

## 1. Product and Company Identification

**Material name** TwistWrap 2401  
**Version #** 01  
**Issue date** 11-July-2013  
**Revision date** -  
**Supersedes date** -  
**CAS #** Mixture  
**Product use** Textile Sleaving.  
**Manufacturer/Supplier** Federal-Mogul World Headquarters  
 26555 Northwestern Highway  
 Southfield, Michigan 48033  
 USA  
 Contact Person: MSDS Request (voicemail) 1-248-354-9844

**Emergency** 24hr EP (INFOTRAC): 1-800-535-5053  
 International: (001) 352-323-3500  
 Non-emergency Telephone: 1-248-354-9844

## 2. Hazards Identification

**Physical state** Solid.  
**Appearance** Textile Sleaving.  
**Emergency overview** Under normal conditions of processing and use, exposure to the chemical constituents in this product is unlikely. Used as intended, this product is not expected to generate potentially hazardous quantities of dust or fumes.  
**OSHA regulatory status** This product is not hazardous according to OSHA 29CFR 1910.1200.  
**Potential health effects**  
     **Routes of exposure** Not relevant, due to the form of the product in its manufactured and shipped state.  
     **Eyes** No adverse effects due to eye contact are expected.  
     **Skin** No adverse effects due to skin contact are expected.  
     **Inhalation** No adverse effects due to inhalation are expected.  
     **Ingestion** Not relevant, due to the form of the product.  
**Chronic effects** Not relevant, due to the form of the product.  
**Signs and symptoms** Not relevant, due to the form of the product.  
**Potential environmental effects** Not relevant, due to the form of the product in its manufactured and shipped state.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
Carbon Black	1333-86-4	< 1.2

**Composition comments** This product does not generate dust when used as intended. Under normal processing conditions, carbon black is considered to be safe through encapsulation in the textile sleaving.

## 4. First Aid Measures

**First aid procedures**  
     **Eye contact** No specific first aid measures noted. However, immediately flush with plenty of water for at least 15 minutes.  
     **Skin contact** No adverse effects due to skin contact.  
     **Inhalation** No specific first aid measures noted.  
     **Ingestion** No adverse effects due to ingestion are expected.  
**Notes to physician** Treat symptomatically.

**General advice** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire Fighting Measures

**Flammable properties** This product is not flammable. Will burn if involved in a fire.

### Extinguishing media

**Suitable extinguishing media** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media** None.

### Protection of firefighters

**Specific hazards arising from the chemical** By heating and fire, toxic vapors/gases may be formed.

**Protective equipment and precautions for firefighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions** Use standard firefighting procedures and consider the hazards of other involved materials.

**Hazardous combustion products** Avoid exposing to temperatures greater than 300°C for prolonged periods of time. At this temperature, thermal decomposition starts to occur producing by-products such as carbon monoxide and trace amounts of esters, alcohols, acids and acetaldehyde.

## 6. Accidental Release Measures

**Personal precautions** Used as intended, this product is not expected to generate potentially hazardous quantities of dust or fumes. See Section 8 of the MSDS for Personal Protective Equipment.

**Environmental precautions** No special environmental precautions required.

**Methods for containment** Collect and dispose of spillage as indicated in Section 13 of the MSDS.

**Methods for cleaning up** No specific precautions.

## 7. Handling and Storage

**Handling** Normal handling and use of this product should not generate dust or fumes. The intended use of this product does not include its milling, grinding or saw cutting. Observe good industrial hygiene practices.

**Storage** Store at less than 40°C to avoid physical property changes.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Carbon Black (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable fraction.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Carbon Black (CAS 1333-86-4)	PEL	3.5 mg/m3

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Carbon Black (CAS 1333-86-4)	TWA	3.5 mg/m3

#### Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Carbon Black (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value
Carbon Black (CAS 1333-86-4)	TWA	3.5 mg/m3

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value
Carbon Black (CAS 1333-86-4)	TWA	3.5 mg/m3

**Mexico. Occupational Exposure Limit Values**

Components	Type	Value
Carbon Black (CAS 1333-86-4)	STEL	7 mg/m3
	TWA	3.5 mg/m3

**Engineering controls** Used as intended, this product is not expected to generate potentially hazardous quantities of dust or fumes. No special control measures are required for the normal handling and dispensing of this medication.

**Personal protective equipment**

**Eye / face protection** No special precautions.

**Skin protection** No skin protection is ordinarily required under normal conditions of use.

**Respiratory protection** No protection is ordinarily required under normal conditions of use and with adequate ventilation.

