

Material Safety Data Sheet

Issue Date: 3/17/2006

MSDS Number: TN321

Product Name: MN.C45C09 Toner

Revision: [00]03/17/2006

Section 1 - Chemical Product and Company Identification

Product Name: MN.C45C09 Toner

Chemical Formula NA

CAS Number: NA (mixture)

General Use: Toner

Future Graphics LLC Part Numbers: HP2500CHMC10KG

Company Name: Mitsubishi Kagaku Imaging Corporation Distributor: Future Graphics LLC.

Street Address: 401 Volvo Parkway

Street Address: 1175 Aviation Place

Town: Chesapeake

Town: San Fernando

State: Virginia

State: California

Zip Code: 23320

Zip Code: 91340

Emergency Contacts: Chemtrec 1-800-424-9300

Other Contacts: Future Graphics LLC. 800 / 394-9900

Health	1
Fire	1
Reactivity	0
PPE	(See Sec. 8)

<<<>>> EMERGENCY OVERVIEW <<<>>>

This product may cause irritation of the respiratory system, eyes, and skin. This product is stable under normal conditions of use.

Section 2 - Composition and Information on Ingredients

Ingredient	Pigment	CAS No. Proprietary			% in Mixture	1-20
		OSHA	ACGIH	NIOSH	UNIT OF MEASURE	
TWA	NE	NE	NE	NE	mg/cu.meter	
STEL	NE	NE	NE	NE	mg/cu.meter	
IDLH	NA	NA	NE	NE	mg/cu.meter	

Ingredient	Silica, amorphous	CAS No. Proprietary			% in Mixture	<5
		OSHA	ACGIH	NIOSH	UNIT OF MEASURE	
TWA	80 / % SiO2	10	6	6	mg/cu.meter	
STEL	NE	NE	NE	NE	mg/cu.meter	
IDLH	NA	NA	NE	NE	mg/cu.meter	

Ingredient	Styrene Acrylate Copolymer	CAS No. Proprietary			% in Mixture	70-95
		OSHA	ACGIH	NIOSH	UNIT OF MEASURE	
TWA	NE	NE	NE	NE	mg/cu.meter	
STEL	NE	NE	NE	NE	mg/cu.meter	
IDLH	NA	NA	NE	NE	mg/cu.meter	

* TOTAL DUST / INHALABLE DUST

** RESPIRABLE DUST

*** Refer to Section 11 - Toxicological Information

OVERALL MIXTURE:

This product is a mixture of dry chemical components. OSHA regulatory limits set for PARTICULATES NOT

OTHERWISE CLASSIFIED are: 15 mg/cu.meter for TOTAL DUST / INHALABLE DUST and 5 mg/cu.meter for RESPIRABLE DUST.

Section 3 - Hazards Identification

Primary Entry Routes:

Absorption, Ingestion, Inhalation

Target Organs:

NA

Inhalation Effects:

Slight irritation of respiratory tract.

Eye Effects:

Dust may cause irritation by mechanical abrasion.

Skin Effects:

May cause skin irritation.

Ingestion Effects:

NA

Carcinogenicity:

NA

Medical Conditions Aggravated by Long-term Exposure:

Accumulation of dust in the respiratory system may cause moderate congestion.

Chronic Effects and/or Recommendations:

If use generates airborne particles, treat as a NUISANCE PARTICULATE (ACGIH TLV = 10 mg/cu. meter).

Section 4 - First Aid Measures

Inhalation:

Protect yourself with appropriate PPE, remove the person to fresh air. Decontaminate and begin rescue breathing if breathing has stopped and CPR if heart action has stopped. Seek prompt medical attention.

Eye:

DO NOT allow victim to rub or keep eyes tightly shut. Gently lift eyelids and immediately flush eyes with large amounts of water. Remove any contact lenses. Continue to flush for at least 30 minutes, occasionally lifting the upper and lower lids. Seek prompt medical attention.

Skin:

Quickly remove contaminated clothing. Immediately wash area with large amounts of water. Seek prompt medical attention for any reddened skin other than from washing.

Ingestion:

Never give anything by mouth to an unconscious or convulsing person. Contact a Poison Control Center (PCC). Unless the PCC advises otherwise, have the conscious and alert person drink 1 to 2 glasses of water to dilute. Induce vomiting only after recent ingestions due to the possibility of seizures. Seek prompt medical attention.

