MATERIAL SAFETY DATA SHEET

A. P. GREEN REFRACTORIES COMPANY Green Boulevard, Mexico, Missouri 65265 Tel. 314-473-3626

Product Name: CASTABLE BLOCK MIX Prod

Product Type: Insulating Castable

Product Chemical Analysis:

| SiO ₂ | 29.0 - 32.0% |
|---------------------------|--------------|
| A1,6, | 11.0 - 13.0 |
| Fe ² 03 Ca0 | 6.5 - 7.5 |
| Cab 3 | 33.0 - 35.0 |
| Mg0 | 12.5 - 13.5 |
| TiO ₂ | 1.5 - 2.5 |
| NaKO | 1.0 - 2.0 |

Product Proximate Analysis (Ingredients):

| Vermiculite | 35 | to | 50% |
|--------------------|----|----|-----|
| Portland Cement | 50 | to | 60 |
| Diatomaceous Earth | 1 | to | 6 |

Potential Health Hazard Data:

- 1. This product contains 0 to 2% quartz.
- 2. This product's cement may cause drying out and chapping of the skin, and will irritate the eyes if it enters them.

Recommended Disposal Method:

- Normal housekeeping procedures should be followed in the event of spilled castable.
- Waste material may be removed to an approved landfill or dump.

Recommended Handling Procedures:

- 1. Wear standard safety glasses.
- 2. Avoid breathing of dust while handling dry material.
- 3. Wear gloves to protect hands from chapping.
- 4. In case of contact with skin or eyes the contacted area should be washed thoroughly with water.

- Safety shoes may be worn to protect feet from dropped containers.
- 6. Avoid breathing of dust during refractory tear-out after service.

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.

Material Safety Data Sheet

J. H. FRANCE REFRACTORIES CO.

Clarence Road, Snow Shoe, PA 16874

Product/Material

FRANCO LITE 21 LIGHT WEIGHT

Phone No.

Date: July 1, 1987

Revised

(814) 387-6811

SECTION I - Product Identification

TRADE NAME: Franco Lite 21 Light Weight

SYNONYM: Refractory Concrete, Insulating Light Weight

CHEMICAL FAMILY: Refractory Concrete

FORMULA: Alumina minority, Silica majority, Lime minority

CAS NUMBER: 65997162, 1302938

SECTION II — Hazardous Ingredients

Product contains an unknown quantity of free silica which has a TLV of 0.1 mg/cu M. It also contains lime which may cause eye and skin irritations.

SECTION III - Physical Data

BOILING POINT (F): Not applicable

VAPOR PRESSURE (mmHg): Not applicable

VAPOR DENSITY: Not applicable

SOLUBILITY IN WATER: Not soluble

SPECIFIC GRAVITY: 21 pcf APPEARANCE AND ODOR:

Non odorous, tan to grey granular mixture.

SECTION IV — Fire and Explosion Hazard Data

FLASH POINT: Not applicable

EXPLOSIVE TENDENCY: Care must be exercised during the initial firing. CONSULT MANUFACTURER FOR FURTHER

INFORMATION.

EXTINGUISHING MEDIA: None required

SPECIAL FIRE FIGHTING PROCEDURES: None required

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION V - Health Hazard Data

THRESHOLD LIMIT VALUES:

Alumina Cement

Percentage: Ingredients: LW Aggregate 60

TLV 5 mg/cu M.

10 mg/cu M.

EFFECTS OF OVEREXPOSURE:

May cause serious pulmonary disorders over a prolong period of dust inhalation.

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EMERGENCY AND FIRST-AID PROCEDURES:

Consult with physician.

JN VI — Reactivity Data

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INCOMPATIBILITY: None

SECTION VII — Spill or Leak Procedures

STEPS TO TAKE IN CASE MATERIAL IS RELEASED OR SPILLED:

If product is dry, use dry clean-up procedures; avoid dusting. Collect in containers or bags. If reuse or recycling is not possible, material may be disposed of at a sanitary landfill.

WASTE DISPOSAL METHOD: Dispose of in accordance with

federal, state, and local regulations.

SECTION VIII — Special Protection Information

Use with adequate ventilation to meet the exposure limits (TLV). Where the exposure limit is or may be exceeded, use NIOSH approved respiratory protection. The selection of the appropriate respirator should be based on the actual or potential contaminants and their concentrations present.

SECTION IX — Special Precautions

Handling equipment should be designed to keep airborne dust to a minimum for worker comfort.

SECTION X — Disclaimer

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