MATERIAL SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

PRODUCT: Astro-Mulch

MANUFACTURER: Thermo-Kool of Alaska, Inc. TELEPHONE NUMBER: 907-376-3644

4191 E Dimond Way EMERGENCY TELEPHONE NUMBER: 907-440-9416

Wasilla Alaska 99654

MSDS DATE OF REVISION: 3/3/04

SECTION 2: PRODUCT COMPONENTS

COMPONENT	AMOUNT	CAS#	EXPOSURE LIMITS
Cellulose Material) (from recycled newsprint	99-100%	Mixture	PEL – 5 mg/m ³ TWA (respirable fraction) PEL – 15 mg/m ³ TWA (total dust) TLV- 10 mg/m ³ TWA

SECTION 3: HAZARDS IDENTIFICATION

This product is a green, fibrous material with no odor.

EMERGENCY OVERVIEW

High concentrations of dust in the air may present a fire and explosion hazard. May cause mechanical eye irritation. Inhalation of high concentrations of dust may cause mucous membrane and respiratory irritation. Prolonged overexposure to any respirable dust may cause effects on the lungs.

POTENTIAL HEALTH EFFECTS:

PRIMARY ROUTES OF EXPOSURE: Eye, inhalation

INGESTION: This product is not acutely toxic. Swallowing large amounts may cause nausea.

INHALATION: Inhalation of high concentrations of dust may cause mucous membrane and respiratory irritation with cough, sore throat, nasal congestion, sneezing and shortness of breath.

EYE: May cause mechanical eye irritation with redness, tearing and redness.

SKIN: No adverse effects expected from normal use conditions.

CHRONIC EFFECTS: Repeated inhalation of large amounts of respirable dust over an extended period of time may result adverse lung effects. Symptoms include coughing, shortness of breath, chest pain and reduced lung function.

CARCINOGENICITY: None of the components of this product are listed as a carcinogen or suspect carcinogen by IARC, NTP or OSHA.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing respiratory disorders or subject to eye irritation may be aggravated from exposure to dust.

SECTION 4: FIRST AID MEASURES

EYE: Immediately flush eyes with large amounts of water. Hold eyelids apart to ensure rinsing the entire surface of the eye with water. Avoid rubbing the eyes as this may result in further irritation. Get medical attention if irritation persists. SKIN: No first aid should be needed since this product does not affect the skin. Wash exposed skin with soap and water.

Astro-Mulch

MSDS Date of Revision: 3/3/04

INHALATION: Remove victim to fresh air. If breathing is difficult have qualified personnel administer oxygen. If symptoms

persist, get medical attention.

SECTION 5: FIRE AND EXPLOSION DATA

FLASH POINT: Not applicable FLAMMABILITY LIMITS: Not available

EXTINGUISHING MEDIA: This product is combustible. Use any water or any other media that is suitable for normal combustibles.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should use self-contained breathing apparatus and protective clothing for all fires involving chemicals.

UNUSUAL FIRE HAZARDS: High concentrations of dust in the air may present a fire or dust explosion hazard.

INGESTION: None required under normal conditions. Get medical attention if large amounts are swallowed.

COMBUSTION PRODUCTS: Oxides of carbon.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL: Wear appropriate personal protective equipment if exposure limit may be exceeded during cleanup. Eliminate open flames and other possible sources of ignition. Collect in a manner that minimizes the generation of airborne dusts and place in appropriate container for use or disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING: Avoid contact with eyes. Avoid breathing dust. Minimize generation of airborne dust during use. Use good housekeeping practices to minimize dust accumulation in enclosed workplaces.

STORAGE: No special storage required. Store as an ordinary combustible material (such as paper).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Avoid breathing dust. Use in adequately ventilated areas or outdoors to maintain exposure levels below applicable limits.

RESPIRATORY PROTECTION: For operations where the exposure limit may be exceeded, an approved particulate respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus. SKIN PROTECTION: None required under normal use. If dusty conditions exist, wear long sleeved shirt and pants. EYE PROTECTION: None required under normal use. If dusty conditions exist, wear safety glasses with sideshields or goggles.

OTHER PROTECTIVE EQUIPMENT: As appropriate for the work environment. Dusty clothing should be laundered before reuse.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Green, fibrous material with no odor.

pH: Not applicable

BOILING POINT: Not applicable SPECIFIC GRAVITY: Not available

MELTING POINT: Not applicable WATER SOLUBILITY: Negligible

VAPOR PRESSURE: Not applicable VAPOR DENSITY: Not applicable

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY/CONDITIONS TO AVOID: Avoid contact with oxidizing agents, acids and bases. Keep product away

from open flames and other possible sources of ignition.

HAZARDOUS POLYMERIZATION: Will not occur.

Astro-Mulch MSDS Date of Revision: 3/3/04

HAZARDOUS DECOMPOSITION: Oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

Cellulose Material: No data available

SECTION 12: ECOLOGICAL INFORMATION

No ecotoxicity data is available. This product is not expected to present an environmental hazard.

SECTION 13: DISPOSAL INFORMATION

Dispose in accordance with local, state and federal regulations.

SECTION 14: TRANSPORT INFORMATION

DOT HAZARD CLASSIFICATION: Not Regulated.

SECTION 15: REGULATORY INFORMATION

EPA SARA 311 HAZARD CLASSIFICATION: Not hazardous

HAZARDOUS SUBSTANCE (40CFR 116) CERCLA: Not Applicable

REPORTABLE QUANTITY: Not Applicable

SECTION 16: OTHER INFORMATION