[MATERIAL SAFETY DATA SHEET(MSDS)]

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER' S NAME: FIRST COLOR CO., LTD. TEL:82-31-432-6977

1236-1, JUNGWANG-DONG, SHIHUNG, FAX :82-31-432-6329

KYOUNGGI-DO, KOREA

SUBSTANCE: C.I. PIGMENT YELLOW 14

TRADE NAMES/SYNONYMS: FIRST YELLOW 141

CHEMICAL FAMILY: azo

CREATION DATE: Feb 10 1989 REVISION DATE: Dec 09 2002

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: C.I. PIGMENT YELLOW 14

CAS NUMBER: 5468-75-7

EC NUMBER (EINECS): 226-789-3

PERCENTAGE: 100.0

SECTION 3 HAZARDS IDENTIFICATION

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

EC CLASSIFICATION (CALCULATED): No classification assigned.

EMERGENCY OVERVIEW:

COLOR: yellow

PHYSICAL FORM: powder

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: no information on significant adverse effects

LONG TERM EXPOSURE: no information on significant adverse effects

EYE CONTACT:

SHORT TERM EXPOSURE: no information on significant adverse effects

LONG TERM EXPOSURE: no information is available

INGESTION:

SHORT TERM EXPOSURE: vomiting, diarrhea, stomach pain

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. Store in a cool, dry place. Store in a tightly closed container. Keep separated from incompatible substances.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

C.I. PIGMENT YELLOW 14:

No occupational exposure limits established.

VENTILATION: Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. 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, mist, and fume respirator.

Any air-purifying respirator with a high-efficiency particulate filter. Any powered, air-purifying respirator with a dust, mist, and fume filter. Any powered, air-purifying respirator with 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: yellow

PHYSICAL FORM: powder ODOR: Not available

MOLECULAR FORMULA: C34-H30-CL2-N6-O4

BOILING POINT: Not applicable
MELTING POINT: Not available
VAPOR PRESSURE: Not applicable
VAPOR DENSITY: Not applicable
SPECIFIC GRAVITY (water=1): 1.38
WATER SOLUBILITY: Not available

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

HAZARDOUS DECOMPOSITION:

Thermal decomposition products: oxides of nitrogen, carbon, halogenated compounds

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

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): 226-789-3

SECTION 16 OTHER INFORMATION

A backslash is the left and margin indicates an amendment from the previous version.

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties.

Recipients of our product must take responsibility for observing existing laws and Regulations.