

Agrielectric® RHA

MATERIAL SAFETY DATA SHEET

Section I - PRODUCT/COMPANY IDENTIFICATION

| | | | |
|---------------------|--|----------------------|---------------|
| Manufacturer | Agrielectric Research Company | Product | RHA |
| Address | P.O. Box 3716 Lake Charles, LA. 70602 | Date Prepared | June 2001 |
| Telephone | 337-430-0006 | Last Revision | November 2008 |

Section II - COMPOSITION/DATA ON COMPONENTS

Chemical Characterization

CAS Number 71630-92-7 ashes (residues), rice husk

Section III - HAZARD IDENTIFICATION

Eye: May cause eye irritation on contact.

Skin: May cause skin irritation.

Inhalation:

Acute: Exposure to the product may cause irritation to the throat and nasal passages.

This product contains less than 1.5% crystalline silica. Rapidly developing silicosis may result from heavy exposure to respirable crystalline silica where recommended respiratory protection is not used.

Chronic: Cancer Hazard. This product contains less than 1.5% crystalline silica which is listed by IARC and NTP as a known human carcinogen. Prolonged exposure to respirable crystalline silica may cause silicosis. Silicosis is a form of progressive disabling pulmonary fibrosis characterized by shortness of breath, coughing, and diminished breathing capacity which may lead to death. If silicosis develops the chances of getting tuberculosis are increased.

Section IV - FIRST AID

Eye: Flush thoroughly with water for 15 minutes. Consult physician if irritation persists.

Inhalation: Remove to fresh air. Give oxygen or CPR if necessary, consult physician.

Skin: Flush with plenty of water. Wash clothing to remove dust.

Section V - FIRE AND EXPLOSION HAZARD DATA

Flash Point: Non-Flammable

Lower Limits: None

Upper Limits: None

Special Fire Fighting Procedures: None

Unusual Fire & Explosion Hazards: None

Section VI - ACCIDENTAL RELEASE MEASURES

In case of Spill: Clean up in manner to minimize dust. Wetting of material reduces and eliminates dust. Material can be washed from surfaces.

Waste Disposal Method: Dispose of according to local, state, and federal regulations.

Section VII - HANDLING & STORAGE

Handling: Use dustless system for handling and employee engineering controls to reduce concentrations of airborne dust. Avoid Spills.

Other Precautions: Post warning signs to alert personnel to potentially dusty areas. Practice good housekeeping and provide approved respirators if workers are exposed to dust.

Section VIII – EXPOSURE CONTROL/PERSONNEL PROTECTION

| Components: | OSHA-PEL | | ACGIH-TLV | |
|---------------------|-----------------------|------|-----------------------|------|
| | TWA | STEL | TWA | STEL |
| Amorphous Silica | 80mg/m^3 | None | 10 mg | None |
| Crystalline Silica* | % SiO ₂ | | | |
| Total dust | 30mg/m^3 | None | _____ | None |
| | % SiO ₂ +2 | | | |
| Respirable dust | 10mg/m^3 | None | 0.05mg/m ³ | None |
| | % SiO ₂ +2 | | | |
| Potassium Oxide | None | None | None | None |

* For Cristobalite use 1/2 the amount calculated from the formula for Total dust and Respirable dust

Engineering Controls: Good ventilation should be provided at all times. Local exhaust and dust collection system (Bag house type) should be used to control dust exposures.

Respiratory Protection: Where work place exposure limits are exceeded and engineering controls are not practicable, use NIOSH/MSHA approved respirators to control exposures.

Eye Protection: ANSI approved goggles.

Other protective equipment: Facilities using this material should be equipped with an eye wash readily accessible in work areas.

Section IX – PHYSICAL & CHEMICAL PROPERTIES

| | |
|--|---|
| Boiling Point: N/A | Bulk Density (lb/ft ³): 16-22 |
| Vapor Pressure (mm Hg): N/A | (gr/ltr): 256-352 |
| Vapor Density (Air=1): N/A | Melting Point: >2000° F |
| Evaporation Rate (Butyl Acetate=1): N/A | Solubility in Water: Not Soluble |
| Appearance and Odor: Coarse Black Powder, No Odor. | |

Section X – STABILITY & REACTIVITY

Hazardous Instability: None Known.

Polymerization: Will not occur.

Hazardous decomposition properties: May decompose to hydrogen chloride.

Incompatibility (materials to avoid): Hydrofluoric acid (HF) and other oxidizing agents.

Section XI – TOXICOLOGY INFORMATION

Skin: May be abrasive to the skin.

Eye: Can cause eye irritation.

Ingestion: Can cause irritation due to abrasiveness of silica.

Inhalation: Prolonged exposure to respirable crystalline silica may cause silicosis. Acute or rapidly developing silicosis may occur in a short period of time during heavy exposure to crystalline silica.

Carcinogenicity: The National Toxicology Program (NTP) concluded in its Ninth Annual Report on Carcinogens that respirable crystalline silica is a known human carcinogen. The International Agency for Research Causes (IARC) concluded in its 1997 monographs on the Evaluation of Carcinogenic Risk to Humans that respirable crystalline silica is known to be a human carcinogen.

Section XII – ECOLOGICAL INFORMATION

Ecological data have not been determined for this product.

Section XIII – DISPOSAL CONSIDERATIONS

Consult permitted waste disposal site to assure compliance with all current local, state and federal regulations.

Section XIV – TRANSPORTATION

N/A

Section XV – REGULATORY INFO

The Canadian Workplace Hazardous Material Information System (WHMIS) classification for Silica is D2A. This product has been classified in accordance with the hazard criteria of the Canadian Controlled Product Regulation (CPR) and the MSDS contains all the information required by the CPR.

Section XVI – OTHER INFO

N/A