

NISSHO CORPORATION

Material Safety Data Sheet

Section I

Product and Company Identification

Product Name or Number: Z CLEAN™ E3001

Manufacturer's Name: Nissho Corporation

Emergency Telephone No: +81-3-5294-1300 (call collect)

Product and MSDS Information Telephone No. : +81-3-5294-1300 / Facsimile No. : +81-3-5294-1350

Address: Sudacho-Sashita Bldg., 2-5-2 Kandasudacho, Chiyoda-ku, Tokyo 101-0041, Japan

Hazardous Materials Description (49 CFR 172.101): None

Proper Shipping Name: Z CLEAN™

Chemical Family: Polyethylene Compound

Formula: Polymer of C₂H₄ and C₄H₈

Section II

Ingredients (list all ingredients)

Polyethylene and Surfactant

This product is not formulated to contain ingredients, which have exposure limits established, by regulatory agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives.

Section III

Physical Data

Boiling Point: NA

Specific Gravity (H₂O=1): 1.05

Melting Point: 126 degree C (259 F)

Freezing Point: NE

Vapor Pressure (mm Hg): NA

Percent Volatile by Volume (%): NA

Vapor Density (Air=1): NA

Evaporation Rate (Air=1): NA

Solubility in Water: Negligible

pH = NA

Appearance and Odor: Solid pellet and no odor

NA = Not Applicable

NE = Not Established

For further technical information, contact your marketing representative or agent.

Section IV

Fire and Explosion Hazard Data

Flash Point (ASTM D1929): > 350 degree C (> 662 F)

Flammable Limits: (LEL) NA / (UEL) NA

Extinguishing media: CO₂, foam, dry chemical and water fog

Special Fire Fighting Procedures: Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

Unusual Fire and Explosion Hazards: Air conveying (movement) of this product may cause excessive dusting, which could form explosive dust-air mixtures. Exposure to fire can generate toxic fumes.

Special Protective Equipment: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

NFPA Hazard ID: Health=1, Flammability=1, Reactivity=0

Section V

Health Hazard Data

Effects of Overexposure: Inhalation of fines, if any, can cause irritation of nose and throat. Pellets and fines, if any, may cause abrasive injury and irritation to eyes. Contact with hot material may cause skin burns.

Emergency and First Aid Procedures: See Section VIII

Threshold Limit Value: NA

Permissible Exposure Limit: NA

FDA Compliance (21 CFR 177.1520): Not comply

Section VI

Reactivity Data

Stability (Thermal, Light, etc.): Stable

Conditions to Avoid: Extreme heat

Incompatibility (Materials to Avoid): Strong oxidizers

Hazardous Decomposition Products: None

Hazardous Polymerization: Will not occur.

Section VII

Spill or Leak Procedures

Steps to be taken in case material is released or spilled: Sweep or collect into containers or bags.

Waste Disposal Method: Confirm with applicable disposal regulations and suggest burning in an approved incinerator or bury in an approved landfill.

Section VIII

Handling and Storage

Handling: A static electrical charge can potentially build up when handling this material. Static discharge could pose a dust explosion hazard. All equipment should be grounded and bonded to prevent possible dust explosions.

Storage: Store in cool area and not store near strong oxidizers.

Section IX

Special Protection Information

Respiratory Protection: Approved dust respirators must be used for dusty conditions or if dust levels exceed established standards. Use approved respiratory protective equipment in thermo processing operation if ventilation is inadequate.

No special requirements under ordinary conditions of use and with adequate ventilation.

Ventilation: Ventilation desirable and equipment should be explosion proof. Use with adequate ventilation in thermo processing operations.

Eye Contact: Flush thoroughly with water. If irritation occurs, call a physician.

Eye Protection: Where dusting potential exists, goggles should be worn. When handling molten material, goggles and/or face shield should be worn. Use appropriate eye protection in thermo processing operations if ventilation is inadequate.

Skin Contact: If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn.

Skin Protection: Gloves are required to handle hot materials.

Inhalation: Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance and call a physician.

If breathing has stopped, use mouth-to-mouth resuscitation.

Ingestion: Not expected to be a problem when ingested. If uncomfortable seek medical assistance.

Other Protective Equipment: Not needed

Environmental Fate and Effects: NE

Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; the user therefore assumes all risks of use of the product and **we expressly disclaim all warranties of every kind and nature, including warranty of merchantability and fitness for a particular purpose in respect to the use of suitability of the product.** Nothing is intended as a recommendation for uses, which infringe valid patents, or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.

Approval Date: August 12, 2003

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