Additional First Aid Information:

NA

Section 5 - Fire Fighting Measures

Flash Point:		Flash Point Method:	
NA		NA	
Flammability Classification:		Auto Ignition Temperature:	
1 Slight (HMIS, NFPA)		ND	
LEL:	UEL:	Burning Rate:	
NA	NA	NA	

Extinguishing Media:

Water spray, dry chemical, foam, carbon dioxide, or halon-type extinguishers.

Unusual Fire / Explosion Hazards:

May form flammable dust-air mixture.

Hazardous Combustion Products:

Carbon monoxide, carbon dioxide, nitrogen oxide, and smoke. Under certain conditions some aliphatic aldehydes and carboxylic acids may form.

Fire-Fighting Instructions:

Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment:

Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Containment Method:

When cleaning up spilled material, keep unnecessary people away, isolate area, and deny entry until the spilled material has been removed. Scoop up material and place in a chemical waste container. Suction up remaining material using a high efficiency vacuum cleaner. Avoid suspending particles in the air. Extreme caution should be used as material presents a slip hazard.

Reporting Requirements:

Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions:

Keep containers closed at all times. Avoid creating dust. Keep away from ignition sources.

Storage Requirements:

Product is prone to gradual oxidation which may reduce quality over time.

Regulatory Requirements:

Follow all applicable local, state, and Federal regulations.

Section 8 - Exposure Controls and Personal Protection

Ventilation

The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release in order to maintain airborne concentrations of the product below OSHA PELs (See Section 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Respiratory Protection

IMPROPER USE OF RESPIRATORS IS DANGEROUS. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134 and 1910.137) and, if necessary, wear a NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given work conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. WARNING! Air purifying respirators do not protect worker in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning and convenient, sanitary storage areas.

Protective Clothing and Equipment

Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear splash-proof chemical goggles and face shield when working with liquid, unless full facepiece respiratory protection is worn. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment

Separate contaminated work clothes from street clothes. Launder before reuse. Remove material from your shoes and clean personal protective equipment. Never take home contaminated clothing.

Comments

Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the restroom, or apply cosmetics.

Additional Information

NA

Section 9 - Physical and Chemical Properties

Boiling Point: NA	Freezing or Melting Point: 100-150 degree centigrade	Odor Threshold: ND	Physical State: Solid
Viscosity: NA	Refractive Index: NA	Vapor Density (Air = 1): Heavier than air.	Appearance and Odor: Cyan fine powder, faint odor.
% Volatiles: NA	Surface Tension: NA	Vapor Pressures: NA	Water Solubility: Negligible
Density: 1.0 - 2.0	Evaporation Rate: NA	Formula Weight: NA	Other Solubilities: Partially soluble in toluene and xylene.
pH: NA	Specific Gravity where Water = 1 at 4 deg C NA		Additional Comments: NA

Section 10 - Stability and Reactivity

Stability: Stable under conditions of normal use.	Polymerization: Hazardous polymerization cannot occur.	Hazardous Decomposition Products: Combustion will produce carbon dioxide and possibly toxic chemicals such as carbon monoxide.
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Chemical Incompatibilities:
NA

Conditions to Avoid:
NA

Other Comments:
NA

Section 11 - Toxicological Information

Checked box indicates that related health effects criteria applies to the overall mixture.

Eye Effects Acute Oral Effects Acute Inhalation Effects Mutagenicity
Skin Effects Chronic Effects Carcinogenicity Teratogenicity

EXPLANATION of HEALTH EFFECTS:

NA

EXPLANATION of TOXICOLOGICAL CRITERIA:

Chemical Component: Pigment

TOXICITY DATA: >15 gm/kg oral-rat LD; >3 gm/kg intraperitoneal-rat LD

HEALTH EFFECTS:

INHALATION: Acute Exposure: May cause irritation of the mucous membranes. Chronic Exposure: No data available.

SKIN CONTACT: Chronic Exposure: Repeated contact may cause an allergic reaction.

EYE CONTACT: Acute Exposure: Contact may cause mechanical irritation.

