

**MATERIAL SAFETY DATA SHEET****1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Identifier: UV VP RANGE OF INKS

General Use: Printing ink

Product description: A mixture of pigments in multifunctional acrylate vehicle.

**MANUFACTURER:**

T&amp;K TOKA Co., Ltd.

No.20-4, Izumi-chou, Itabashi-ku, Tokyo

174-0055,Japan

**EMERGENCY TELEPHONE NUMBERS:**

Telephone: 81-3-3963-0512

8:30-17:30 Jpn M-F

Facsimile: 81-3-3963-5249

24Hrs Every day

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

	wt%	CAS#
Chlorinated polyester resin	25-35	Not open
Acrylic ester monomer A	20-30	15625-89-5
Acrylic ester monomer B	10-20	94108-97-1
Photo initiator	5-10	71868-10-5
Pigments	5-45	Various
Additives	- 5	Various

OSHA HAZARDS Exposure Limits 8 hrs. TWA(ppm) (29 CFR 1910.1200)

	OSHA PEL	ACGIH PEL	Supplier
Chlorinated polyeste resin	Not-established	Not-established	----
Acrylic ester monomer A	Not-established	Not-established	----
Acrylic ester monomer B	Not-established	Not-established	----
Photo initiator	Not-established	Not-established	----
Pigments	Not-established	Not-established	----
Additives	Not-established	Not-established	----

SARA 313 INFORMATION: This product contains none of the substances subject to the reporting requirements of Section 313 of the Title III of the SARA of 1986 and 40 CFR Part 372.

TSCA: Styrene/acrylic resin is not on the 8(b) Inventory list. Other ingredients are listed.

**3. HAZARDOUS IDENTIFICATION****EMERGENCY OVERVIEW**

Colored paste with slightly acrylic odor.

**POTENTIAL HEALTH EFFECTS****INHALATION:**

No information available.

**SKIN CONTACT:**

May cause skin irritation. Symptoms of irritation may include localized rash and swelling. Prolonged skin contact may cause skin sensitization.

**EYE CONTACT:**

May cause minor eye irritation. Symptoms of irritation may include excessive tearing, redness and blinking.

**INGESTION:**

May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**CARCINOGENICITY:**

Not known to be carcinogenic.

NTP? No IARC MONOGAPHS? No OSHA REGULATED? No

\*Black ink contains carbon black. Carbon black evaluated as Group 2B(possibly carcinogenic to humans). Printing inks are not classifiable as to their carcinogenicity to humans(Group 3).

**4. FIRST AID MEASURES****INHALATION:**

Remove exposed person to fresh air, perform artificial respiration if necessary.

Call a physician.

**EYE CONTACT:** Immediately flush eyes with plenty of water at least 15 min. call a physician.

**SKIN CONTACT:** Immediately wash skin with soap and plenty of water.

**INGESTION:**

Give milk, egg white, gelatin solution, or if these are not available, large quantity of water. Avoid alcohol. Contact a poison center and have MSDS information available.

**5. FIRE-FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Foam, asphyxiator, dry chemical.

**SPECIAL FIRE-FIGHTING PROCEDURES:**

Keep out of smoke. Cool exposed containers with water spray. Fight fire from upwind position. Use self-contained breathing equipment.

**UNUSUAL FIRE AND EXPLOSION HAZARDOUS:** None.

**HAZARDOUS COMBUSTION PRODUCTS:**

Thermal decomposition products may include nitrogen, sulfur and toxic oxides of carbon.

**6. ACCIDENTAL RELEASE MEASURES**

**GENERAL:** Avoid skin contact and breathing vapor.

**LAND SPILL:**

Enclose spilled material with the use of dinking. And then absorb spilled material with absorbent and place in covered container. Scrub contaminated area with detergent and bleach or caustic soda solution. Rinse with water.

**WATER SPILLED:**

Prevent spills from entering sewers and waterway.

**7. HANDLING AND STORAGE**

**WARNING:** Avoid heat and direct sunlight.

**PRECAUTION:** Store in dry cool area.

**STORAGE TEMPERATURE:** 5°C to not exceed 40°C.

**STORAGE PRESSURE:** Atmospheric

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****VENTILATION:**

Maintain exposure levels as low as possible through use of general and local exhaust ventilation.

**PERSONAL PROTECTION:**

Chemical splash-proof goggle for eye protection. Impervious gloves for skin protection. Use NIOSH approved respirators when necessary.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Vapor pressure	: Not available	Vapor density	: Not available
Specific gravity	: 1.10-1.50(23°C)	Evaporation rate	: Not available
Solubility in water	: Not available	pH	: Not available
Boiling point	: Not available	Freezing point	: Not available
Flash point and method:	>170°C	Flammable limits LFL&UFL	: Not available
Autoignition temperature:	Not available		

**10. STABILITY AND REACTIVITY**

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID

Radical initiator media.

HAZARDOUS DECOMPOSITION:

This material is stable under recommended storage and handling conditions.

HAZARDOUS POLYMERIZATION:

High temperature may cause rapid polymerization. Also exposure to UV light.

**11. TOXICOLOGICAL INFORMATION**

Not available

**12. ECOLOGICAL INFORMATION**

Not available

**13. DISPORSAL CONDITION**

Dispose in accordance with local, state and federal regulation.

**14. TRANSPORT INFORMATION**

PROPER SHIPPING NAME: Not regulated

**15. REGULATORY INFORMATION**

TSCA(Toxic Substance Control Act)

All the components are listed on TSCA Inventory or is subject to a Low Volume Exemption.

**16. OTHER INFORMATION**

REVISION SUMMARY    June 14, 2007    Original MSDS established

To the best of our knowledge, the information contained herein is accurate. However, neither T&K TOKA Co., Ltd. nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution.

Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.