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**[MATERIAL SAFETY DATA SHEET (MSDS)]**

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SECTION 1      CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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AUTHORIZED BY MDL FOR INTERNAL USE ONLY. FOR EXTERNAL USE, SEE SECTION 16.

FIRST COLOR CO., LTD.  
1236-1, JUNGWANG-DONG, SHIHUNG,  
KYOUNGGI-DO, KOREA

EMERGENCY TELEPHONE NUMBER:  
TEL : 82-31-432-6977  
FAX : 82-31-432-6329

SUBSTANCE: C.I. PIGMENT RED 48:2

TRADE NAMES/SYNONYMS: FIRST RED 4820

CHEMICAL FAMILY: azo

CREATION DATE: Sep 17 1992

REVISION DATE: Mar 10 2007

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SECTION 2      COMPOSITION, INFORMATION ON INGREDIENTS

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COMPONENT: C.I. PIGMENT RED 48:2

CAS NUMBER: 7023-61-2

EC NUMBER (EINECS): 230-303-5

PERCENTAGE: 100.0

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SECTION 3      HAZARDS IDENTIFICATION

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

EC CLASSIFICATION (CALCULATED): Not classification assigned.

EMERGENCY OVERVIEW:

COLOR: red

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: 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: nausea, vomiting, diarrhea, stomach pain

LONG TERM EXPOSURE: no information is available

CARCINOGEN STATUS:

OSHA: N

NTP: N

IARC: N

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SECTION 4      FIRST AID MEASURES

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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.

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## SECTION 5 FIRE FIGHTING MEASURES

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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.

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## SECTION 6 ACCIDENTAL RELEASE MEASURES

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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.

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## SECTION 7      HANDLING AND STORAGE

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Store and handle in accordance with all current regulations and standards.

Store in a cool, dry place. Store in a well-ventilated.

Keep separated from incompatible substances.

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## SECTION 8      EXPOSURE CONTROLS, PERSONAL PROTECTION

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### EXPOSURE LIMITS:

#### C.I. PIGMENT RED 48:2:

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.

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SECTION 9      PHYSICAL AND CHEMICAL PROPERTIES

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PHYSICAL STATE: solid

COLOR: red

PHYSICAL FORM: powder

ODOR: odorless

MOLECULAR WEIGHT: 460.91

MOLECULAR FORMULA: C18-H13-CL-N2-06S.CA

BOILING POINT: Not applicable

MELTING POINT: Not available

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

SPECIFIC GRAVITY: Not available

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

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SECTION 10      STABILITY AND REACTIVITY

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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 carbon, nitrogen, sulfur

POLYMERIZATION: Will not polymerize.

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SECTION 11      TOXICOLOGICAL INFORMATION

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C.I. PIGMENT RED 48/2::

TOXICITY DATA:

>5 gm/kg oral-rat LD50

ACUTE TOXICITY LEVEL: Insufficient Data.

ADDITIONAL DATE: May cross react with similar compounds.

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SECTION 12 ECOLOGICAL INFORMATION

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Not available

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SECTION 13 DISPOSAL CONSIDERATIONS

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Dispose in accordance with all applicable regulations.

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SECTION 14 TRANSPORT INFORMATION

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No classification assigned.

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SECTION 15 REGULATORY INFORMATION

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U.S. REGULATIONS:

TSCA INVENTORY STATUS: Y

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CERCLA SECTION 103 (40CFR302.4): N

SARA SECTION 302 (40CFR355.30): N

SARA SECTION 304 (40CFR355.40): N

SARA SECTION 313 (40CFR372.65): N

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

ACUTE: N

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): 230-303-5

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SECTION 16      OTHER INFORMATION

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A backslash in the left 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.