



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont
Material Safety Data Sheet

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TYVEK(R) FLEXWRAP(TM) AND TYVEK(R) STRAIGHTFLASH(TM)
SP6070 Revised 31-MAY-2002

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont
1007 Market Street
Wilmington, DE 19898

PHONE NUMBERS

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

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
Proprietary Butyl Compound containing melamine cyanurate and aluminium hydroxide as fire retardents.		40-50
Polyethylene		18-22
Carbon Black	1333-86-4	<9
Calcium Carbonate		10-14
FLEXWRAP(TM) ONLY		
Proprietary Styrene Isoprene Styrene adhesive		4
Proprietary Polyurethane adhesive		1.5
Elastomeric Fibers		<5

HAZARDS IDENTIFICATION

Potential Health Effects

Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) may be categorized as essentially non-toxic. The nature of the product make either ingestion or inhalation highly improbable.

Eye contact will produce a mechanical irritation like any foreign object.

Skin contact should produce no skin irritation, swelling, or sensitization.

Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Material	IARC	NTP	OSHA	ACGIH
Carbon Black				2B

FIRST AID MEASURES

First Aid

First Aid - Eye Contact
Mechanical irritation - remove particle. Seek medical help if irritation persists.

FIRE FIGHTING MEASURES

Flammable Properties

Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) are combustible and should be protected from a flame and other high heat sources. Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) will not support combustion if the heat source is removed. However, if the temperature of either product reaches 700 F (300 C), they will burn and the ignited droplets may fall or be blown away from the ignition source which can cause fire to spread.

Extinguishing Media

Water, Dry Chemical, CO2.

Fire Fighting Instructions

Wear self-contained breathing apparatus.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

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

Spill Clean Up

N/A

HANDLING AND STORAGE

Handling (Personnel)

Avoid contact with eyes.

Tyvek(R) and the siliconized release liner are slippery materials. Remove the release liner from the work area immediately after applying Tyvek(R) FlexWrap(TM) and/or Tyvek(R) StraightFlash(TM). Do not leave these materials where they can be walked upon.

Handling (Physical Aspects)

Keep away from heat, sparks and flames.

In low humidity conditions, Tyvek(R) FlexWrap(TM) may build a static charge.

Storage

Do not store with strong oxidizing acids.

Keep from excessive heat and flames.

Do not expose to exhaust gases from internal combustion engines or heaters. Prolonged exposure will cause outer wrap and edges of Tyvek(R) to turn yellow or pink. Storage area should be ventilated.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment

Eye/Face	: None normally needed.
Respirator	: None normally needed.
Protective Gloves	: None normally needed.

Exposure Guidelines

Applicable Exposure Limits

Carbon Black
PEL (OSHA) : 3.5 mg/m³, 8 Hr. TWA
TLV (ACGIH) : 3.5 mg/m³, 8 Hr. TWA, A4
AEL * (DuPont) : 0.5 mg/m³, 8 & 12 Hr.TWA, (Polynuclear
Aromatic Hydrocarbon Content <0.1%)
Includes Channel, Lamp, and Thermal
Black

* 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.

Exposure Guideline Comments

Carbon Black is encapsulated in a polymer matrix and is not likely to be released in a particulate form under normal use.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Melting Point : 275 F (135 C) is the on set of melting
and 600 F (315 C) is full melt
Solubility in Water : Insoluble
Odor : slight petroleum
Form : Rolls
Color : White and Black
Specific Gravity : 1.05-1.10 g/cc

STABILITY AND REACTIVITY

Chemical Stability

Stable.

Aromatic hydrocarbons, gasoline, lubricating oils, halogenated hydrocarbons will soften and swell Tyvek(R) FlexWrap(TM) and/or Tyvek(R) StraightFlash(TM).

Incompatibility with Other Materials

Products made from Tyvek(R) should not be stored in contact with strong oxidizing agents, especially at elevated temperatures.

Decomposition

Incomplete combustion yields hazardous gases/vapors including CO, acrolein, other aldehydes, ketones, fatty acids, and short-chain hydrocarbons.

(STABILITY AND REACTIVITY - Continued)

Polymerization

Polymerization will not occur.

ECOLOGICAL INFORMATION

Ecotoxicological Information

Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) have not been tested for aquatic toxicity.

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

See Section on Regulatory Information under RCRA.

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO

Proper Shipping Name : DuPont Tyvek(R) FlexWrap(TM) or
DuPont Tyvek(R) StraightFlash(TM)

DOT : Not regulated material
Hazard Class : Not regulated material
I.D. NO. (UN/NA) : Not regulated material
DOT Label(s) : Not regulated material
Subsidiary Hazard Class : Not regulated material
Repotable quantity : Not regulated material

REGULATORY INFORMATION

U.S. Federal Regulations

Toxic Substance Control Act (TSCA):
Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) are considered "articles" under provisions of TSCA. All non-exempt chemical components are included in the TSCA inventory of chemical substances compiled by U.S. Environmental Protection Agency (EPA) as well as on the European chemical inventory (EINECS).

Occupational Safety & Health Act (OSHA):
Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) are

(REGULATORY INFORMATION - Continued)

considered non-hazardous materials provision of the Hazard Communication Standard (29 CFR 1910.1200). This MSDS is not required but is provided to Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) customers as a service.

Resource Conservation and Recovery Act (RCRA): Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) are not hazardous waste as defined by regulations implementing the Resource Conservation and Recovery Act (RCRA). Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) waste materials should be disposed compliance with Federal, State and Local regulations. Preferred options for disposal are (1) incineration with energy recovery, and (2) landfill. The high fuel value of this product makes option #1 very desirable.

Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) will not disperse in water. So, while disposed of with normal trash, it should never be put in with paper waste which will be repulped. Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) are not readily biodegradable and contain no significant percentage of material extractable in water so its effect on ground water in case of land-fill disposal should be negligible.

Comprehensive Environmental Response, Compensation and Liability Act (Superfund): The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) or "Superfund" levies a tax on hazardous waste materials expected to remain at a hazardous waste disposal facility after its closure (i.e., landfills). Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) are not regulated as hazardous waste and are not subject to this Superfund tax.

Emergency Planning & Community Right-To-Know Act (EPCRA): Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) contain no chemicals in concentration under Section 313 of EPCRA.

State Regulations (U.S.)

California Safe Drinking Water and Toxic Enforcement Act of 1986 (proposition 65): This product contains none of the substances known to the State of California to cause cancer or reproductive toxicity.

(REGULATORY INFORMATION - Continued)

Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) are subject to provisions of the Pennsylvania and New Jersey Right-To-Know laws.

Pennsylvania Right-To-Know:

Chemical Name	CAS Number
Polybutene	9003-29-6
Butyl Rubber	9010-85-9
Petroleum Hydrocarbon Resin	68132-00-3
Hydrogenated Hydrocarbon Resin	68441-35-0
Aluminum Silicate	68131-74-8

Pennsylvania Right-To-Know: Hazardous Substance List

Chemical Name	CAS Number
Industrial Tal	14807-96-6
Carbon Black	1333-86-4
Calcium Carbonate	1317-65-3

New Jersey Right-To-Know

Chemical Name	CAS Number
Aluminum Silicate	68131-74-8
Calcium Carbonate	1317-65-3
Polybutene	9003-29-6
Butyl Rubber	9010-85-9
Industrial tal	14807-96-6

Massachusetts Right-To-Know: Hazardous Ingredient List

Chemical Name	CAS Number
Industrial tal	14807-96-6
Carbon Black	1333-86-4
Calcium Carbonate	1317-65-3

OTHER INFORMATION

NFPA, NPCA-HMIS

NFPA Rating	
Health	: 0
Flammability	: 1
Reactivity	: 0

Personal Protection rating to be supplied by user depending on use conditions.

Additional Information

Packaging

Tyvek(R) FlexWrap(TM) and Tyvek(R) StraightFlash(TM) are packaged and shipped as single or multiple boxes of rolls on paper cores. Packaging materials are labeled with the style and roll identification numbers.

(Continued)

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : M. G. POWELL / C. P. MIHAL
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TYVEK(R), TYVEK(R)FC, TYVEK(R)QC AND
TYCHEM(R) are registered
DuPONT trademarks.
FlexWrap(TM) is a DuPont trademark.
StraightFlash(TM) is a DuPont trademark.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS