



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name POLYESTER FIBER (STAPLE AND YARN)
Version # 02
Revision date 28-Jun-2007
Company information INVISTA S.à r.l.
INVISTA Building
4123 East 37th Street North
Wichita, KS 67220
Emergency Transport Emergency CHEMTREC 1-800-424-9300
Emergency outside U.S. 1-703-527-3887
Medical Emergency 1-613-348-3616
General information Product Information 1-877-446-8478
Information outside U.S. 1-770-792-4221

2. Composition / Information on Ingredients

Components	CAS #	Concentration
POLYETHYLENE TEREPHTHALATE	POLYMER	90 - 99.9 %
TITANIUM DIOXIDE	13463-67-7	< 5 %
CARBON BLACK	1333-86-4	0 - 3 %
FIBER LUBRICANTS	PROPRIETARY	0.02 - 2 %

Composition comments

One or more of the ingredients have been claimed as trade secret under the OSHA Hazard Communication Standard. The hazards of this (these) ingredient(s), if any, are given on this MSDS. Molten polymer or prolonged air drying of polymer at temperatures above 195 °C will release small quantities of acetaldehyde (CAS# 75-07-0). May have been produced with Carbon Black. Carbon Black is not water soluble and is encapsulated. It is not extracted or released in normal processing. Therefore Carbon Black in this material does not present a hazard in normal handling, processing use and disposal. May have been produced with Titanium Dioxide. Titanium Dioxide is not water soluble and is encapsulated. It is not extracted or released in normal processing. Therefore Titanium Dioxide in this material does not present a hazard in normal handling, processing use and disposal.

3. Hazards Identification

Emergency overview

Low hazard for usual industrial or commercial handling.

When the fiber products are cut, chopped, or manipulated in other similar handling methods, some dust may be produced.

General hazard information

This fiber may have been produced using lubricants, additives and/or finishes. If this fiber contains any of these materials in an amount that may present a hazard, or requires additional precautions during normal handling and use, additional information has been included in the appropriate section in this MSDS.

This fiber may have been produced with carbon black and/or titanium dioxide. These compounds, as present in this material, are not water soluble and are encapsulated in the polymer. They are not extracted or released in normal processing and handling. Therefore these compounds are not expected to present a hazard in normal handling, processing, use and disposal.

OSHA regulatory status

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information for the safe handling and proper use of the product.

Potential health effects

Eyes

Fiber particles and dusts may be mechanically irritating when in contact with eyes. Symptoms include itching, burning, redness and tearing.

Skin

Not expected to be a primary skin irritant.

Fiber particles and dusts may be mechanically irritating to skin. While irritation is not expected under normal use, prolonged exposure and continuous rubbing of fiber particles on skin may produce skin irritation. Symptoms of mechanical irritation may include redness and/or itching.

Inhalation

Health injuries are not known or expected under normal use.

Ingestion

Not a likely route of entry. Ingestion of large amounts of fibers may cause gastrointestinal blockage which can cause stomach distress.

4. First Aid Measures

First aid procedures

Eye contact

Flush eyes with water as a precaution. If irritation persists get medical attention.

Skin contact

Product is not expected to be hazardous by skin contact. Should irritation occur rinse with water.

Inhalation

No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

Ingestion

If swallowed, do NOT induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Consult a physician if necessary.

Notes to physician

Treat symptomatically.

5. Fire Fighting Measures

Flammable properties

May burn, but does not ignite readily.

Extinguishing media

Suitable extinguishing media

Dry chemical, CO₂, water spray or regular foam.

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

Protection of firefighters

Protective equipment and precautions for firefighters

Firefighters should wear full protective clothing including self contained breathing apparatus.

Hazardous combustion products

Irritating and toxic gases or fumes may be released during a fire. Carbon monoxide, carbon dioxide, various hydrocarbon fragments as well as thick smoke.

Flammability Not Determined

6. Accidental Release Measures

Methods for cleaning up

Sweep up or gather material and place in appropriate container.

7. Handling and Storage

Handling

Use care in handling/storage.

Storage

Keep away from heat, sparks, and flame.

Further information

When fiber products are cut, chopped, or manipulated in other similar handling methods, some dust may be produced. Use good housekeeping methods to keep accumulation of dust to a minimum.

8. Exposure Controls / Personal Protection

Exposure guidelines

Molten polymer or prolonged air drying of polymer at temperatures above 195 °C will release small quantities of acetaldehyde (CAS# 75-07-0).

