



TOSHIBA AMERICAN BUSINESS SOLUTIONS, INC.
2 Musick, Irvine, CA 92618-1631

Revised Date: 11/08/01

Emergency Phone Number 800-424-9300

Toshiba has determined that Material Safety Data Sheets are not required for print cartridges. For customer convenience, Toshiba provides product information in this familiar format

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Name: e-STUDIO280CP Yellow Toner Cartridge
P/N: X221250
Family: Contains toner
Product Use: e-STUDIO280CP Printers

SECTION 2 - GENERAL COMPOSITION OF TONER CONTAINED IN CARTRIDGE

COMPONENT	PERCENT (WT.)	CAS#	OSHA PEL	ACGIH TLV
Resin 1	80-90	(1)(2)	(3)	(3)
Organic Pigment	2-3	76199-85-4	(3)	(3)
Wax	5-7	8015-86-9	(3)	(3)
Charge Control Agent	1-2	114803-11-1	(3)	(3)
Alumina	0.5-1.5	1344-28-1	(3)	(3)
Amorphous Silica (Modified)	1-2	68909-20-6 7631-86-9	(3)	(3)

Notes: (1) Trade secret or patented molecule.
(2) New Jersey Trade Secret Registration Number 80100252-5001P.
(3) Specific workplace limits have not been established.

SECTION 3 - HAZARDS IDENTIFICATION

Primary Routes of Entry: Toner is contained in a cartridge. Exposure potential includes incidental inhalation of toner dust and possible minimal skin contact during cartridge change. There is no evidence that toner is absorbed through the skin.

Signs and Symptoms of Exposure: Toner on skin or mucous membranes (mouth, eyes & nose).

Medical Conditions Aggravated by Exposure: None known at intended level of use. Exposure to high airborne dust concentrations, including toner, may aggravate existing respiratory conditions.

Physical Hazards: As with most finely divided dusts, explosion is possible when extremely high concentrations of dust and an ignition source are present. Not a hazard under normal conditions of use.

POTENTIAL HEALTH EFFECTS:

Inhalation:	<u>Short Term Exposure</u>	--	Testing and/or information on this or similar toners, or on the constituents of this toner indicate low inhalation toxicity. As with exposure to high concentrations of any dust, minimal respiratory tract irritation may occur if excessive amounts of toner dust are inhaled. Exposure not probable with intended use.
	<u>Long Term Exposure</u>	--	No adverse chronic effects known at expected level of use. Exposure not probable with intended use.
Skin Contact:	<u>Short Term Exposure</u>	--	Testing and/or information on this or similar toners, or on the constituents of this toner indicate this toner is not a skin irritant and is of low dermal toxicity. This toner is not expected to be a dermal sensitizer. Exposure not probable with intended use.
	<u>Long Term Exposure</u>	--	Rare individuals may note skin rash with repeated contact. Exposure not probable with intended use.
Eye Contact:	<u>Short Term Exposure</u>	--	Toner may act as a mechanical irritant. Exposure not probable with intended use.
	<u>Long Term Exposure</u>	--	No adverse chronic effects known. Exposure not probable with intended use.
Ingestion:	<u>Short Term Exposure</u>	--	Testing and/or information on this or similar toners, or on the constituents of this toner indicate low oral toxicity. Exposure not probable with intended use.
	<u>Long Term Exposure</u>	--	No adverse chronic effects known. Exposure not probable with intended use.

SECTION 4 - FIRST AID MEASURES

Inhalation: If symptoms, such as shortness of breath or persistent coughing are experienced, remove source of contamination and move individual to fresh air. If symptoms persist, seek medical attention.

Skin Contact: Wash affected area with soap and water. Should irritation occur, seek medical attention.

Eye Contact: Do not rub eyes. Flush immediately with plenty of water. Remove contact lenses and continue flushing for at least 15 minutes. Seek medical attention if irritation develops and persists.

Ingestion: If conscious, immediately wash mouth out with plenty of water. Seek medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: Not applicable

Autoignition: Not available

Flammability Limits (%): Not available

Extinguishing Media: CO₂, water spray or fog, dry chemical, or foam.

Firefighting: NIOSH approved self-contained breathing apparatus may be required if a large number of cartridges are involved.

