

**ZYTEL® 70G13HS1L BK031 nylon resin**

Version 4.0

Revision Date 03/20/2014

Ref. 130000022542

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ZYTEL® 70G13HS1L BK031 nylon resin
MSDS Number : 130000022542

Manufacturer : DuPont
1007 Market Street
Wilmington, DE 19898

Product Information : +1-800-441-7515 (outside the U.S. +1-302-774-1000)
Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)
Transport Emergency : CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION

Potential Health Effects

Exposure to dusts or the thermal decomposition products of this compound from heating may cause eye irritation with discomfort, tearing, or blurring of vision; or irritation of the upper respiratory passages, with coughing and discomfort.

Ingestion is not a likely route of exposure.

Following is known regulatory classification information on isolated substances.

Skin

Fiberglass : May cause skin irritation. Discomfort, itching, redness, or swelling.

Eyes

Fiberglass : May cause eye irritation. Tearing, redness, or discomfort.

Carcinogenicity

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

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS


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Component	CAS-No.	Concentration
Polyhexamethylenediamine adipate	32131-17-2	>75%
Fiberglass	65997-17-3	<20 %
Colorants, Lubricants, Stabilizers		<3 %

Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled.

SECTION 4. FIRST AID MEASURES

- Skin contact : The material is not likely to be hazardous by skin contact, but cleaning the skin after use is advisable. Cool skin rapidly with cold water after contact with molten material. Do not peel polymer from the skin. Obtain medical treatment for thermal burn.
- Eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
- Inhalation : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
- Ingestion : No specific intervention is indicated. Consult a physician if necessary.

SECTION 5. FIREFIGHTING MEASURES

- Flammable Properties
- Flash point : not applicable



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- Fire and Explosion Hazard : Combustible . Large molten masses may ignite spontaneously in air. Water quenching is good practice. Minimize the generation and accumulation of dust. Failure or malfunction of temperature control systems on processing equipment, such as extruders, may create explosion hazards.

- Hazardous combustion products : (see also section 10), Carbon monoxide, Carbon dioxide.

- Suitable extinguishing media : Water, Foam, Dry chemical, Carbon dioxide (CO2)

- Firefighting Instructions : Wear self-contained breathing apparatus and protective suit. Evacuate personnel and keep upwind of fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- Safeguards (Personnel) : Spilled material is a slipping hazard.

- Spill Cleanup : Sweep up to prevent slipping hazard.

- Accidental Release Measures : Do not discharge to streams, ponds, lakes or sewers.

SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : Open container only in well-ventilated area. Wash hands thoroughly after handling. Minimize the generation and accumulation of dust. Do not breathe dust. Provide appropriate exhaust ventilation at dryers, machinery and at places where dust or volatiles can be generated.

- Storage : Store in a cool, dry place. Keep container closed to prevent contamination. Keep in an area equipped with sprinklers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : General mechanical ventilation is normally adequate but use local exhaust



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where necessary to maintain exposures below acceptable limits. Use local exhaust to completely remove vapors and fumes liberated during hot processing from the work area. See Bulletin "Proper Use of Local Exhaust Ventilation During Processing of Plastics".

Personal protective equipment

Respiratory protection : A respiratory protection program that meets country requirements must be followed whenever workplace conditions warrant respirator use. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer. Consult the OSHA respiratory protection information located at 29CFR 1910.134. Use a positive pressure air supplied respirator if exposure levels are not known or there are any other circumstances where air purifying respirators may not provide adequate protection.

Hand protection : Additional protection: Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding.

Hand protection : Additional protection: When handling hot material, use heat resistant gloves.

Eye protection : Wear safety glasses with side shields. Wear tightly fitting chemical splash goggles and face shield when possibility exists for eye and face contact due to spattering or splashing of molten material. A full-face mask respirator provides protection from eye irritation.

Skin and body protection : If there is a potential for contact with hot/molten material wear heat resistant clothing and footwear.