**General hygiene considerations** Wash hands after handling.

**9. Physical & Chemical Properties**

**Appearance** Textile Sleeveing.

**Physical state** Solid.

**Form** Solid.

**Color** Black.

**Odor** Odorless.

**Odor threshold** Not applicable.

**pH** Not applicable.

**Vapor pressure** Not applicable.

**Vapor density** Not applicable.

**Boiling point** Not applicable.

**Melting point/Freezing point** 482 - 491 °F (250 - 255 °C)

**Solubility (water)** Insoluble in water.

**Specific gravity** 1.38

**Flash point** 698.0 °F (370.0 °C)

**Flammability limits in air, upper, % by volume** Not available.

**Flammability limits in air, lower, % by volume** Not available.

**Auto-ignition temperature** 932 °F (500 °C)

**Viscosity** Not applicable.

**Other data**

**Explosive properties** Not applicable.

**Flammability (solid, gas)** Will burn if involved in a fire.

**Oxidizing properties** Not applicable.

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	No special precautions.
<b>Incompatible materials</b>	Strong acids. Alkalis.
<b>Hazardous decomposition products</b>	Avoid exposing to temperatures greater than 300°C for prolonged periods of time. At this temperature, thermal decomposition starts to occur producing by-products such as carbon monoxide and trace amounts of esters, alcohols, acids and acetaldehyde.
<b>Possibility of hazardous reactions</b>	Will not occur.

## 11. Toxicological Information

<b>Sensitization</b>	Not a skin sensitizer.
<b>Acute effects</b>	Used as intended, this product is not expected to generate potentially hazardous quantities of dust or fumes.
<b>Chronic effects</b>	Not relevant, due to the form of the product.
<b>Carcinogenicity</b>	Inhalation of black pigment dust may cause cancer, however due to the physical form of the product inhalation of dust is not relevant.

### ACGIH Carcinogens

Carbon Black (CAS 1333-86-4)

A3 Confirmed animal carcinogen with unknown relevance to humans.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon Black (CAS 1333-86-4)

2B Possibly carcinogenic to humans.

<b>Mutagenicity</b>	Not relevant, due to the form of the product.
<b>Reproductive effects</b>	Not relevant, due to the form of the product.
<b>Symptoms and target organs</b>	Not relevant, due to the form of the product.
<b>Further information</b>	Under normal processing conditions, carbon black is considered to be safe through encapsulation in the textile sleeving.

## 12. Ecological Information

<b>Ecotoxicity</b>	Not relevant, due to the form of the product in its manufactured and shipped state.
<b>Persistence and degradability</b>	Not relevant.
<b>Bioaccumulation / Accumulation</b>	Not relevant.
<b>Partition coefficient</b>	Not applicable.
<b>Mobility in environmental media</b>	Not relevant, due to the form of the product.

## 13. Disposal Considerations

<b>Disposal instructions</b>	Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.
<b>Waste from residues / unused products</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Contaminated packaging</b>	Since emptied containers retain product residue, follow label warnings even after container is emptied.

## 14. Transport Information

### DOT

Not regulated as a hazardous material by DOT.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### TDG

Not regulated as dangerous goods.

## 15. Regulatory Information

**US federal regulations** This product is not hazardous according to OSHA 29CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)**

None

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

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

**Section 302 extremely hazardous substance (40 CFR 355, Appendix A)** No

**SARA 311/312 Hazardous chemical** No

**Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)** Not controlled

**Canadian regulations** This product is not classified according to WHMIS classification criteria.

**WHMIS status** Non-controlled

## Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**State regulations** WARNING: This product contains chemical(s) known to the State of California to cause cancer.

**US - California Hazardous Substances (Director's): Listed substance**

Carbon Black (CAS 1333-86-4) Listed.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Carbon Black (CAS 1333-86-4) Listed.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

Carbon Black (CAS 1333-86-4) Listed: February 21, 2003 Carcinogenic.

**US - New Jersey RTK - Substances: Listed substance**

Carbon Black (CAS 1333-86-4) Listed.

**US. Massachusetts RTK - Substance List**

Carbon Black (CAS 1333-86-4) Listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**US. Pennsylvania RTK - Hazardous Substances**

Carbon Black (CAS 1333-86-4) Listed.

## 16. Other Information

**Further information** HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings** Health: 0  
Flammability: 1  
Physical hazard: 0

**NFPA ratings**

Health: 0  
Flammability: 1  
Instability: 0

**Disclaimer**

The information provided on this data sheet was abstracted from supplier material safety data sheets and standard references in occupational health and toxicology. Federal-Mogul makes no representation or warranty with respect to the information obtained from such references. The information is however, as of the date provided, true and accurate to the best of Federal-Mogul's knowledge, and should be used to make an independent determination of the methods to safeguard workers and the environment.