

# MATERIAL SAFETY DATA SHEET

PRODUCT NAME: UV BON 400 WHITE

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DATA PREPARED:MAY 9, 2004  
MSDS No.:BMUV-001-07

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier : UV BON 400 WHITE  
General Use : Printing Ink  
Product description : A mixture of pigment in multifunctional acrylate vehicle.

MANUFACTURER :  
T&K TOKA Co., Ltd  
No. 20-4, Izumi-Chou, Itabashi-ku, Tokyo  
174-005, Japan  
TELEPHONE : 81-3-3960-5101

EMERGENCY TELEPHONES NUMBERS:  
Telephone : 81-49-259-6422 8:30 - 17:30 Jpn M-F  
Facsimile : 81-49-259-7366 24Hrs every day

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

	CAS#	CONTENT		OSHA		ACGHI	
		wt%		TWA	STEL	TWA	STEL
2-Ppropenic acid,polymer with 2-ethyl-2-(Hydroxymethyl)-1 3=propanediol and 3a,4,7,7a- tetrahydro-1,3-isobenzofurandione	53192-18-0	50 - 55		n/e	n/e	n/e	n/e
Ethere,homopolymer	9002-88-4	1 - 5		n/e	n/e	n/e	n/e
Titanium dioxide	13463-67-7	35 - 40	10mg/m <sup>3</sup>	n/e	10mg/m <sup>3</sup>	n/e	n/e
Silica	112945-52-5	1 - 5		n/e	n/e	n/e	n/e
Methanone,(1-hydroxycyclohexyl) Phenyl	947-19-3	1 - 5		n/e	n/e	n/e	n/e
Benzoic,acid,4-(dimethylamino)- 2-ethylhexyl ester n/e - none established	21245-01-2	5 - 10		n/e	n/e	n/e	n/e

OSHA Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

Titanium dioxide is considered hazardous ingredient (Listed on "Table Z-1-A")

Silica PEI 15mg/m<sup>3</sup> (total dust) , 5mg/m<sup>3</sup> (respirable dust) Ethene, homopolymer PEI15mg/m<sup>3</sup>

ACGHI : Silica TLV-TWA 10mg/m<sup>3</sup> (total dust) Ethene, homopolymer TLV 10mg/m<sup>3</sup>

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

TSCA : The ingredient of this product are all on the 8(b) TSCA Inventory List.

## 3. HAZARDOUS IDENTIFICATION

### EMERGENCY OVERVIEW

Colored paste with slightly acrylic odor.

### POTENTIAL HEALTH EFFECTS

SKIN CONTACT : Primary irritation. Prolonged contact may cause burns. Irritation may be delayed until prolonged contact has occurred. Prolonged or repeated skin contact may also result in skin sensitization in some individuals.

EYE CONTACT : Severely irritating. May cause permanent damage if not removed immediately.

INHALATION : Mists may cause irritation to nose, throat and lungs.

INGESTION : May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

CARCINOGENICITY : No specific data are available on this product; however, it contains none of the substance listed on NTP, IARC or OSHA as ingredients.

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### 4. FIRST AID MEASURES

**EYE CONTACT** : In case of eye contact, immediately rinse with clean water for 15 - 20 minutes. Retract eyelids often. Obtain emergency medical attention if pain, blinking, tears or redness persist.

**SKIN CONTACT** : Remove contaminated clothing as needed. Wash skin thoroughly with mild soap / water. Flush with lukewarm water for 15 minutes.

**INHALATION** : If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

**INGESTION** : Ingestion unlikely. However if ingested, obtained emergency medical attention.

### 5. FIRE-FIGHTING MEASURES

**EXTINGUISH MEDIA** : Dry Chemical. Carbon Dioxide. Foam. Water Spray. Water Fog

**SPECIAL FIRE FIGHTING PROCEDURES / UNUSUAL FIRE OR EXPLOSION HAZARDS**:  
Do not enter fire area without proper protection. Fight fire from safe distance/ protected location.  
Use water spray/fog for cooling.  
System may Plug with notify authorities if liquid enters sewer/public waters.  
High temperatures may cause spontaneous polymerizing reaction, generating heat/pressure.  
Closed containers may rupture/explode during runaway polymerization.

**HAZARDOUS DECOMPOSITION PRODUCTS** : Products of combustion are hazardous including carbon monoxide and carbon dioxide.

### 6. ACCIDENTAL RELEASE MEASURES

**GENERAL** : Consult an expert on the disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations.  
Notify the appropriate authorities immediately.  
Take all additional action necessary to prevent and remedy the adverse effects of the spill.

**LAND SPILL** : Eliminate source of ignition. Keep public away. Prevent additional discharge of product, if possible to do so without hazard. Prevent spills from entering sewers, water courses or low areas.

**WATER SPILL** : Remove from surface by skimming or with suitable absorbents.

### 7. HANDLING AND STORAGE

**STORAGE TEMPERATURE** (min./max.): 32°F(0°C) / 59°F(15°C)

**AVERAGE SHELF LIFE** : 6 Months at 59°F(15°C)

**SPECIAL SENSITIVITY** : Heat. Air (Oxygen)

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING** : Use only in the well-ventilated areas.  
Avoid contact with skin or eyes.  
Practice good personal hygiene after using this product, especially before eating, drinking, smoking or using the toilet. Use only non-sparking tools and limit storage time.  
Store in cool, dry area away from high heat sources.  
Prevent containers away from heat, sparks, open flame.  
Prevent product from contamination by foreign materials, especially acid or base.  
Risk of rapid polymerization/possibly rupturing container by fire, high heat sources, raising temperature.

### 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 goggles for eye protection. Impervious gloves for skin protection. Use NIOSH approved respirators when necessary.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	: Paste	MOLECULAR WEIGHT	: Not applicable
COLOR	: White	VAPOR PRESSURE	: No Data Available
ODOR	: Mild	SPECIFIC GRAVITY	: 1.55 - 1.65 at 25°C/77°F
FLASH POINT	: about 170°C / 338°F	VAPOR DENSITY (AIR=1)	: No Data Available
BOILING POINT	: Not applicable	SOLUBILITY IN WATER	: May Partly Soluble

### 10. STABILITY AND REACTIVITY

STABILITY : This product is stable under all normal condition of use.

INCOMPATIBILITY (Material to avoid): Polymerization initiators including peroxide strong oxidizing agents copper alloys, carbon steel, aluminium, iron, rust or strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS : Products of combustion are hazardous including carbon monoxide and carbon dioxide.

### 11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Titanium dioxide	Oral LD <sub>50</sub> (rat)	>7,500mg/kg
Silica	Oral LD <sub>50</sub> (rat or mouse)	>4,500mg/kg
Methanone,(1-hydroxycyclohexyl) Phenyl	Oral LD <sub>50</sub> (rat)	>5,000mg/kg
Benzoic, acie,4-(dimethylamino)- 2-ethylhexylester	Oral LD <sub>50</sub> (rat)	>2,000mg/kg

### 12. ECOLOGICAL INFORMATION

Benzoic, acie,4-(dimethylamino)- 2-ethylhexylester	LC <sub>50</sub> FISH	24mg/l
	EC <sub>50</sub> Daphia	105mg/l
	EC <sub>50</sub> Bacteria	>100mg/l

Ready Biodegradability: Ready degradable. Not available

### 13. DISPOSAL CONDITION

WASTE DISPOSAL METHOD : Waste must be disposed off in accordance with federal, state and local environmental control regulations. Incineration is the preferred. Empty containers must be handled with care due to product residue.

### 14. TRANSPORTATION INFORMATION

D.O.T. SHIPPING NAME	: Not regulated	TECHNICAL SHIPPING NAME	: Printing Ink
D.O.T. HAZARD CLASSIFICATION	: Not regulated	UN/NA NO	: Not applicable
REPORTABLE QUANTITY	: None	D.O.T LABELS REQUIRED	: None
D.O.T. PLACARDS	: None	FRT CLASS BULK	: Not applicable
FRT CLASS PKG	: None		

### 15. REGULATORY INFORMATION

TSCA (Toxic Substance Control Act)

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

### 16. OTHER INFORMATION

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.