## SECTION I - PRODUCT IDENTIFICATION

PRODUCT: ALUMINA PART NUMBER: KED-1018 SUPPLIER: Alpha Resources, Inc. TELEPHONE: 269-465-5559 P.O. Box 1999 Stevensville, MI 49127

TRADE NAME ALUMINA CHEMICAL NAME ALUMINUM OXIDE CHEMICAL FORMULA Al<sub>2</sub>0<sub>3</sub> CAS NUMBER 1344-28-1 HMIS RATING HEALTH 0 FLAMMABILITY 0 REACTIVITY 0

SECTION II - COMPOSITION

ALUMINUM OXIDE 98.6 to 99.9 %

OSHA PEL: 15 mg/m3 (Total) 5 mg/m3 (Respirable) ACGIN TLV: 10 mg/m3 (Totat-TWA)

SECTION III - HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW:

NON-FLAMMABLE, NON-CORROSIVE, NO ODOR; NOT AN EXPLOSION HAZARD. DUST CAN CAUSE MILD IRRITATION TO EYES, SKIN, AND UPPER RESPIRATORY TRACT. WHITE, ODORLESS CRYSTALLINE POWDER, GRANULES, OR BALLS. POTENTIAL HEALTH EFFECTS: EYES - CAN CAUSE MILD IRRITATION, ESPECIALLY WHEN WET. SKIN - CAN CAUSE MILD IRRITATION. INGESTION - CAN CAUSE MILD IRRITATION. INHALATION -CAN CAUSE MILD RESPIRATORY TRACT IRRITATION. ALUMINA IS A LOW HEALTH RISK BY INHALATION AND SHOULD BE TREATED AS A NUISANCE DUST AS SPECIFIED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH). THIS PRODUCT MAY CONTAIN SILICATES AT <1%. BY WEIGHT. SILICATES INCLUDE METAL SILICATES, AMORPHOUS AND CRYSTALLINE SILICA. NO ANALYTICAL METHOD EXISTS TO DETECT AND DIFFERENTIATE BETWEEN AMORPHOUS AND CRYSTALLINE SILICA AND OTHER SILICATES AT <1%. BY WEIGHT. BASED ON THE CHEMISTRY OF BAUXITE DERIVED PRODUCTS, CRYSTALLINE SILICA IS NOT EXPECTED TO BE PRESENT IN THIS PRODUCT. MEDICAL CONDITIONS AGGREVATED BY EXPOSURE TO THE PRODUCT: ASTHMA, CHRONIC LUNG DISEASE, AND SKIN RASHES.

### SECTION IV - FIRST AID MEASURES

EYES: FLUSH EYES WITH PLENTY OF WATER OR SALINE FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN. SKIN: WASH WITH SOAP AND WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN IF IRRITATION PERSISTS. INHALATION: REMOVE TO FRESH AIR. CHECK FOR CLEAR AIRWAY, BREATHING, AND PRESENCE OF PULSE. PROVIDE CPR FOR PERSONS WITHOUT PULSE OR RESPIRATIONS. CONSULT A PHYSICIAN. INGESTION: IF SWALLOWED, DILUTE WITH LARGE AMOUNTS OF WATER. DO NOT INDUCE VOMITING. CONSULT A PHYSICIAN IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO A CONVULSING OR UNCONSCIOUS PERSON. SECTION V - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: NON-FLAMMABLE FLASH POINT – NONE FLAMMABLE LIMITS - NOT APPLICABLE AUTO-IGNITION TEMPERATURE - NOT APPLICABLE HAZARDOUS COMBUSTION PRODUCTS: NONE EXTINGUISHING MEDIA: USE EXTINGUISHING AGENT APPLICABLE TO SURROUNDING FIRE. FIRE FIGHTING INSTRUCTIONS: FIRE FIGHTERS SHOULD WEAR NIOSH APPROVED, POSITIVE PRESSURE, SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING WHEN APPROPRIATE.

SECTION VI - ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: CLEAN UP USING DRY PROCEDURES; AVOID DUSTING.

SECTION VII - HANDLING AND STORAGE

HANDLING: AVOID CONTACT WITH EYES AND SKIN. AVOID INHALING DUST. STORAGE: KEEP MATERIAL DRY.

SECTION VIII - EXPOSURE CONTROLS

ENGINEERING CONTROLS: USE WITH ADEQUATE VENTILATION TO MEET EXPOSURE LIMITS LISTED IN SECTION 11. RESPIRATORY PROTECTION: NIGSH APPROVED DUST RESPIRATOR IF OVEREXPOSURE POTENTIAL EXISTS. SKIN PROTECTION: WEAR APPROPRIATE GLOVES TO AVOID DIRECT SKIN CONTACT. EYE PROTECTION: SAFETY GLASSES RECOMMENDED TO AVOID DIRECT EYE CONTACT.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: WHITE, CRYSTALLINE POWDER, GRANULES, OR BALLS. BOILING POINT: NOT APPLICABLE. MELTING POINT: 3727°F (2053°C) VAPOR PRESSURE: NOT APPLICABLE VAPOR DENSITY: NOT APPLICABLE SOLUBILITY IN WATER: INSOLUBLE; SOLUBLE IN CONCENTRATED ACIDS AND ALKALIES. SPECIFIC GRAVITY: 3.6-3.9 pH: 9.0-10.0 (APPROX.) AT 33%. SOLIDS IN DEIONIZED WATER. ODOR: NONE ODOR THRESHOLD: NOT APPLICABLE COEFFICIENT OF WATER/OIL DISTRIBUTION: NOT APPLICABLE

SECTION X - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: A RISE IN TEMPERATURE MAY RESULT FROM CONTACT WITH WATER. INCOMPATIBILITY: NONE HAZARDOUS DECOMPOSITION PRODUCTS: NONE HAZARDOUS POLYMERIZATION: NONE

# SECTION XI - TOXICOLOGICAL INFORMATION

NO LD<sub>50</sub> OR LC<sub>50</sub> FOUND FOR ORAL, DERMAL OR INHALATION ROUTES OF ADMINISTRATION.

SECTION XII - ECOLOGICAL INFORMATION

WATER HAZARD CLASS: 0 (GERMAN REGULATION). (SELF-ASSESSMENT): GENERALLY NOT HAZARDOUS FOR WATER.

SECTION XIII - DISPOSAL CONSIDERATIONS

COLLECT IN CONTAINERS, BAGS, OR COVERED DUMPSTER BOXES. IF REUSE OR RECYCLING IS NOT POSSIBLE, MATERIAL MAY BE DISPOSED OF AT AN INDUSTRIAL LANDFILL. RCRA HAZARDOUS WASTE NUMBER: NOT FEDERALLY REGULATED.

### SECTION XIV - TRANSPORTATION INFORMATION

U.S. DOT: NOT REGULATED - ENTER THE PROPER FREIGHT CLASSIFICATION ON THE SHIPPING PAPERWORK, 'IMSDS NUMBER", AND "PRODUCT NAME" FOR SHIPPING PURPOSES. CANADIAN TDG HAZARD CLASS & PIN: NOT REGULATED.

SECTION XV - REGULATORY INFORMATION

TSCA STATUS: COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY. CERCLA REPORTABLE QUANTITY: NONE SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: NONE SECTION 311/312 HAZARDOUS CATAGORIES: IMMEDIATE (ACUTE), IF PARTICULATES ARE GENERATED DURING PROCESSING. SECTION 313 TOXIC CHEMICALS: NONE THIS MATERIAL DOES NOT CONTAIN NOR WAS IT MANUFACTURED USING OZONE DEPLETING CHEMICALS. (TITLE IV-CLEAN AIR ACT 1990). INTERNATIONAL REGULATIONS: CANADIAN DSL - COMPONENTS ARE LISTED. CANADIAN WHMIS - NOT A CONTROLLED SUBSTANCE. EUROPEAN COMMUNITY - LISTED ON ECOIN, THE EUROPEAN CORE INVENTORY. AUSTRALIA - ALL COMPONENTS LISTED ON AICS INVENTORY. MITI (JAPAN) - ALL COMPONENTS LISTED.

SECTION XVI - OTHER INFORMATION

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH AS AUTHORITATIVE AND VALID; HOWEVER, NO WARRANTY, EXPRESSED OR IMPLIED, CAN BE MADE.

Date Prepared: February 7, 2003 Prepared by: Ron Calabraro