INGESTION: Acute Exposure: The LD50 reported in rats was >50000 mg/kg. Ingestion may result in gastric disturbances.

Chemical Component: Silica, amorphous

SILICON DIOXIDE:

CARCINOGEN STATUS: IARC: Human Inadequate Evidence, Animal Inadequate Evidence, Group 3, (Amorphous silica)

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: respiratory disorders

HEALTH EFFECTS:

INHALATION:

ACUTE EXPOSURE: SILICON DIOXIDE: Dusts may cause irritation of the respiratory tract and coughing.

CHRONIC EXPOSURE: SILICON DIOXIDE: Exposure to dusts of amorphous silica for 6 months to 0 years may result in silicosis with symptoms of cough, chest pain, dyspnea, tachypnea, marked weakness, and weight loss. This pulmonary insufficiency may be characterized by diffuse nodular fibrosis, distortion of bronchi, bullous emphysema. Although pulmonary fibrosis has been reported from the workers exposed to amorphous silica, the crystalline form is the established cause of fibrotic response in the lung. However, the amorphous form has been reported as fibrogenic to a lesser extent. As the disease progresses, cor pulmonale, cardiorespiratory failure, and death may occur.

SKIN CONTACT:

ACUTE EXPOSURE: SILICON DIOXIDE: Prolonged skin contact with dry particulate may cause drying of the skin.

CHRONIC EXPOSURE: SILICON DIOXIDE: No data available.

EYE CONTACT:

ACUTE EXPOSURE: SILICON DIOXIDE: Dusts may cause irritation with redness and pain.

CHRONIC EXPOSURE: SILICON DIOXIDE: No data available.

INGESTION:

ACUTE EXPOSURE: SILICON DIOXIDE: The effects of ingestion are purely mechanical as the substance is inert chemically and biologically.

CHRONIC EXPOSURE: SILICON DIOXIDE: No data available.

Chemical Component: Styrene Acrylate Copolymer

Data Not Available

Section 12 - Ecological Information

Checked box indicates that information regarding the criteria applies to the overall mixture.

Ecotoxicity Environmental Fate Environmental Degradation Soil Absorption and Mobility

EXPLANATION of APPLICABLE ECOLOGICAL CRITERIA:

NA

Section 13 - Disposal Considerations

Disposal:

Waste material may be disposed of, incinerated, or recycled for its iron oxide under conditions that meet all Federal, State and Local regulations. Contact your supplier or a licensed contractor for detailed recommendations.

Disposal Regulatory Requirements:

NA

Container Cleaning and Disposal:

NA

Section 14 - Transport Information

DOT Transportation Data (49CFR 172.101)		
Shipping Name: NA	Label: NA	Passenger Air and Railcar: NA
Shipping Symbols: NA	Special Provisions: NA	Cargo Aircraft: NA
Hazard Class: NA	Exceptions: NA	Oceangoing Vessel Stowage: NA
ID Number: NA	Non-bulk Packaging: NA	Other: NA
Packing Group: NA	Bulk Packaging: NA	

EXPLANATION of APPLICATION TRANSPORTATION CRITERIA:
NA

Section 15 - Regulatory Information

Checked box(es) indicate that the chemical is subject to the associated regulatory requirements and/or appears on the associated chemical inventory list

