SECTION 1 - IDENTIFICATION

PRODUCT (TRADE) NAME: NEXTEL (TM) 312, Ceramic Fiber with 170 Sizing

CHEMICAL FAMILY: --

DATE PREPARED: November 30, 1993
SUPERSEDES: February 26, 1993

SUPPLIER: OMEGA ENGINEERING, INC.
P.O. BOX 4047
STAMFORD, CT 06907

TELEPHONE: (203) 359-1660

SHIPPING NAME (UN NUMBER PER TRANSPORTATION AUTHORITY)
DOT: N/A

EMERGENCY RESPONSE TELEPHONE NUMBERS:
(800) 255-3924 (813) 979-0626

SECTION 2 - HAZARDOUS INGREDIENTS

INGREDIENT C.A.S NO. PERCENT

Aluminaborosilicate Fibers 12788-79-3 97.0 - 99.0

*Hydroxy Ethylated Polyethyleneimine 26658-46-8 0.5 - 3.0

*Polyethylene Glycol 25322-68-3 < 0.5

* Note: Unless product is marked "Heat-Treated" or "Heat-Cleaned"

SECTION 3 - PHYSICAL DATA

BOILING POINT: N/A
VAPOR PRESSURE: N/A
VAPOR DENSITY: N/A
EVAPORATION RATE: N/A
SOLUBILITY IN WATER: 1-3% by weight
SPECIFIC GRAVITY: 2.7
PERCENT VOLATILE: 1-3% by weight
VOLATILE ORGANICS: N/D
VOC LESS H2O AND EXEMPT SOLVENT: N/D
pH: N/A
VISCOSITY: Solid
MELTING POINT: > 1800 degrees C

APPEARANCE AND ODO: Coarse fibers (greater than 5 um in diameter), shiny thread or yarn, white.

SECTION 4 - FIRE AND EXPLOSION HAZARD

FLASH POINT: N/A
FLAMMABLE LIMITS - LEL: N/A
FLAMMABLE LIMITS - UEL: N/A
AUTOIGNITION TEMPERATURE: N/D
EXTinguISHING MEDIA: N/A

SPECIAL FIRE FIGHTING PROCEDURES: None known

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

NFPA-HAZARD-CODES: HEALTH: 0 FIRE: 1 REACTIVITY: 0
UNUSUAL REACTION HAZARD: None

SECTION 5 - REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY MATERIALS TO AVOID: None known
HAZARDOUS POLYMERIZATION: Will not occur

HAZARDOUS DECOMPOSITION PRODUCTS: Small amounts of carbon monoxide, and trace amounts of hydrogen cyanide, acrylonitrile and dimethyl formamide are produced upon initial heating. These decomposition products are not expected to exceed exposure limits during recommended use procedures.

SECTION 6 - ENVIRONMENTAL INFORMATION

SPILL RESPONSE: Conserve precautions from other sections. Vacuum, use wet sweeping compound or water to avoid dusting. CAUTION! A vacuum cleaner could be an ignition source. Place in an approved metal container and seal.

RECOMMENDED DISPOSAL: Dispose of waste product in a sanitary landfill. Reclaim if feasible.

ENVIRONMENTAL DATA: Not determined
REGULATORY INFORMATION: U.S. EPA Hazardous Waste Number = None (Not U.S EPA Hazardous). Since regulations vary, consult applicable regulations or authorities before disposal.

SARA HAZARD CLASS:
FIRE HAZARD: No  PRESSURE: No  REACTIVITY: No
ACUTE: Yes  CHRONIC: No

SECTION 7 - SUGGESTED FIRST AID

EYE CONTACT: Immediately flush eyes with large amounts of water. Get immediate medical attention.

SKIN CONTACT: Flush skin with large amounts of water. If irritation persists, get medical attention.

INHALATION: If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.

IF SWALLOWED: No need for first aid is anticipated.

SECTION 8 - PRECAUTIONARY INFORMATION

EYE PROTECTION: Avoid eye contact. Wear safety glasses with side shields.

SKIN PROTECTION: Avoid prolonged or repeated skin contact. Wear appropriate gloves when handling this material. Use one or more of the following personal protection items as necessary to prevent skin contact: coveralls.

VENTILATION PROTECTION: Provide appropriate local exhaust when product is heated. Use in a well-ventilated area. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION: Avoid breathing of airborne material. Avoid breathing of thermal decomposition products. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half-mask dust respirator, full-face dust respirator.

PREVENTION OF ACCIDENTAL INGESTION: Do not ingest.

RECOMMENDED STORAGE: Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE: Not applicable.
EXPOSURE LIMITS:

INGREDIENTS | VALUE | UNIT | TYPE | AUTH | SKIN**
--- | --- | --- | --- | --- | ---
Aluminoborosilicate fibers | 0.2 | fppc | TWA | OSHA | REFRACTORY CERAMIC FIBERS

*Hydroxy Ethylated Polyethylenelmine | none | none | none | none | none
*Polyethylene glycol | none | none | none | none | none

* Note: Unless product is market "Heat-Treated" or "Heat-Cleaned"

**Skin Notation: Listed substances indicated with "Y" under SKIN refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:
- OSHA: Occupational Safety and Health Administration
- NONE: None established

SECTION 9 - HEALTH HAZARD DATA

EYE CONTACT: Mechanical eye irritation: signs/symptoms can include irritation, redness, scratching of the cornea and tearing.

SKIN CONTACT: Mechanical skin irritation: signs/symptoms can include itching and redness.

INHALATION: Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

IF SWALLOWED: Ingestion is not a likely route of exposure to this product.

Irritation of Gastrointestinal Tissues: signs/symptoms can include pain, vomiting, abdominal tenderness, nausea, blood in vomitus, and blood in feces.

CANCER:

ACRYLONITRILE (107-13-1) is a potential cancer hazard causing various tumors by the dietary, drinking water and inhalation routes of exposure in laboratory animal studies. Some limited evidence exists that excessive exposure has caused lung, gastro-intestinal, prostate and brain cancer in humans (NTP anticipated human carcinogen, IARC probable human carcinogen 2A, OSHA listed carcinogen, ACGIH suspected human carcinogen A2, Calif. Proposition 65).
CERAMIC FIBERS are a potential cancer hazard causing lung and injection site tumors by the inhalation, intratracheal, intrapleural and intraperitoneal routes of exposure in laboratory animal studies. Major determinants of carcinogenic potential are the biological fiber life, size ratio 3:1 and dose to the target organ (IARC possible human carcinogen 2B, Calif. Proposition 65).

OTHER HEALTH HAZARD INFORMATION: Due to their large size (7-13 microns in diameter), these Nextel (TM) Ceramic Fibers are considered non-respirable and therefore are not expected to pose a cancer risk.

Acrylonitrile is not an ingredient of the product, by a potential decomposition product produced in trace quantities upon heating of the sizing.

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