

Weifang Lakeland Safety Products Co. Ltd.
Material Data Safety Sheet

Spunbonded Polypropylene
Products (ZONEGUARD®)

May 1, 1999

Human - Spunbonded Polypropylene worn for 72 hours produces no skin redness or swelling or skin sensitization. Lakeland has sold ZONEGUARD® fabrics as protective clothing primarily in the asbestos remediation field since 1994 without any dermatological reactions by human contact for extended exposure periods.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

Mechanical irritation - remove particle. Seek medical help if irritation persists.

FIRE FIGHTING MEASURES

Flammable Properties

Products made from ZONEGUARD® are not intended for use in fire-retardant garments. Fabrics of ZONEGUARD® should not be used near heat, flame, sparks nor in explosive environments.

ZONEGUARD® fabric does not pass DOC FF 3017, "Children's Sleepwear Test" and does not pass NFPA 701.

Gases/vapors produced in fire from complete combustion of ZONEGUARD® are CO² and water. Incomplete combustion yields hazardous gases/vapors including CO, acrolein, other aldehydes, ketones, fatty acids and shortchain hydrocarbons.

Static Discharge

ZONEGUARD® styles can build a static charge during roll or sheet handling operations and care should be used when handling in areas where potential for flammable or explosive vapor/air mixtures exist. In low humidity conditions, all styles of ZONEGUARD®, whether they contain an anti-static coating or not, can build a static charge.

ZONEGUARD® Products**Lakeland Material Safety Data Sheet****May 1, 1999****Extinguishing Media**Water, Dry Chemical, CO²**Exposure Guidelines**

Applicable Exposure Limits Polypropylene
PEL (OSHA) : None Established
TLV (ACGIH) : None Established
AEL : 10 mg/m³, 8 Hr. TWA, total dust
: 5 mg/m³, 8 Hr. TWA, respirable dust

*AEL is Lakeland's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data:

Melting Point : 110-140°C (230-284°F) @ mm HG
% Volatiles : <0.1 wt% @ 25°C (77°F)
Solubility in Water : Insoluble
Odor : Odorless
Form : Sheets or Rolls
Color : White
Specific Gravity : 0.95-1.00 g/cc

STABILITY AND REACTIVITY

Chemical Stability

Stable

Aromatic hydrocarbons, gasoline, lubricating oils, and halogenated hydrocarbons may soften and swell ZONEGUARD®.

Incompatibility with Other Materials

Products made from ZONEGUARD® should not be stored in contact with strong oxidizing agents, especially at elevated temperatures as is the case for most polymers.

