

Pre-Reduced Indigo**MSDS No:** 693 **Date:** 09/21/10**1. Product Identification**

Product Name: Pre-Reduced Indigo
Product Code: #693
Chemical Nature: Indigo Blue Grains 60%
Color Index Name: Reduced Vat Blue 1
T.S.C.A Status: N/A

2. Hazardous Ingredients

Hazardous Components: None known
Current TLV's: N/A

NFPA Ratings

Health 2
Flammability 1
Reactivity 0

HMIS Ratings

Health 1
Flammability 1
Reactivity 0

4=Extreme

3=High

2=Moderate

1=Slight

0=Insignificant

3. Physical Data

Appearance: Powder & Grains
Color: Blue
Odor: Odorless
Solubility in Water: Soluble
pH: Alkaline
Bulk Density: Approximately 400 kg/m³

4. Fire and Explosive Data

Flash Point: N/A
Extinguishing Media: Water spray, dry extinguishing media, foam.
Unsuitable Extinguishing Media: Carbon dioxide (for safety reasons).
Special Fire Fighting Procedures/Unusual Fire or Explosive Hazards: Harmful vapors.
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.
Special Protective Equipment: Wear a self-contained breathing apparatus.
Additional Information: Avoid whirling up the material/product because of the danger of dust explosion. The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

5. Health Effects Data

Animal Toxicity Oral – LD50 (ingestion): No Data
Fish, LC50: No Data
Eye Effects: Primary irritations of the mucous membrane/rabbit: non-irritant
Skin Effects: Primary skin irritation/rabbit: non-irritant
Human Effects of Overexposure: Avoid breathing dust; inhalation may cause coughing and sneezing. Avoid contact with skin or eyes, will discolor the skin. Wash thoroughly after handling.

6. Emergency and First Aid Procedures

Eye Contact: Wash affected eyes for at least 15 minutes under running water with eyelids held open.

Skin Contact: Wash thoroughly with soap and water.

Ingestion: Rinse mouth and then drink plenty of water.

Note to Physician: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

Inhalation: If difficulties occur after dust has been inhaled remove to fresh air and seek medical attention.

7. Employee Protection Recommendations

Eye Protection: Safety glasses with side-shields (frame goggles).

Skin Protection: Chemical resistant protective gloves e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7mm). Other manufacturer's directions for use should be observed because of great diversity of types. Due to the coloring properties of the product closed work clothes (coveralls) should be used in order to avoid stains during manipulation.

Respiratory Protection: Suitable respiratory protection for lower concentrations or short term effect: Particle filter Type P2, medium efficiency, (solid and liquid particles of harmful substances).

Ventilation: Local

Other: Handle in accordance with good industrial hygiene and safety practice.

8. Reactivity Data

Stability: Stable

Polymerization: N/A

Incompatibility (materials to avoid): None known

Hazardous Decomposition Products: No hazardous decomposition products if stored and handled as prescribed/indicated.

9. Spill or Leak Procedures

In Case Material is Released/Spilled: Avoid dust formation. Use personal protective clothing. Contain contaminated water/firefighting water. Do not discharge into drains/surface water or groundwater.

Waste Disposal Method: For small amounts, pick up with suitable appliance and dispose of. For large amounts, contain with dust binding material and dispose of. Avoid raising dust. Must be dumped or incinerated in accordance with local regulations. Contaminated packaging should be disposed of in the same manner as the contents.

10. Special Precautions and Storage Data

Handling and Storing Precautions:

Handling: breathing must be protected when large quantities are decanted without local exhaust ventilation. As protection against fire and explosion avoid dust formation and take precautionary measures against static discharges.

Storage: keep container tightly closed and dry, store in a cool place.

11. Shipping Data

Proper Shipping Name: Non Hazardous Material
D.O.T. Hazard Classification: N/A
Frt. Class Package: N/A
Not regulated by IATA
OK to ship via air transport

12. Ecological Information

Persistence and degradability:

Evaluation: Well eliminable from water by absorption on activated sludge.

Assessment: The product is not very soluble in water and can thus be removed from water mechanically in suitable effluent treatment plants.

Other adverse effects: Absorbable organically-bound halogen (AOX): 2.5%. This product contains according to the formulation, organically bound halogen. It can increase the AOX-value in the water purification plants overflow or if it reaches waters. The product contains: 8,8 W/W% copper. The heavy metals mentioned are present in complex bound form as substantial constituent of the colorant.

Other Eco toxicological advice: The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

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