Exposure Guidelines

Exposure Limit Values

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Dust (inhalable and respirable fraction)

TLV	(ACGIH)	10 mg/m3
		TWA Inhalable particles.
		3 mg/m3
		TWA Respirable particles.
PEL:	(OSHA)	5 mg/m3
		TWA Respirable fraction.
		15 mg/m3
		TWA Total dust.

Fiberglass


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TLV	(ACGIH)	5 mg/m3	TWA Inhalable fraction.
AEL *	(DUPONT)	2 fibers/cm3	8 & 12 hr. TWA Respirable fibers.
AEL *	(DUPONT)	5 mg/m3	8 & 12 hr. TWA Non-fibrous particulate and/or non-respirable fibres.

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: pellets
Color	: black
Odor	: none
Melting point/range	: > 200 °C (> 392 °F)
Specific gravity	: > 1
Water solubility	: insoluble

SECTION 10. STABILITY AND REACTIVITY

Stability	: Stable at normal temperatures and storage conditions.
Conditions to avoid	: Temperature > 340 °C (> 644 °F) Avoid prolonged exposure at or above the recommended processing temperatures.
Incompatibility	: Strong acids Strong bases, Strong oxidizing agents
Hazardous decomposition products	: Hazardous thermal decomposition products may include:, Aldehydes, Nitrogen oxides (NOx), Ammonia, traces of hydrogen cyanide Carbon monoxide , Carbon dioxide, Cyclopentanone, Aniline, Benzene, Diphenylamine
Hazardous reactions	: Polymerization will not occur.


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SECTION 11. TOXICOLOGICAL INFORMATION
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Further information : No data is available on the product itself. For additional toxicity data, write to the company address or call the non-emergency number shown in Section 1.

Polyhexamethylenediamine adipate

Oral LD50 : > 7,500 mg/kg , rat

Skin irritation : human
non-irritant

Skin sensitization : human
Not a skin sensitizer.

Fiberglass

Skin irritation : No skin irritation, rabbit

Eye irritation : No eye irritation, human

Repeated dose toxicity : Inhalation
rat

No toxicologically significant effects were found.

Carcinogenicity : Not classifiable as a human carcinogen.
Overall weight of evidence indicates that the substance is not carcinogenic.

SECTION 12. ECOLOGICAL INFORMATION
Aquatic Toxicity
Polyhexamethylenediamine adipate

: The substance is a polymer and is not expected to produce toxic effects.

Fiberglass

96 h LC50 : Danio rerio (zebra fish) > 1,000 mg/l OECD Test Guideline 203
Information given is based on data obtained from similar substances.


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72 h ErC50	:	Pseudokirchneriella subcapitata (green algae) > 1,000 mg/l OECD Test Guideline 201
72 h NOEC	:	Pseudokirchneriella subcapitata (green algae) > 1,000 mg/l OECD Test Guideline 201
48 h EC50	:	Daphnia magna (Water flea) > 1,000 mg/l OECD Test Guideline 202

Environmental Fate

Fiberglass

Biodegradability : Biodegradable
not applicable

Additional ecological information : No data is available on the product itself. Toxicity is expected to be low based on insolubility in water.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal : Preferred options for disposal are recycling or incineration with energy recovery. The high fuel value of this product makes incineration very desirable for material that cannot be recycled. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA (US) Status : In compliance with TSCA Inventory requirements for commercial purposes.

SARA 313 Regulated Chemical(s) : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels



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established by SARA Title III, Section 313.

California Prop. 65 : WARNING! This product contains a chemical or chemicals known to the State of California to cause cancer.

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

PA Right to Know : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances):
Regulated Chemical(s) : None known.

NJ Right to Know : Substances on the New Jersey Workplace Hazardous Substance List present
Regulated Chemical(s) : at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): None known.

SECTION 16. OTHER INFORMATION

Restrictions for use : Do not use DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative. You may also request a copy of the DuPont POLICY Regarding Medical Applications and DuPont CAUTION Regarding Medical Applications.

Zytel® is a registered trademark of DuPont.

The DuPont Oval Logo is a registered trademark of E.I. du Pont de Nemours and Company. Read the product information datasheet for this product or the molding guide for this resin family.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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