



Dry Tech Aerogels (Pty) Ltd

The right coating for ultimate insulation.

Aerogel Products and Integrated Service Provider Leader in Energy Conservation and Environmental Protection Innovative Technology

Product Safety Data Sheet

Elementum Ultra-Fire (Product Codes AER021)

NAV = Not Available **NAP** = Not Applicable

SECTION I – IDENTIFICATION OF THE PRODUCT AND THE COMPANY PRODUCT IDENTIFIER:

Elementum Ultra Fire (AER021) PRODUCT USE: Fire Barrier Coating MANUFACTURER: Dry Tech Aerogels (Pty) Ltd, 6 Rabie Street, Vanderbijlpark, Gauteng, RSA, 1911, EMERGENCY TELEPHONE #: (016) 931 1640.

SECTION II – HAZARDOUS INGREDIENTS HAZARDOUS INGREDIENTS % CAS/PIN LD50

(Species/Route) LC50 (Species) texanol 0.5-1.5 25265-77-4 3200 mg/kg (oral, rat) NAV mica 3 12001-26-2 NAV acrylic polymers 5 9003-01-4 NAV zinc borate 11 138265-88-0 NAV xylene 2 1330-20-7 NAV

SECTION III – HAZARD IDENTIFICATION This product is water-based and not classified as dangerous for supply and conveyance. The ingredients are water-reducible and fall well within acceptable safety limits. This product has been analysed for use in and around food manufacturing and found to be safe for use on non-contact surfaces. No toxics or toxic off-gassing is present.

SECTION IV - FIRST AID MEASURES INHALATION: Remove to fresh air. **EYES:** Flush eyes with water for at least 15 minutes; consult physician if irritation continues. **SKIN:** Wash with mild soap and water. **INGESTION:** Do not induce vomiting. Drink 1-2 glasses milk/water. Seek medical attention according to amount of product ingested.

SECTION V – FIREFIGHTING MEASURES HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, methacrylate and other noxious gases **CONDITIONS OF FLAMMABILITY:** Non-flammable, water-based product **FLASHPOINT & METHOD:** NAP **FLAMMABLE LIMITS:** (Lower) NAP % (Upper) NAP % **MINIMUM IGNITION ENERGY:** NAV **MEANS OF EXTINCTION:** Water, water fog, dry chemical, foam or CO2 **AUTOIGNITION TEMP:** NAP **SENSITIVITY TO STATIC DISCHARGE:** No **SENSITIVITY TO MECHANICAL IMPACT:** No **SPECIAL PROCEDURE:** Firefighters should wear full-body protection & SCBA **FIRE POINT:** NAV

SECTION VI – ACCIDENTAL RELEASE MEASURES Use kitty litter, sand or other absorbent to control spread and absorb liquid.

SECTION VII – HANDLING AND STORAGE REQUIREMENT: Keep from freezing. Store below 50 °C. Keep container closed tightly to prevent drying out. **HANDLING PROCEDURES and EQUIPMENT:** Treat as a paint product. Use ventilation and protective equipment to suit conditions of use. Use soap and water for clean up

SECTION VIII – EXPOSURE CONTROLS AND PERSONAL PROTECTION PERSONAL PROTECTIVE EQUIPMENT: Avoid inhalation of liquid when applying. Use particulate respirator. **ENGINEERING CONTROLS:** Use mechanical ventilation to control aerosol or mist if product is sprayed.

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES PHYSICAL STATE: Liquid **BOILING POINT:** 192 °C. **FREEZING POINT:** 30 °F. **ODOUR THRESHOLD:** 0.08-25ppm **pH:** 8 **COEFF. WATER/OIL:** NAV **SPECIFIC GRAVITY:** 11.4 **VAPOUR PRESSURE:** 17mmHg @ 20 C. deg. **APPEARANCE AND ODOR:** White colour, mild acrylic odour **EVAPORATION RATE:** Slow **VAPOUR DENSITY (Air = 1):** 2.1 **SOLUBILITY IN WATER:** Soluble/miscible

SECTION X – STABILITY AND REACTIVITY CONDITIONS OF REACTIVITY: Stable **CHEMICAL INCOMPATIBILITY:** Strong acids or bases **CONDITIONS OF INSTABILITY:** Stable **CORROSIVE BEHAVIOR:** No **HAZARDOUS DECOMPOSITION PRODUCTS:** None known, no hazardous polymerization

SECTION XI – TOXICOLOGICAL INFORMATION ROUTES OF ENTRY: Skin Contact: Eye Contact: X Ingestion: X Skin Absorption: Inhalation: **TERATOGENICITY:** NAV **REPRODUCTIVE TOXICITY:** NAV **SENSITIZATION:** Not Expected **MUTAGENICITY:** NAV **EXPOSURE LIMITS:** mica 3 mg/m³ (ACGIH) **CARCINOGENICITY:** Ingredients not listed **IRRITANCY:** Possible skin or eye irritation if not washed off **EFFECTS OF ACUTE EXPOSURE:** Liquid splash could result in eye or nose irritations and/or headache. **EFFECTS OF CHRONIC EXPOSURE:** Excessive exposure to liquid product may result in minor irritations.

SECTION XII – ENVIRONMENTAL INFORMATION AIR: This product is environmentally friendly and poses no threat to the air. **WATER:** The resins will be diluted and dissipate when flushed with water. **SOIL:** The resin contents are biodegradable in ground acids over a period of time. No ecological hazards are known to exist.

SECTION XIII – WASTE DISPOSAL Product spill should be contained by previously described absorption methods, and dried product disposed of as normal industrial waste according to all federal, state or governmental regulations.

SECTION XIV – TRANSPORT INFORMATION The only restriction to carriage is for protection against freezing as contents are water-based. **Tariff Code:** 3209.10.000 **SECTION XV – REGULATORY INFORMATION** Regulatory agencies and restrictions are minimal regarding conveyance or use of water-based products other than what has been specifically addressed.

SECTION XVI – OTHER INFORMATION NAV

PREPARATION INFORMATION PREPARED BY: W.A. Coetzee, BSc Elect, BSc Mech, MBA (University of Wales) 11/11/2016