz	

Protection of hands: For prolonged or repeated contact, use protective gloves: Rubber, Latex, Neoprene, etc.. Barrier creams may help the unprotected areas of skin; barrier creams should not be applied over any ink already on skin.

Eye protection: Use goggles with side panels to protect eyes.

Body protection: Avoid contact with skin. Skin should be washed with soap and water after contact.

9. Physical and chemical properties:

- Form: Paste / Liquid

- Color: Yes, according to trade name of product

- Odor: Mild

- Flash point: $> 100^{\circ}\text{C} (>212^{\circ}\text{F})$

- Vapor pressure at 20°C (68°F): 0.1 hPa - Density: not determined

- Solubility in / miscibility with water: partly or not miscible

10. Stability and reactivity

-Thermal decomposition / conditions to be avoided:

Stable under recommended storage and handling conditions (see section 7.).

Heating not above 60°Celsius (sunshine). May cause exothermic polymerization.

Product may be polymerizate by high temperatures. The polymerization is an exothermic reaction. The heat hereby can damage the basin and/or a fire can arise.

Keep away from oxidizing agents, alkaline, and acid materials.

Avoid contact with peroxides, metallic ions and initiators, which produce free radicals.

Warranties and / or Guarantees are neither expressed nor implied.

- Materials to be avoided:

Keep away from oxidizing agents, strongly alkaline and strongly acid material in order to avoid exothermic reactions.

Avoid contact with peroxides, metallic ions and initiators, which produce free radicals.

- Dangerous products of decomposition:

Exposure to high temperatures may produce hazardous decomposition products such as: Carbon Dioxide, Carbon Monoxide, Smoke, Oxides of Nitrogen (nox).

11. Toxicological information

Acrylic components of the preparation have irritating properties.

Prolonged or repeated contact with this product may result in irritation of the mucous membranes and redness, blistering, and desiccation of the skin.

Cases of allergic skin reactions have been observed.

Ingestion may cause collapse, severe respiratory difficulties and adverse effects on the central nervous system.

It is possible that direct skin contact can cause skin irritation. The effect will depend on intensity and duration of contact as well as individual disposition. Certain individuals may develop sensitization or allergic reaction after repeated exposure and have to be moved from the source of contact.

12. Ecological information:

Recommend that products should not be allowed to enter drains, waterways, or the soil. This preparation contains substances which are classified as dangerous for the environment.

13. Disposal considerations:

- Product:

Recommendations: do not allow to enter drains.

- Uncleaned packages:

Recommendations:Emptied containers should be supplied to scrap utilization reclaimer or recycled. Not emptied containers and ink residues should be disposed of according to local, state and federal regulations. (Non- USDOT / USEPA HAZARDOUS MATERIAL). Use a reputable disposal company for all waste inks. Information based on one Indiana HM disposal supplier analysis.

14. Transport information

Not classified according to transport regulations for dangerous goods (like RID/ADR, DOT, etc).

IATA: Not regulated by IATA

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15. Regulations

Code letter and hazard designation of product: Xi irritant

Hazard-determining components of labeling:Oligomer Acrylates
Pentaerithritol triacrylate

-Toxic Substances Control Act (TSCA)

Chemical components of this product are contained on the Sector 8(B) Chemical substance inventory list (40CFR710).

-Risk phrases:

Irritating to eyes, respiratory system and skin.

May cause sensitization by skin contact.

-Safety phrases:

Avoid contact with skin.

Wear suitable gloves and eye / face protection.

In case of eye contamination rinse immediately with plenty of water and seek medical Attention.

After contact with skin, wash with hand cleaner and water.

16. Other Information:

The information here in this MSDS is based on the information supplied to us by our suppliers and their current knowledge.

The users working conditions are beyond our knowledge and control.

It is always the responsibility of the user to take all necessary steps to fulfill the demands of federal, state and local laws and legislation.

The information in this MSDS is meant as a description of safety requirements of our product; it is not meant to be a guarantee of the product or its properties.

For additional information Please call The Image Inks® Company!

The Image Inks® Company is the distributor of UV curable printing inks. The Image Inks®

Company can be contacted at: Phone: 800-264-5728, 812-468-8727

Fax: 812-468-8747

E-mail: orders@ImageInks.com

Warranties and or Guarantees are neither expressed nor implied.

IN CASE OF AN EMERGENCY: CONTACT CHEM-TELL 1-800-255-3924

THE IMAGE INKS® COMPANY 908 EAST FRANKLIN STREET EVANSVILLE, INDIANA 47711

Phone: 812-468-8727 Fax: 812-468-8747