



# MATERIAL SAFETY DATA SHEET

## 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Expando HR Plus (Black)

**Manufacturer Name:**

Federal-Mogul World Headquarters  
26555 Northwestern Highway  
Southfield, Michigan 48033  
USA

**Emergency Telephone:**

24hr EP (INFOTRAC): 1-800-535-5053  
International: (001) 352-323-3500

**Non-emergency Telephone:**

1-248-354-9844

**Intended Use:** Protective Sleeving

**Contact Person:**

MSDS Request (voicemail) 1-248-354-9844

## 2 HAZARDS IDENTIFICATION

**Emergency Overview**

**Physical State:** Solid (Sleeve)

**Color:** Black

**Odor:** None

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.

**Potential Health Effects**

**Inhalation:** Not relevant, due to the form of the product.

**Eye Contact:** No adverse effects due to eye contact are expected.

**Skin Contact:** No adverse effects due to skin contact are expected.

**Ingestion:** Not relevant, due to the form of the product.

**Chronic Health Effects:** Not relevant, due to the form of the product.

**Potential Physical / Chemical Effects:** This product is not flammable. Will burn if involved in a fire.

**OSHA Regulatory Status:** This product is not hazardous according to OSHA 29CFR 1910.1200.

**Environment:** The product is not expected to be hazardous to the environment.

## 3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Concentration*
†Polytetrafluoroethylene	9002-84-0	1.5 - 2%

\* All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

† This chemical is hazardous according to OSHA/WHMIS criteria.

#### 4 FIRST AID MEASURES

**Inhalation:** No specific first aid measures noted.

**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.

**Ingestion:** No adverse effects due to ingestion are expected.

#### 5 FIRE-FIGHTING MEASURES

**Extinguishing Media:** This product is not flammable. Will burn if involved in a fire. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable Extinguishing Media:** None.

**Special Fire Fighting Procedures:** Use standard firefighting procedures and consider the hazards of other involved materials.

**Unusual Fire & Explosion Hazards:** During fire, gases hazardous to health may be formed.

**Hazardous Combustion Products:** Carbon Dioxide, Carbon Monoxide, Carbonyl fluoride, Nitrogen Oxides

**Protective Measures:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### 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.

**Spill Cleanup Methods:** Collect and dispose of spillage as indicated in section 13 of the MSDS.

**Environmental Precautions:** No specific precautions.

#### 7 HANDLING AND STORAGE

**Handling:** Normal handling and use of this product should not generate dust or fumes. Observe good

industrial hygiene practices.

**Storage:** Store in closed original container in a dry place.

<b>8</b>	<b>EXPOSURE CONTROLS / PERSONAL PROTECTION</b>
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**Exposure Limits:** No exposure limits noted for ingredient(s) on ACGIH, OSHA and WEEL lists.

**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.

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

**Eye Protection:** No special precautions.

**Hand Protection:** It is a good industrial hygiene practice to minimize skin contact.

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

**Hygiene Measures:** Wash hands after contact.

<b>9</b>	<b>PHYSICAL AND CHEMICAL PROPERTIES</b>
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**Color:** Black

**Odor:** None

**Odor Threshold:** No data available.

**Physical State:** Solid (Sleeve)

**pH:** Not applicable

**Melting Point:** 230°C (446°F)

**Freezing Point:** No data available.

**Boiling Point:** Not applicable.

**Flash Point:** Not applicable.

**Evaporation Rate:** No data available.

**Flammability Limit - Upper (%):** Not applicable.

**Flammability Limit - Lower (%):** Not applicable.

**Vapor Pressure:** Not applicable.

**Vapor Density (Air=1):** Not applicable.

**Specific Gravity:** 1.65 - 1.7

**Solubility in Water:** Insoluble

**Solubility (Other):** No data available.

**Partition Coefficient (n-Octanol/water):** No data available.

**Autoignition Temperature:** Not applicable.

**Decomposition Temperature:** No data available.

**Volatile Organic Compounds (VOC):** Not applicable.

**Viscosity:** Not applicable.

**Explosive Properties:** No data available

<b>10</b>	<b>STABILITY AND REACTIVITY</b>
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**Stability:** Stable under normal temperature conditions and recommended use.

**Conditions to Avoid:** No special precautions.

**Incompatible Materials:** Alkali metals.

**Hazardous Decomposition Products:**

At Elevated Temperatures:	Carbon Dioxide, Carbon Monoxide, Carbonyl fluoride, Nitrogen Oxides
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**Possibility of Hazardous Reactions:** Will not occur.

