

## SECTION I - IDENTIFICATION OF PRODUCT

|                          |  |                             |                                    |
|--------------------------|--|-----------------------------|------------------------------------|
| supplier's name          | Mason Color Works, Inc.                                    | emergency telephone no.     | 216-385-4400                       |
| address                  | 250 E. 2nd Street, P.O. Box 76, East Liverpool, Ohio 43920 |                             |                                    |
| date this form prepared  | June 1993  | Responsible for preparation | Carol M. Cronin                    |
| Trade Name & Synonyms    | Persimmon 6029 (K-1403) (no lead)                          | CAS Number                  | 68186-88-9* 68201-65-0* 65997-18-4 |
| Chemical Name & Synonyms | Cr Al Zn Pink - Spinel                                     | Basic Chemical Formula      | $Zn(Al,Cr)_2O_4$                   |
|                          |  | Chemical Family             | Inorganic Pigment                  |

## SECTION II - HAZARDOUS INGREDIENTS

| INGREDIENT                       | % Wt.        | ACGIH-TWA  | OSHA-PEL  |
|----------------------------------|--------------|--|---|
| CHROME OXIDE<br>CAS # 1308-38-9  | 5%-10%       | 0.5 mg/m <sup>3</sup> as Cr                            | 0.5 mg/m <sup>3</sup> as Cr                                     |
| IRON OXIDE<br>CAS # 1309-37-1    | 5%-10%       | 5 mg/m <sup>3</sup> as Fe                              | 5 mg/m <sup>3</sup> as Cr                                       |
| ZINC OXIDE<br>CAS # 1314-13-2    | 30%-35%      | 10 mg/m <sup>3</sup> dust<br>5 mg/m <sup>3</sup> fumes | 10 mg/m <sup>3</sup> dust<br>5 mg/m <sup>3</sup> fumes          |
| ALUMINA OXIDE<br>CAS # 1344-28-1 | 30%-35%      | 10 mg/m <sup>3</sup> as Al                             | 10 mg/m <sup>3</sup> as Al                                      |
| BORON OXIDE<br>CAS # 1303-86-2   | less than 5% | 10 mg/m <sup>3</sup>                                   | 10 mg/m <sup>3</sup><br>5 mg/m <sup>3</sup> respirable fraction |
| CALCIUM OXIDE<br>CAS # 1305-78-8 | less than 5% | 2 mg/m <sup>3</sup>                                    | 5 mg/m <sup>3</sup>   |
| SILICA OXIDE<br>CAS # 14808-60-7 | 10%-15%      | 0.1 mg/m <sup>3</sup> as dust                          | 0.1 mg/m <sup>3</sup> as dust                                   |

\* Contains modifiers

## SECTION III - SYMPTOMS OF OVEREXPOSURE

Zinc - Inhalation of high levels of zinc oxide may result in tightness of chest, metallic taste, cough, dizziness, fever, chills, headache, nausea, and dry throat.

Calcium - No acute effects. Long term overexposure to high concentrations of this dust without the use of a dust mask may produce X-ray evidence of dust in lungs. If continued, may affect respiratory function in some individuals.

Silica - Undue breathlessness, wheezing, cough, and sputum production. Long term exposure to silica dust can cause silicosis which is characterized by shortness of breath.

Crystalline Silica is listed by the International Agency for Research on Cancer (IARC) as 2A: Sufficient evidence in laboratory animals and limited evidence of carcinogenicity in humans. Conclusions were based on long-term exposure to crystalline silica in the stone cutting industry. Studies are in progress to evaluate low-level and sporadic exposure to crystalline silica.

Chrome - Repeated or prolonged exposure to trivalent compounds may cause delayed effects involving the respiratory system. Causes Skin & eye irritation.

Boron - Nausea, vomiting, diarrhea. Slight irritation to eye. No irritation to skin.  
Inhalation - sneezing and coughing.

According to OSHA CFR Part 1910-1200 (Hazard Communications) crystalline silica, Lead and Chromium compounds are deemed to be a possible cancer hazard. This is based on assessment by the NTP (National Toxicology Program) that they reasonably be anticipated to be a carcinogen and an assessment of IARC (International Agency of Research on Cancer) which concluded that the evidence of carcinogenicity to humans was sufficient. However, there have been no studies demonstrating an excess cancer risks in workers exposed to chromium oxide in their use.

Alumina - Acute inhalation overexposure may cause coughing and shortness of breath. Chronic inhalation overexposure may adversely effect breathing capacity. Direct eye contact may cause eye irritation. Skin contact may cause abrasions.