NIOSH - Pocket Guide - IDLHs (Immediately Dangerous to Life or Health)

Acetaldehyde 75-07-0 2000 ppm IDLH

U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)

Acetaldehyde 75-07-0 200 ppm TWA; 360 mg/m³ TWA

U.S. - OSHA - Vacated PELs - TWAs

Acetaldehyde 75-07-0 100 ppm TWA; 180 mg/m³ TWA

ACGIH - Threshold Limits Values - Ceilings (TLV-C)

Acetaldehyde 75-07-0 25 ppm Ceiling

ACGIH - Threshold Limits Values - TLV Basis - Critical Effects

Acetaldehyde 75-07-0 eye and upper respiratory tract irritation

Engineering controls

Use local exhaust ventilation to keep formation of airborne dusts to a minimum when the fiber products are cut, chopped, or manipulated in other similar handling methods.

Personal protective equipment

Eye / face protection

When the fiber products are cut, chopped, or manipulated in other similar handling methods, it may be necessary to wear safety glasses with side shields.

Skin protection

Wear suitable protective clothing. When material is heated, wear gloves to protect against thermal burns.

Respiratory protection

When dusts or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them, appropriate respiratory protection must be provided.

General hygiene considerations

Use good industrial hygiene practices in handling this material. Wash hands before breaks and at the end of workday.

9. Physical & Chemical Properties

Form/Appearance	Material may be a filament yarn, staple or tow.
Color	Based on specification.
Odor	None.
Flammability	Not Determined
Melting point	482 - 572 °F (250 - 300 °C)
Odor threshold	Not Determined
Solubility (H₂O)	insoluble
VOC (Weight %)	0.5 % estimated

10. Chemical Stability & Reactivity Information

Chemical stability

Stable, however, may decompose if heated.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

This product may react with strong oxidizing agents.

11. Toxicological Information

Toxicological information

Due to this material's high molecular weight, and results of toxicity studies of similar products, this material is considered to be of little to no toxicological concern.

This fiber may have been produced with carbon black and/or titanium dioxide. These compounds, as present in this material, are not water soluble and are encapsulated in the polymer. They are not extracted or released in normal processing and handling. Therefore these compounds are not expected to present a hazard in normal handling, processing, use and disposal.

Component analysis - LD50

Toxicology Data - Selected LD50s and LC50s

Acetaldehyde	75-07-0	Inhalation LC50 Rat: 13300 mg/kg/4H; Oral LD50 Rat: 661 mg/kg; Dermal LD50 Rabbit: 3540 mg/kg
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Carcinogenicity

Carbon Black (airborne particles of respirable size) is a listed carcinogen. Carbon Black used in production of this material is encapsulated and not believed to have the potential to become of respirable size. Titanium dioxide (airborne particles of respirable size) is a listed carcinogen by IARC (2B). Titanium dioxide used in products of this material is not believed to have the potential to become of respirable size.

NIOSH - Pocket Guide - Potential Occupational Carcinogens

Acetaldehyde	75-07-0	potential occupational carcinogen
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IARC - Group 2B (Possibly Carcinogenic to Humans)

Acetaldehyde	75-07-0	Monograph 71 [1999], Supplement 7 [1987], Monograph 36 [1985]
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ACGIH - Threshold Limits Values - Carcinogens

Acetaldehyde	75-07-0	A3 - Confirmed animal carcinogen with unknown relevance to humans
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NTP (National Toxicology Program) - Report on Carcinogens - Reasonably Anticipated to be Human Carcinogens

Acetaldehyde	75-07-0	Reasonably Anticipated To Be A Carcinogen
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U.S. - OSHA - Hazard Communication Carcinogens

Acetaldehyde	75-07-0	Present
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Skin contact

Similar products produced no irritation or sensitization in skin tests on human subjects.

12. Ecological Information

Ecotoxicity

This product is not expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems. Based on similar substances, this material is expected to be essentially non-biodegradable.

Environmental effects

Based on the physical properties of this product, significant environmental persistence and bioaccumulation would not be expected.