<b>11</b>	<b>TOXICOLOGICAL INFORMATION</b>
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**Specified Substance(s)**

**Acute Toxicity:**

**Test Results:** No test data available for the ingredients.

**Listed Carcinogens:**

Chemical Name	IARC	NTP	OSHA	ACGIH
Polytetrafluoroethylene	3	Not Listed	Not Listed	Not Listed

IARC: 1 = Carcinogenic to Humans; 2A = Probably Carcinogenic to Humans; 2B = Possibly Carcinogenic to Humans; 3 = Not classifiable as to carcinogenicity to humans; 4 = Probably not carcinogenic to humans; Not listed = Not evaluated by IARC.

ACGIH: A1 = Confirmed Human Carcinogen; A2 = Suspected Human Carcinogen; A3 = Confirmed Animal Carcinogen; A4 = Not classifiable as a human carcinogen; A5 = Not suspected to be a human carcinogen; Not listed = Not evaluated by ACGIH.

**Product Information**

**Acute Toxicity:**

**Test Results:** No test data available for the product.

**Other Acute:** Used as intended, this product is not expected to generate potentially hazardous quantities of dust or fumes.

**Chronic Toxicity:** Not relevant, due to the form of the product.

<b>12</b>	<b>ECOLOGICAL INFORMATION</b>
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**Ecotoxicity:** The product is not expected to be hazardous to the environment.

**Mobility:** Not relevant, due to the form of the product.

**Persistence and Degradability:** Not relevant.

**Bioaccumulation Potential:** Not relevant.

<b>13</b>	<b>DISPOSAL CONSIDERATIONS</b>
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**General Information:** Dispose of waste and residues in accordance with local authority requirements.

**Disposal Methods:** 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>14</b>	<b>TRANSPORT INFORMATION</b>
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**DOT** Not regulated.

**TDG** Not regulated.

**IATA** Not regulated.

**IMDG** Not regulated.

<b>15</b>	<b>REGULATORY INFORMATION</b>
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**Canadian Controlled Products Regulations:** This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.

**WHMIS Classification:** This is not a WHMIS controlled product.

**US Regulations**

**CERCLA Hazardous Substance List (40 CFR 302.4):** Not regulated.

**SARA Title III**

**Section 302 Extremely Hazardous Substances (40 CFR 355, Appendix A):** Not regulated.

**Section 311/312 (40 CFR 370):**

☐ Acute (Immediate)    ☐ Chronic (Delayed)    ☐ Fire    ☐ Reactive    ☐ Pressure Generating

**Section 313 Toxic Release Inventory (40 CFR 372):** Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**  
Not regulated.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):** Not regulated.

**Drug Enforcement Act:** Not regulated.

**TSCA**

**TSCA Section 4(a) Final Test Rules & Testing Consent Orders:** Not regulated.

**TSCA Section 5(a)(2) Final Significant New Use Rules (SNURs) (40CFR 721, Subpt. E):** Not regulated.

**TSCA Section 5(e) PMN-Substance Consent Orders:** Not regulated.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):** Not regulated.

### **State Regulations**

**California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):** Not regulated.

**Massachusetts Right-To-Know List:** Not regulated.

**Michigan Critical Materials List (Michigan Natural Resources and Environmental Protection Act (Act. 451 of 1994)):** Not regulated.

**Minnesota Hazardous Substances List:** Polytetraflouroethylene

**New Jersey Right-To-Know List:** Not regulated.

**Pennsylvania Right-To-Know List:** Polytetraflouroethylene

**Rhode Island Right-To-Know List:** Polytetraflouroethylene

<b>16</b>	<b>OTHER INFORMATION</b>
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### **HAZARD RATINGS**

	<b>Health Hazard</b>	<b>Fire Hazard</b>	<b>Instability</b>	<b>Special Hazard</b>
<b>NFPA</b>	NONE	NONE	NONE	NONE

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

NFPA Label colored diamond code: Blue - Health; Red - Flammability; Yellow - Instability; White - Special Hazards

	<b>Health Hazard</b>	<b>Flammability</b>	<b>Physical Hazard</b>	<b>Personal Protection</b>
<b>HMIS</b>	NA	NA	NA	NONE

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

HMIS Label colored bar code: Blue - Health; Red - Flammability; Orange - Physical Hazards; White - Special

**Issued by:** Federal-Mogul Corporation

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**Supersedes Date:**

**SDS No.:** Expando HR Plus (Black)\_NA

**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.