Iron Oxide - May cause mechanical Skin and eye irritation. Repeated and prolonged exposure to Iron Oxide dust may cause benign pneumoconiosis called siderosis.

SECTION IV - HEALTH HAZARD DATA

occupational exposure limits

See Section II

effect of overexposure

EYE - May cause irritation.

SKIN - Skin contact may cause irritation, allergic dermatitis.

INHALATION- Inhalation causes irritation of the respiratory tract and may cause disabling, progressive pulmonary fibrosis due to the free quartz silica.

INGESTION - Toxic, may cause excessive coughing, intestinal disorders.

EMERGENCY AND FIRST AID PROCEDURES

EYE - Flush thoroughly with potable water for 15 minutes. Consult physician.

SKIN - Remove contaminated clothing, wash thoroughly with soap & water. Consult physician.

INHALATION- Remove to fresh air. May give oxygen. Consult physician.

INGESTION - Induce vomiting if conscious. Consult physician.

SECTION V - SPECIAL PROTECTION INFORMATION

respiratory protection (specific type)- Use NIOSH approved respiratory protection where airborne level exceeds appropriate Occupational Exposure Limit.

|             |                      |   |
|-------------|----------------------|---|
| ventilation | local exhaust        | special                                   |
|             | X                    | N/A                                       |
|             | mechanical (general) | other                                     |
|             | X                    | adequate to maintain below exposure limit |

personal protective equipment - Wear appropriate gloves & goggles to avoid skin and eye contact. Safety showers and eye stations must be present in work area.

SECTION VI - SPECIAL PRECAUTIONS

precautions to be taken in handling & storing - Keep container closed. Protect physical damage. Avoid contact with eyes, skin & clothing.

other precautions - Avoid breathing and use only with adequate ventilation. Wash thoroughly after handling. No food or beverage should be consumed in work area.

SECTION VII - PHYSICAL DATA

|                     |                        |                            |                      |
|---------------------|------------------------|----------------------------|----------------------|
| boiling point (F°)  | appearance & odor      | specific gravity (water=1) | % volatile by volume |
| N/A                 | Pink powder - odorless | N/A                        | None                 |
| solubility in water | vapor pressure (mm Hg) | vapor density (air=1)      | evaporation rate     |
| Trace               | N/A                    | N/A                        | None                 |

SECTION VIII - REACTIVITY DATA

|           |          |                     |                          |                |                     |
|-----------|----------|---------------------|--------------------------|----------------|---------------------|
| STABILITY | unstable | conditions to avoid | hazardous polymerization | may occur      | conditions to avoid |
|           | stable   |                     |                          | will not occur |                     |
|           | X        | N/A                 |                          | X              | N/A                 |

incompatibility (materials to avoid)

N/A

hazard decomposition products

N/A

## SECTION IX - FIRE AND EXPLOSIVE DATA

|                                  |  |     |     |
|----------------------------------|--|-----|-----|
| flash point (method used)        | flammable limits   | LEL | UEL |
| Non-Flammable                    |  | N/A |     |
| extinguishing media              | Carbon dioxide, dry chemical or water spray  |     |     |
| special fire fighting procedures | Not a fire hazard. Wear self-contained breathing apparatus when large quantities are involved. |     |     |
| unusual fire & explosion hazard  | None expected.   |     |     |

## SECTION X - SPILL OR LEAK PROCEDURES

|   |   |
|---|---|
| steps to be taken in case material is released or spilled | Contain spill. Pick up the spill in an appropriate container for disposal |
| waste disposal method                                     | Dispose in accordance with Federal, State and Local Laws.                 |

## MATERIAL OR COMPONENT

This product is a mixture of various metal oxides, salts and some compounds, considered to be a nuisance dust, are interfused to form the final product which does not represent individual components.

This product contains the compounds Chrome, Zinc, Alumina and Silica. These toxic chemicals are subject to the reporting requirements of Superfund Amendment and Reauthorization Act (SARA) of 1986, Section 313 of the Emergency Planning and Community Right to Know Act and of 40 CFR, Part 372.

This Material Safety Data Sheet should be made available by the buyer to each of buyer's plant workers.

The buyer assumes all risk in connection with the use and handling of the material. The seller assumes no responsibility or liability in connection with the information supplied in this sheet or for any damage or injury caused by the material; reasonable safety procedures should be followed. The seller assumes no responsibility for injury or damage caused by use of the material even if reasonable safety procedures are followed. The information contained in this sheet is developed from what is believed to be accurate and reliable sources but the seller makes no warranties, either expressed or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein.