[MATERIAL SAFETY DATA SHEET (MSDS)] SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION AUTHORIZED BY MDL FOR INTERNAL USE ONLY. FOR EXTERNAL USE, SEE SECTION 16. FIRST COLOR CO., LTD. EMERGENCY TELEPHONE NUMBER: TEL: 82-31-432-6977 1236-1, JEUNGWANG-DONG, SHIHUNG KYOUNGGI-DO, KOREA FAX: 82-31-432-6329 SUBSTANCE: COPPER POLYCHLOROPHTHALOCYANINE GREEN TRADE NAMES/SYNONYMS: FIRST GREEN GB GREEN 7; C.I. PIGMENT 74260; C.I. 74260 COPPER PHTHALOCYANINE GREEN; PIGMENT GREEN 7; OHS18865; RTECS GE4300000 CHEMICAL FAMILY: aromatic, carboxylic acids, cyanates CREATION DATE: May 16 1989 REVISION DATE: Jun 17 2007 COMPOSITION, INFORMATION ON INGREDIENTS COMPONENT: COPPER POLYCHLOROPHTHALOCYANINE GREEN

CAS NUMBER: 1328-53-6

EC NUMBER (EINECS): 215-524-7

PERCENTAGE: 100.0

.-----

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=1 REACTIVITY=0

EC CLASSIFICATION (CALCULATED): Not determined.

EMERGENCY OVERVIEW:

COLOR: green

PHYSICAL FORM: powder

ODOR: odorless

MAJOR HEALTH HAZARDS: No significant target effects reported.

PHYSICAL HAZARDS: Dust/air mixtures may ignite or explode.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information is available

SKIN CONTACT:

SHORT TERM EXPOSURE: mild irritation

LONG TERM EXPOSURE: no information is available

EYE CONTACT:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information is available

INGESTION:

SHORT TERM EXPOSURE: no information on significant adverse effects

LONG TERM EXPOSURE: no information is available

CARCINOGEN STATUS:

OSHA: N NTP: N IARC: N

SECTION 4 FIRST AID MEASURES

INHALATION: Remove from exposure immediately. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed. Get medical attention.

SKIN CONTACT: Remove contaminated clothing, jewelry, and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Get medical attention, if needed.

EYE CONTACT: Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.

INGESTION: If vomiting occurs, keep head lower than hips to help prevent aspiration. Get medical attention, if needed.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Slight fire hazard. Dust/air mixtures may ignite or explode.

EXTINGUISHING MEDIA: regular dry chemical, carbon dioxide, water, regular foam

Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING: Move container from fire area if it can be done without risk.

Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:

Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers. Keep unnecessary people away, isolate hazard area and deny entry.

SECTION 7 HANDLING AND STORAGE Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances. SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

COPPER POLYCHLOROPHTHALOCYANINE GREEN:

No occupational exposure limits established.

VENTILATION: Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.

Any dust and mist respirator with a full facepiece.

Any air-purifying respirator with a full facepiece and a high-efficiency particulate filter.

Any powered, air-purifying respirator with a full facepiece and a high-efficiency particulate filter.

For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

.....

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: solid

COLOR: green

PHYSICAL FORM: powder

ODOR: odorless

MOLECULAR WEIGHT: 1082-1127

MOLECULAR FORMULA: C32-O(0-1)-N8-CL(15-16)-CU

BOILING POINT: Not applicable MELTING POINT: Not available VAPOR PRESSURE: Not applicable VAPOR DENSITY: Not applicable SPECIFIC GRAVITY (water=1): 2.13 WATER SOLUBILITY: insoluble

PH: Not applicable

VOLATILITY: Not applicable

ODOR THRESHOLD: Not available EVAPORATION RATE: Not applicable

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid heat, flames, sparks and other sources of ignition.

Avoid contact with incompatible materials.

INCOMPATIBILITIES: oxidizing materials

COPPER POLYCHLOROPHTHALOCYANINE GREEN:

OXIDIZERS (STRONG): Fire and explosion hazard.

HAZARDOUS DECOMPOSITION:

Thermal decomposition products: cyanides, oxides of carbon, nitrogen

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

COPPER POLYCHLOROPHTHALOCYANINE GREEN:

MUTAGENIC DATA:

mutation in microorganisms - Salmonella typhimurium 3333 ug/plate (-S9)

HEALTH EFFECTS:

INHALATION:

ACUTE EXPOSURE:

COPPER POLYCHLOROPHTHALOCYANINE GREEN: Dusts may be irritating to the mucous membranes.

CHRONIC EXPOSURE:

COPPER POLYCHLOROPHTHALOCYANINE GREEN: No data available.

SKIN CONTACT:

ACUTE EXPOSURE:

COPPER POLYCHLOROPHTHALOCYANINE GREEN: May be slightly irritating.

CHRONIC EXPOSURE:

COPPER POLYCHLOROPHTHALOCYANINE GREEN: No data available.

EYE CONTACT:

ACUTE EXPOSURE:

COPPER POLYCHLOROPHTHALOCYANINE GREEN: May be irritating.

CHRONIC EXPOSURE:

COPPER POLYCHLOROPHTHALOCYANINE GREEN: No data available.

INGESTION:

ACUTE EXPOSURE:

COPPER POLYCHLOROPHTHALOCYANINE GREEN: May result in gastric disturbances.

CHRONIC EXPOSURE:

COPPER POLYCHLOROPHTHALOCYANINE GREEN: No data available.

SECTION 12	ECOLOGICAL INFORMATION
Not available	
	DISPOSAL CONSIDERATIONS
Dispose in accor	rdance with all applicable regulations.
	TRANSPORT INFORMATION
No classification	n assigned.
LAND TRANS	PORT ADR/RID: No classification assigned.
AIR TRANSPO	PRT IATA/ICAO: No classification assigned.
MARITIME TR	ANSPORT IMDG: No classification assigned.
SECTION 15	REGULATORY INFORMATION
U.S. REGULAT	TIONS: NTORY STATUS: Y
TSCA 12(b) I	EXPORT NOTIFICATION: Not listed.
	CTION 103 (40CFR302.4): N
	ION 302 (40CFR355.30): N
	ION 304 (40CFR355.40): N
	ION 313 (40CFR372.65): N ARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):
ACUTE: N	
1100111.1	•

CHRONIC: N
FIRE: N
REACTIVE: N
SUDDEN RELEASE: N
OSHA PROCESS SAFETY (29CFR1910.119): N
STATE REGULATIONS:
California Proposition 65: N
EUROPEAN REGULATIONS:
EC NUMBER (EINECS): 215-524-7

GERMAN REGULATIONS:
WATER HAZARD CLASS (WGK): 1 (Self Classification by Manufacturers and Distributors)

SECTION 16 OTHER INFORMATION