NO.509 MAR.28.2003 10:59AM HAMMILL & GILLESPIE

L & GILLESPIE,

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MATERIAL SAFETY DATA SHEET

To comply with OSHA's 29 CFR 1910.1200 and Bill No. 70 WHMIS Hazard Communications Standards.

SECTION I. Identity of Product and Producer

Date Prepared: October 8, 1999 Reviewed: January 2, 2002 Trade Name: Blackbird, Barnard

Chemical Name: BALL CLAY, Hydrous Aluminum Silicate

CAS NUMBER 1332-58-7

PRODUCERS NAME AND ADDRESS

TELEPHONE NUMBERS

EMERGENCY CONTACT

Hammill & Gillespie, Inc.

P. O. Box 104 Livingston, NJ 07039 973-994-3650

973-994-3847 FAX

CHEMTREC: 800-424-9300*

"To be used only in the event of chemical emergencies involving a spill, leak, fire exposure, or accident involving chemicals.

SECTION II. Hazardous Ingredients

Free Silica (Quartz)* Titanium Dioxide

Typically 10-30%

CAS No. 14808-60-7

Typically less than 2.6%

CAS No. 13463-67-7

"Bell clays contain crystalline silica, as quartz, up to 30% by dry weight. Some of this silica is not fine enough to normally be considered respirable.

SECTION III. Physical Data

Fusion Range:

1569-1785°C.

Specific Gravity:

2.4 - 2.65

Solubility in Water:

Negligible

Percent Volatile:

Below 100°C, None

Vapor Pressure:

Not Applicable

3.5-7.5

Odor and Appearance:

Earthy odor when wet, raw color light gray to brown

SECTION IV. Fire and Explosion Data: Non-flammable

SECTION V. Health Hazard Data

OSHA PEL:

Respirable Crystalline Quartz (TWA-TLV) = 0.1mg/m³

ACGIH:

Respirable Crystalline Quartz (TWA-TLV) = 0.1 mg/m³

Crystobalite & Tridymite (see stability) (TWA-TL \bar{V}) = 0.05mg/m³

NIOSH TWA: Respirable Crystalline Quartz = 0.05 mg/m³

ROUTE OF ENTRY: Inhalation

HEALTH HAZARDS: WARNING: This clay product contains crystalline silica which may cause delayed respiratory disease (silicosis) if inhaled over a prolonged period of time. Avoid breathing dust. Use NIOSH/MSHA approved respirator where TLV for crystalline silica may be exceeded.

IARC MONOGRAPH VOLUME 68,1997 concludes that there is sufficient evidence that inhaled crystalline silica causes

cancer in humans. IARC classification: Group I.

The NTP, in the Sixth Annual Report on Carcinogens, 1991, has added crystalline silica to its list of substances that are

"reasonably anticipated to be carcinogens."

WARNING: This product contains Titanium Dioxide (TiO2). Inhalation may cause damage to respiratory system.

Identified as a potential carcinogen by NIOSH. OSHA TWA for TiO2 is 15 mg/m3.

FIRST AID: Eyes: Flush thoroughly with water for 10 to 15 minutes. Contact physician if irritaion persists.

Breathing: If breathing difficulty develops, remove to fresh air. If breathing difficulty persists, contact

physician.