Chemical Component:	Pigment	CAS #	Proprietary	
40 CFR 261.33	<input type="checkbox"/>	CAA 40 CFR 112	<input type="checkbox"/>	TSCA inventory (US) <input checked="" type="checkbox"/>
40 CFR 261 classified	<input type="checkbox"/>			AICS inventory (Australia) <input checked="" type="checkbox"/>
RCRA Section 3001	<input type="checkbox"/>	SARA 40 CFR 311 and 312	<input type="checkbox"/>	EINECS inventory (Europe) <input checked="" type="checkbox"/>
		SARA 40 CFR 372.65	<input type="checkbox"/>	DSL inventory (Canada) <input checked="" type="checkbox"/>
CERCLA RQ established	<input type="checkbox"/>	SARA 40 CFR 355	<input type="checkbox"/>	ECL inventory (Korea) <input checked="" type="checkbox"/>
40 CFR 302.4	<input type="checkbox"/>	OSHA 1910 1000 Z-1 tables	<input type="checkbox"/>	ENCS inventory (Japan) <input checked="" type="checkbox"/>
CWA 40 CFR 311(b)(4)	<input type="checkbox"/>	OSHA 1910 subpart Z	<input type="checkbox"/>	PICCS inventory (Phillipines) <input checked="" type="checkbox"/>
CWA 40 CFR 307(a)	<input type="checkbox"/>			CHINA inventory <input checked="" type="checkbox"/>
Chemical Component:	Silica, amorphous	CAS #	Proprietary	
40 CFR 261.33	<input type="checkbox"/>	CAA 40 CFR 112	<input type="checkbox"/>	TSCA inventory (US) <input checked="" type="checkbox"/>
40 CFR 261 classified	<input type="checkbox"/>			AICS inventory (Australia) <input checked="" type="checkbox"/>
RCRA Section 3001	<input type="checkbox"/>	SARA 40 CFR 311 and 312	<input type="checkbox"/>	EINECS inventory (Europe) <input checked="" type="checkbox"/>
		SARA 40 CFR 372.65	<input type="checkbox"/>	DSL inventory (Canada) <input checked="" type="checkbox"/>
CERCLA RQ established	<input type="checkbox"/>	SARA 40 CFR 355	<input type="checkbox"/>	ECL inventory (Korea) <input checked="" type="checkbox"/>
40 CFR 302.4	<input type="checkbox"/>	OSHA 1910 1000 Z-1 tables	<input type="checkbox"/>	ENCS inventory (Japan) <input checked="" type="checkbox"/>
CWA 40 CFR 311(b)(4)	<input type="checkbox"/>	OSHA 1910 subpart Z	<input type="checkbox"/>	PICCS inventory (Phillipines) <input checked="" type="checkbox"/>
CWA 40 CFR 307(a)	<input type="checkbox"/>			CHINA inventory <input checked="" type="checkbox"/>

Chemical Component:	Styrene Acrylate Copolymer	CAS #	Proprietary
40 CFR 261.33	<input type="checkbox"/> CAA 40 CFR 112	<input type="checkbox"/>	TSCA inventory (US) <input checked="" type="checkbox"/>
40 CFR 261 classified	<input type="checkbox"/> SARA 40 CFR 311 and 312	<input type="checkbox"/>	AICS inventory (Australia) <input checked="" type="checkbox"/>
RCRA Section 3001	<input type="checkbox"/> SARA 40 CFR 372.65	<input type="checkbox"/>	EINECS inventory (Europe) <input checked="" type="checkbox"/>
CERCLA RQ established	<input type="checkbox"/> SARA 40 CFR 355	<input type="checkbox"/>	DSL inventory (Canada) <input checked="" type="checkbox"/>
40 CFR 302.4	<input type="checkbox"/> OSHA 1910 1000 Z-1 tables	<input type="checkbox"/>	ECL inventory (Korea) <input checked="" type="checkbox"/>
CWA 40 CFR 311(b)(4)	<input type="checkbox"/> OSHA 1910 subpart Z	<input type="checkbox"/>	ENCS inventory (Japan) <input checked="" type="checkbox"/>
CWA 40 CFR 307(a)	<input type="checkbox"/>	<input type="checkbox"/>	PICCS inventory (Phillipines) <input checked="" type="checkbox"/>
			CHINA inventory <input checked="" type="checkbox"/>

Section 16 - Other Information

Abbreviations: ACGIH - American Conference of Governmental Industrial Hygienists

IDLH - Immediately Dangerous to Life and Health

NA - Not Applicable to the criteria OR Not Available

ND- Not Determined OR Not Known

NE - None established

OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit

RCRA - Resource Conservation Recovery Act

STEL - Short Term Exposure Limit

TLV - Threshold Limit Value

TSCA - Toxic Substances Control Act

TWA - Time Weighted Average

Disclaimer: Judgements as to the suitability of information herein are the purchaser's responsibility. Although reasonable care has been taken in the preparation of such information, Mitsubishi Chemical America, Inc. extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to the purchaser's intended purpose or for the consequences of its use.

Additional Comments: NA

Revision Notes: ACB

<<<<< **END OF MSDS**>>>>>