Ecotoxicity - Freshwater Fish Species Data

Acetaldehyde	75-07-0	96 Hr LC50 Pimephales promelas: 30.8 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 53 mg/L [static]
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Ecotoxicity - Microtox Data

Acetaldehyde	75-07-0	5 min EC50 Photobacterium phosphoreum: 280.6 mg/L; 15 min EC50 Photobacterium phosphoreum: 280.6 mg/L; 25 min EC50 Photobacterium phosphoreum: 280.6 mg/L
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Ecotoxicity - Water Flea Data

Acetaldehyde	75-07-0	48 Hr EC50 water flea: 9000 mg/L; 48 Hr EC50 Daphnia magna: 48.3 mg/L
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Ecotoxicity - Freshwater Algae Data

Acetaldehyde	75-07-0	120 Hr EC50 Nitzschia linearis: 237-249 mg/L
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13. Disposal Considerations

Disposal instructions

Dispose in accordance with all applicable regulations.

14. Transport Information

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

General

Not regulated as dangerous goods.

15. Regulatory Information

United States Regulations

Federal Regulations

Product, as supplied, is an article under TSCA.

This fiber may have been produced with carbon black and/or titanium dioxide. These compounds, as present in this material, are not water soluble and are encapsulated in the polymer. They are not extracted or released in normal processing and handling. Therefore these compounds are not expected to present a hazard in normal handling, processing, use and disposal.

NTP (National Toxicology Program) - Report on Carcinogens - Reasonably Anticipated to be Human Carcinogens

Acetaldehyde 75-07-0 Reasonably Anticipated To Be A Carcinogen

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Acetaldehyde 75-07-0 0.1 % de minimis concentration

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Acetaldehyde 75-07-0 2500 lb TQ

State Regulations

U.S. - New Jersey - Right to Know Hazardous Substance List

Acetaldehyde 75-07-0 sn 0001

U.S. - Pennsylvania - RTK (Right to Know) List

Acetaldehyde 75-07-0 Environmental hazard

U.S. - Massachusetts - Right To Know List

Acetaldehyde 75-07-0 Carcinogen; Extraordinarily hazardous

U.S. - California - Proposition 65 - Carcinogens List

Acetaldehyde 75-07-0 carcinogen, initial date 4/1/88

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - No
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance
No

International Regulations

As an article the product does not need to be labelled in accordance with EC-directives or respective national laws.

IARC - Group 2B (Possibly Carcinogenic to Humans)

Acetaldehyde 75-07-0 Monograph 71 [1999], Supplement 7 [1987], Monograph 36 [1985]

16. Other Information

HMIS ratings

Health: 0
Flammability: 1
Physical hazard: 0

NFPA ratings

Health: 0
Flammability: 1
Instability: 0

Disclaimer

This Material Safety Data Sheet ("MSDS") contains selected information about a specific INVISTA product or group of products. It relates only to the identified product and any identified uses and is based on information available as of the date hereof. Additional information may be needed to evaluate other uses of the product, including use of the product in combination with any materials or in any processes other than those specifically referenced. Information provided herein with respect to any hazards that may be associated with the product is not meant to suggest that use of the product in a given application will necessarily result in any exposure or risk to workers or the general public. THIS MSDS WAS PREPARED PURSUANT TO GOVERNMENT REGULATIONS THAT IDENTIFY SPECIFIC TYPES OF INFORMATION TO BE PROVIDED HEREIN. IT IS THEREFORE NOT INTENDED AS, AND DOES NOT CONTAIN, A COMPLETE STATEMENT OF, AND DOES NOT CONSTITUTE A REPRESENTATION, WARRANTY OR GUARANTY WITH REGARD TO, A PRODUCT'S CHARACTERISTICS, USES, QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR THE SUITABILITY, SAFETY, EFFICACY, HAZARDS OR HEALTH EFFECTS OF THE PRODUCT, WHETHER USED SINGULARLY OR IN COMBINATION WITH ANY OTHER PRODUCT, EXCEPT TO THE EXTENT REQUIRED BY THE RELEVANT LAW AND REGULATIONS. Purchasers and users of the product are responsible for determining that the product is suitable for the intended use and that their workers and the general public are advised of any risks resulting from such use. Nothing contained in this MSDS shall be construed to modify any of the commercial terms pursuant to which the product was sold by INVISTA including, but not limited to, terms and conditions addressing each party's respective rights and obligations with regard to warranties, remedies and indemnification.

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This disclaimer shall be effective to the extent allowed by law. Should any provision be deemed to be ineffective or unenforceable, that provision shall be deemed severed from the disclaimer and the remaining provisions shall continue to have full force and effect.

MSDS sections updated

This document has undergone significant changes and should be reviewed in its entirety.

Issue date

28-Jun-2007