GELEST, INC.

11 East Steel Rd. Morrisville, PA 19067 Phone: (215) 547-1015

MATERIAL SAFETY DATA SHEET

EMERGENCY TELEPHONE CHEMTREC: 1-800-424-9300

NAME USED O CHEMICAL NAM SYNONYMS:CO CHEMICAL FAM FORMULA: C ₃₂	ME: COBALT I DBALTOUS PI MILY:COBALT	I PHTHAL HTHALOC	OCYANINE YANINE		- AKC238		
HMIS CODES	MIS CODES HEALTH: 2 FLAMMABILITY: 2 REACTIVITY: 0						
INGREDIENTS							
IDENTITY			CAS NO.	%	TLV	OSHA PEL	

COBALT II PHTHALOCYANINE



Boiling Point: >300°C Specific Gravity: >1 Vapor Density: NA % volatiles: <2 Molecular Weight: 571.47 Appearance & Color: Purple powder.

PHYSICAL DATA

Melting Point: >200°C Vapor Pressure: not determined Solubility in water: 2.4g/liter Evaporation rate: NA Other: NA

>95% not established

0.05mg(Co)/m³ 0.1mg(Co)/m³

FIRE & EXPLOSION DATA

Flash Point, COC: >200°C (>392°F) Autoignition Temp.: not determined Flammability Limits- LEL: NA UEL: NA

Extinguishing Media: Water spray, foam, carbon dioxide, dry chemical. Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.

Unusual Fire and Explosion Hazards: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

-1-(AKC238)

ENVIRONMENTAL INFORMATION

Spill response: Sweep material and transfer to a suitable container for disposal.

Recommended Disposal: Dispose of as solid waste. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

Eye Contact: May cause immediate or delayed severe eye irritation.

Skin contact: May produce irritation or contact dermatitis. Hypersensitivity of the skin to certain cobalt compounds has beem demonstrated. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of dust or particulates may irritate the respiratory tract. Cobalt compounds are suspect carcinogens of connective tissue and lungs.

Oral Toxicity: not determined Chronic Toxicity: not determined

SUGGESTED FIRST AID

EYES: In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention.

SKIN: Flush with water, then wash with soap and water.

INHALATION: Move exposed individual to fresh air. Administer oxygen if needed. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

REACTIVITY DATA

Stability: Stable Conditions to avoid: Store away from oxidizers. Hazardous decomposition products: Organic acid vapors and cobalt oxide fumes.

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Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose, LC: Lethal Concentration; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; HMIS: Hazardous Material information System; CAS No.: Chemcial Abstract Service Registration Number Gelest, Inc. © 2008

SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended. Respiratory Protection: If exposure exceeds PEL, NIOSH approved dust and mist respirator.

Eye and Face Protection: Chemical worker's goggles. Do not wear contact lenses. Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency shower should be available. Launder clothing before reuse.

Keep workplace clean, prevent product dusting.

OTHER PRECAUTIONS

For research and industrial use only.

Storage and Handling: Store in sealed containers.

TRANSPORTATION

DOT SHIPPING NAME: CHEMICALS, NOI DOT HAZARD CLASS: NOT REGULATED DOT LABEL: NOT REQUIRED DOT ID No: NOT REQUIRED

Prepared by safety and environmental affairs

AKC238 ISSUE DATE: 4/2/04 SUPERSEDES: 10/8/02

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