MATERIAL SAFETY DATA SHEET

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: March, 1991

Responsible for preparation: Ronald K. Mason

Chemcial Family: Inorganic Pigment

Trade Name & Synonyms: Coral 6009 (213)

CAS Number: 68187-12-2* 68186-93-6* 10101-52-7*

Chemical Name & Synonyms: Cr Sn V Coral

Basic Chemical Formula: $CaO.SnO.SiO_2:Cr_2O_3 + (Sn,V)O_2$

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	% Wt.	ACGIH-TWA	OSHA-PEL
TIN OXIDE CAS # 18282-10-5	45%-50%	2 mg/m^3 as Sn	2 mg/m^3 as Sn
CALCIUM OXIDE CAS # 1305-78-8	5%-10%	2 mg/m^3	5 mg/m^3
SILICA, CRYSTALLINE (QUARTZ) CAS # 14808-60-7	20%-25%	0.1 mg/m^3 as dust	0.1 mg/m^3 as dust
CHROME OXIDE CAS # 1308-38-9	less than 5%	0.5 mg/m^3 as Cr	0.5 mg/m^3 as Cr
BORON OXIDE CAS # 1303-86-2	less than 5%	10 mg/m^3	10 mg/m^3 5 mg/m^3 respirabl fraction
FLUORIDE CAS # 7789-75-5	less than 5%	2.5 mg/m^3	2.5 mg/m^3
VANADIUM OXIDE CAS # 12036-21-4	less than 5%	0.05 mg/m^3 dust & fume	0.05 mg/m^3 dust & fume
ALUMINA OXIDE CAS # 1344-28-1	less than 5%	10 mg/m^3 as Al	15 mg/m^3 as Al
ZIRCONIUM OXIDE CAS # 1314-23-4	5%-10%	5 mg/m^3 as Zr	5 mg/m^3 as Zr

* Contains modifiers

SECTION III - SYMPTOMS OF OVEREXPOSURE

Tin - No information found on acute overexposure. Chronic exposure to Tin Oxide fumes or dust may result in Stannosis, a form of Pneumoconiosis.

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) as2A: Sufficient evidence in laboratory animals and limited evidence of carcinogencity 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.

Fluorspar - Irritation to eyes, skin or respiratory.

According to OSHA CFR Part 1910-1200 (Hazard Communications) crystalline silica and Chromium 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 carcinogencity to humans was sufficient. However, there have been no studies demonstrating ant excess cancer risks in workers exposed to chromium oxide in their use.

Vanadium - Overexposure: heavy coughing, and shortness of breath are the first signs. Can be followed by pallor, loss of appetite, and increase or decreased red cell count.

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.

Zirconium Oxide - Chronic overexposure: May damage teeth, cause ulceration of mucous membranes. Acute: Strong irritant coughing, choking, corrosive to tissue.

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: X	special: N/A
	mechanical (general): X	other: 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: X	N/A		will not occur: 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 Chromium, Silica, Vanadium, and Alumina compounds. 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.