

## MATERIAL SAFETY DATA SHEET

Date: April 23, 2009

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Toner Kit for UTAX LP 3228 / 3230  
 Supplier:  
 Name: UTAX GmbH  
 Address: Ohechaussee 235, 22848 Norderstedt, Germany  
 Telephone number: +49 (0) 40 / 528490

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name (Common name)	%
Styrene acrylate copolymer 1	50 – 60
Styrene acrylate copolymer 2	1 – 5
Magnetite	40 – 50
Wax	1 - 5

### 3. HAZARDS IDENTIFICATION

Most important hazards: Not classified as dangerous (1999/45/EC)  
 Specific hazards: None  
 Other information on hazards: Potential health effects  
 Ingestion: Ingestion is not applicable route of entry for intended use.  
 Inhalation: Prolonged inhalation of excessive dusts may cause lung damage. Use of this product, as intended, does not result in inhalation of excessive dusts.  
 Eye contact: May cause eye irritation.  
 Skin contact: Unlikely to cause skin irritation.

### 4. FIRST-AID MEASURES

Inhalation: Remove from exposure to fresh air and gargle with plenty of water. Consult a doctor in case of such a symptoms as coughing.  
 Skin contact: Wash with soap and water.  
 Eye contact: Flush with water immediately and see a doctor if irritating.  
 Ingestion: Rinse out the mouth. Drink one or two glasses of water to dilute. Seek medical treatment if necessary.

### 5. FIRE-FIGHTING MEASURES

Extinguishing media: Water (Sprinkle with water), foam, powder, CO<sub>2</sub> or dry chemical extinguisher  
 Fire-fighting procedure: Pay attention not to blow away toner powder. Drain water off around and decrease the atmosphere temperature to extinguish the fire.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid inhalation, ingestion, eye and skin contact in case of accidental toner release.  
 Environmental precautions: No special precaution.  
 Method for cleaning up: Gather the released toner not to blow away and to wipe up with a wet cloth.

## 7. HANDLING AND STORAGE

Handling: Never open the toner container.  
 Storage: Keep toner container tightly closed and store in a cool, dry and dark place keeping away from fire.  
 Keep away from children.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ACGIH-TLV (2000): Total dust 10 mg/m<sup>3</sup>, Respirable dust 3 mg/m<sup>3</sup>  
 OSHA-PEL (2006): Total dust 15 mg/m<sup>3</sup>, Respirable dust 5 mg/m<sup>3</sup>  
 Protective equipment: Respiratory protection, eye protection, hand protection, skin and body protection are not required under normal use.  
 Ventilation: Ventilator is not required under normal use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid  
 Form: Fine powder  
 Colour: Black  
 Odor: Odorless  
 pH: N.A.  
 Melting point: 140 °C  
 Explosion properties: Dust explosion is improbable under normal use.  
 Experimental explosiveness of toner is classified into the same rank such kind of powder as flour, dry milk and resin powder according to the pressure rising speed.  
 Density: 1.5-2.0 g/cm<sup>3</sup>  
 Solubility: Almost insoluble in water

## 10. STABILITY AND REACTIVITY

Stability / Reactivity: Stable under normal use.  
 Hazardous reactions: None

## 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity: (rat) LD<sub>50</sub>>2,500 mg/kg\*  
 Acute dermal toxicity: (rat) LD<sub>50</sub>>2,000 mg/kg\*  
 Acute inhalation toxicity: (rat) LC<sub>50</sub>(4hr)>5.13 mg/l\*  
 Acute eye irritation: (rabbit) Mild irritant\*  
 Acute skin irritation: (rabbit) Non-irritant\*  
 Skin sensitisation: (mouse) Non-sensitiser\*  
 Mutagenicity: AMES Test is negative  
 Reproductive toxicity: No reproductive toxicant, according to MAK, California Proposition 65, TRGS 905 and EU Directive 67/548/EEC.  
 Carcinogenicity: No carcinogen or potential carcinogen, according to IARC, Japan Association on Industrial Health, ACGIH, EPA, OSHA, NTP, ILO, MAK, California Proposition 65, TRGS 905 and EU Directive 67/548/EEC.

\* Estimated from other products containing same materials.

### Chronic effects:

In a study in rats by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of rats in the high concentration (16 mg/m<sup>3</sup>) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animal in the middle (4 mg/m<sup>3</sup>) exposure group. But no pulmonary change was reported in the lowest (1 mg/m<sup>3</sup>) exposure group, the most relevant potential human exposures.

Other information: None

## 12. ECOLOGICAL INFORMATION

No data available.

## 13. DISPOSAL CONSIDERATIONS

Do not incinerate toner and toner containers. Dangerous sparks may cause burn. Any disposal practice should be done under conditions which meet local, state and federal laws and regulations relating to waste (contact local or state environmental agency for specific rules).

## 14. TRANSPORT INFORMATION

UN No.:	None
UN shipping name:	None
UN classification:	None
UN packing group:	None
Special precautions:	None

## 15. REGULATORY INFORMATION

### EU Information

Label information according to the Directives 67/548/EEC and 1999/45/EC.

Symbol and indication:	Not required
R-Phrase:	Not required
S-Phrase:	Not required
Special markings:	Not required
Hazardous ingredients for labelling:	None

### US Information

All components in this product comply with order under TSCA.

## 16. OTHER INFORMATION

To the best of our knowledge, the information contained herein is accurate. However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein.

### Abbreviation:

ACGIH:	American Conference of Governmental Industrial Hygienists
EPA:	Environmental Protection Agency (USA)
IARC:	International Agency for Research on Cancer
ILO:	International Labour Office
JAIH:	Japan Association on Industrial Health
MAK:	Maximale Arbeitsplatzkonzentration der Deutschen Forschungsgesellschaft
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration
PEL:	Permissible Exposure Limit
TLV:	Threshold Limit Value
TRGS:	Technische Regeln für Gefahrenstoffe (Deutsche)
TSCA:	Toxic Substances Control Act (USA)
TWA:	Time Weighted Average
UN:	United Nations

### Reference:

- ISO 11014-1 Safety data sheet for chemical products
- Commission Directive 91/155/EEC and 2001/58/EC
- Pulmonary response to toner upon chronic inhalation exposure in rats  
H. Muhle et.al  
Fundamental and applied toxicology 17.280-299 (1991)



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- Lung clearance and retention of toner, utilizing a tracer technique, during chronic inhalation exposure in rats  
B. Bellmann  
Fundamental and applied toxicology 17.300-313 (1991)