

A. P. GREEN REFRACTORIES CO.

MEXICO, MISSOURI 65265 U.S.A.

Subsidiary Of USG Corporation

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MATERIAL SAFETY DATA SHEET

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SECTION I

PRODUCT NAME: CHAMPION SM
CTX
CTX-FG
CTX-HT
CTX-HT-P
CTX-P
EMPIRE AH
EMPIRE DP
EMPIRE S
EMPIRE SF
EMPIRE SM
EMPIRE SM B
EMPIRE TP
EMPIRE WM
IDAHO
MONARC DP
MONARC SM
PCP-C
S-1 DP
S-1 SM

PRODUCT TYPE: Refractory Bricks or Shapes

CHEMICAL FAMILY: $\text{SiO}_2 = 57-64\%$, $\text{Al}_2\text{O}_3 = 35-41\%$, $\text{Fe}_2\text{O}_3 = 1-3\%$, $\text{Na}_2\text{O} = 1.0-3.5\%$ FORMULA: Proprietary

SECTION II

PRODUCT HAZARDOUS INGREDIENTS

<u>Chemical</u>	<u>TWA</u>	<u>CAS #</u>
Cristobalite* (SiO_2)	0.05 mg/m ³ ** Respirable Dust	14464-46-1
Quartz* (SiO_2)	0.1 mg/m ³ ** Respirable Dust	14808-60-7

*Not mechanically separate from each other or from other mineralogical phases in product as supplied.

**Source: American Conference of Governmental Industrial Hygienists, 1985-1986.

SECTION III

PHYSICAL DATA

SOLUBILITY IN WATER: None VOLATILES BY VOLUME (%): None
SPECIFIC GRAVITY: 2.6-2.7 MELTING POINT: Not Applicable
APPEARANCE AND ODOR: Buff to brown solid; no odor

SECTION IV

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: None
EXTINGUISHING MEDIA: Not Combustible
SPECIAL FIRE FIGHTING PROCEDURES: None
UNUSUAL FIRE AND EXPLOSION HAZARDS: None Known

SECTION V

HEALTH HAZARD DATA

EFFECT OF OVER EXPOSURE:

<u>EYES</u>	ACUTE: Dust or chips can cause mechanical irritation. CHRONIC: None Known
<u>SKIN</u>	ACUTE: Can cause mechanical abrasion or cuts. CHRONIC: None Known
<u>INHALATION</u>	ACUTE: Dust, if present, may cause upper respiratory irritation. CHRONIC: Dust may cause lung damage if inhaled on a long-term basis.
<u>INGESTION</u>	ACUTE: Unknown CHRONIC: Unknown

SECTION V (cont'd)

HEALTH HAZARD DATA

EMERGENCY AND FIRST AID PROCEDURES:

EYES Immediately flush with water for 15 minutes. Consult physician if irritation occurs.

SKIN Treat abrasions or cuts using normal first aid procedures.

INHALATION Remove to fresh air. Seek medical attention.

INGESTION Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is not toxic as supplied, but its abrasive nature could damage internal organs.

SECTION VI

REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY: None Known

HAZARD POLYMERIZATION: Will Not Occur

SECTION VII

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: For broken shapes or fragments, sweep, shovel up, or pick up.

WASTE DISPOSAL METHOD: Can be disposed of in an approved landfill, in accordance with local, state, and federal regulations.

SECTION VIII

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when cutting or when removing this product after service.

VENTILATION: General mechanical ventilation is adequate.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn. Entry of chips into the eyes is a serious hazard, and eye protection should be worn at all times.

OTHER PROTECTION: Use of leather gloves and long-sleeved and long-legged clothing protects hands, arms, and legs from cuts or skin abrasion. Safety shoes should be worn to protect feet from accidentally dropped bricks or shapes.

SECTION IX

SPECIAL PRECAUTIONS

NIOSH approved respirators should be worn any time that refractories are torn out after service. While some respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may also be present as a result of use conditions. These foreign substances may warrant additional precautions during tearout and disposal.

This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Refractories or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

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