MATERIAL SAFETY DATA SHEET

A. P. GREEN INDUSTRIES, INC. GREEN BOULEVARD, MEXICO, MO. 65265 TELEPHONE NUMBER -- 314-473-3626

SECTION I

PRODUCT NAME:

'SAIRBOND 'SAIRBOND 32

PRODUCT TYPE:

Refractory Mortar

CHEMICAL FAMILY:

 $sio_2 = 42-498$ $re_2o_3 = 1-28$

 $A1_20_3 = 40-46$ % NaKO = 2-3%

FORMULA: Not Applicable

SECTION II

PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL

TLV-TWA

CAS #

Cristobalite (SiO2)

 0.05 mg/m^{3*}

14464-46-1

(10-20%)

respirable dust

Quartz (SiO2)

0.1 mg/m^{3*}

14808-60-7

respirable dust

(<4%)

None

6834-92-0

Dry Sodium Silicate (8-12%)

American Conference of Governmental Industrial Hygienists, 1991-1992.

*Source:

SECTION III

PHYSICAL DATA

SOLUBILITY IN WATER:

Slight

SPECIFIC GRAVITY:

2.2

MELTING POINT: Not Applicable

APPEARANCE AND ODOR:

Buff to gray granular powder; 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

SECTION V

HEALTH HAZARD DATA

EFFECT OF OVEREXPOSURE:

EYES:

ACUTE: Dust or aggregate particles can cause mechanical irritation. Sodium silicate

can cause eye injury or irritation.

CHRONIC: Unknown

SKIN:

ACUTE: Can cause mechanical abrasion. Sodium silicate can cause skin drying and

chapping.

CHRONIC: Unknown

INHALATION:

ACUTE: Dust, if present, can cause upper respiratory irritation.

CHRONIC: Dust may cause lung damage if inhaled on a longterm basis.

INGESTION:

ACUTE: Unknown

CHRONIC: Unknown

Material Safety Data Sheet Product: 'SAIRBOND, etc.

Section V (continued)

EMERGENCY AND FIRST AID PROCEDURES:

EYES:

Immediately flush eyes with water for 15 minutes. Obtain prompt medical attention.

SKIN:

Wash exposed areas promptly. Seek medical attention.

INHALATION:

Remove to fresh air. Seek medical attention.

INGESTION:

Contact physician immediately. Do not induce vomiting unless instructed to do so by a

physician.

SECTION VI

REACTIVITY DATA

STABILITY:

Stable

INCOMPATIBILITY:

None known

HAZARDOUS POLYMERIZATION:

Will not occur

SECTION VII

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep or shovel up and place in a container. Predampening reduces tendency to dust.

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

SECTION VIII

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use NIOSH approved respirator when working around dried material and when removing this product after service.

VENTILATION:

General mechanical ventilation is adequate.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

OTHER PROTECTION: Use of rubber gloves and long sleeved and long legged clothing protects hands, arms, and legs from skin contact.

SECTION IX

SPECIAL PRECAUTIONS

Warning: This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Its study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

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 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 except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith

Title: Senior Technical Consultant

Phone: (314) 473-3392