Fire and Explosion Hazard: Like many finely divided materials, toner dust, in high concentrations can form an explosive mixture in air which, if ignited, could result in a dust explosion.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide, and low molecular weight organics.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Occupational Spill: If a dust cloud is possible due to spills involving a large number of cartridges, remove all sources of ignition such as open sparks, flames or static discharge to prevent the ignition of the dust. Minimize dust generation during clean up. Sweep up spill with non-metallic broom and dustpan. To avoid possible dust explosion, do not use vacuum cleaners to cleanup spills. Contain for disposal. Oil permeated sweeping compound may assist in the cleanup of large amounts of toner spilled on nonporous surfaces.

SECTION 7 - HANDLING AND STORAGE

Store away from oxidizing materials.

When handling, minimize generation of dust. Supply adequate ventilation.

STORE IN A COOL, DRY PLACE.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Mechanical room ventilation is recommended.

Eye Protection: None required for intended use in printer.

Protective Clothing: None required for intended use in printer.

Gloves: None required for intended use in printer.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Description: Cartridge contains toner; finely divided yellow solid with plastic-like odor.

Softening Point: Not Determined

Freezing Point: Not applicable

Pressurized: No

Boiling Point: Not applicable

pH: Not applicable

Specific Gravity (H₂O = 1): Not applicable

Evaporation Rate: Not applicable, solid

Water Solubility: Insoluble

% Volatility: Not applicable, solid

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable

Conditions to Avoid: Combustible atmospheres of toner dust. Ignition sources, excessive heat, sparks and open flame.

Incompatibilities: Strong oxidizers

Hazardous Decomposition: Carbon dioxide, carbon monoxide, phenol derivatives and unidentified organics.

Hazardous Polymerization: This product will not polymerize.

SECTION 11 - TOXICOLOGY INFORMATION

Acute Toxicity: Not expected to be acutely toxic.

Chronic Toxicity: Not expected to be chronically toxic. Industry tests on similar generic toner showed no signs of overt toxicity. Rats exposed to high levels of toner showed a chronic inflammatory response and a mild to moderate degree of lung fibrosis. There were no pulmonary changes of any type at the lower toner exposure level, which is most relevant in regard to potential human exposures. Toner is not listed by **IARC**, **NTP**, or **OSHA**.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Impact Rating (0-4): Not available

Acute Aquatic Toxicity: Not available

Degradability: Not available

Log Bioconcentration Factor (BCF): Not available

Log Octanol/Water Partition Coefficient: Not available

SECTION 13 - DISPOSAL INFORMATION

If discarded, this product is not a hazardous waste either by listing or by characteristic. However, it is the responsibility of the product user to determine at the time of disposal whether a material has been contaminated and should be classified as a hazardous waste. Disposal is subject to state, national and provincial regulations.

SECTION 14 - TRANSPORTATION INFORMATION

This product is not regulated as a hazardous material by the **DOT**.

SECTION 15 - REGULATORY INFORMATION

All ingredients are listed on the **Toxic Substances Control Act (TSCA)** inventory, have been registered, or are exempt.

All ingredients are listed on **the European Inventory of Existing Commercial Substances (EINECS)** list, have been registered on the **European List of New Chemical Substances (ELINCS)**, or are exempt.

TOSHIBA

Name: e-STUDIO280CP Yellow Toner Cartridge
P/N: X221250

All ingredients are listed on the Canadian **Domestic Substances List (DSL)**, have been registered on the **Non-Domestic Substances List (NDSL)**, or are exempt.

All ingredients are listed on the Japanese **Existing and New Chemical Substances (ENCS)** list, have been registered, or are exempt.

All ingredients are listed in **Australian Inventory of Commercial Substances (AICS)**, have been registered, or are exempt.

None of the product ingredients are listed as **Emergency Planning and Community Right-to-Know Act (EPCRA) - Section 302: Extremely Hazardous Substances (EHS)**.

None of the product components are present above the minimum quantities of listed chemicals in **EPCRA Section 313 Supplier Notification**.

This product contains no known materials at a level that the State of California has found to cause cancer, birth defects or other reproductive harm -**California Proposition 65**.

SECTION 16 - OTHER

Disclaimer: Data is most current known to Toshiba at the time of preparation and is believed to be accurate. No warranty as to its accuracy or completeness is expressed or implied.