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## 1. IDENTIFICATION

### Product identifier

**Product Name** RailArmor® (All Grades)

### Other means of identification

**(M)SDS Number** 1408260

### Recommended use of the chemical and restrictions on use

**Recommended Use** No information available

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

**Supplier Identification** Whitmores Manufacturing ,LLC.

**Address** Whitmore Manufacturing  
930 Whitmore Drive  
Rockwall, Texas USA 75087

**Telephone** US Office: Phone:+1-972-771-1000 Fax:+1-972-722-2108

**E-mail** Sales@whitmores.com

### Emergency telephone number

**Company Emergency Phone Number** 1-800-699-6318

**Emergency Telephone Number** CHEMTREC: +1-703-527-3887 (INTERNATIONAL)  
1-800-424-9300 (NORTH AMERICA)

## 2. HAZARDS IDENTIFICATION

### Classification

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

**Appearance** Dark brown to dark gray

**Physical state** Paste / Gel

**Odor** Mild petroleum to mild sulfur



**GHS Label elements, including precautionary statements**

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood  
Wear protective gloves/protective clothing/eye protection/face protection  
Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Not applicable.

**Mixture**

Chemical Name	CAS-No	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Calcium carbonate	471-34-1	3-8	-	-
Graphite	7782-42-5	1-5	-	-
Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']- , (T-4)-	4259-15-8	1-3	-	-
Molybdenum (IV) sulfide	1317-33-5	1-3	-	-
Carbon black	1333-86-4	<1	-	-

The product contains no substances which at their given concentration, are considered to be hazardous to health.

### 4. FIRST AID MEASURES

**First aid measures****General advice**

IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air.

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

<b>Skin contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Burning sensation.
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**Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Treat symptomatically.
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**5. FIRE-FIGHTING MEASURES**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Hazardous Combustion Products</b>	Carbon oxides.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	None.
<b>Sensitivity to Static Discharge</b>	None.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
<b>Other Information</b>	Refer to protective measures listed in Sections 7 and 8.

**Environmental precautions**

<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.
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**Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.



## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Limits**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	
Calcium carbonate 471-34-1	-	TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> (vacated) TWA: 15 mg/m <sup>3</sup> (vacated) TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> respirable dust TWA: 10 mg/m <sup>3</sup> total dust	
Graphite 7782-42-5	TWA: 2 mg/m <sup>3</sup> respirable particulate matter all forms except graphite fibers	TWA: 15 mg/m <sup>3</sup> total dust synthetic TWA: 5 mg/m <sup>3</sup> respirable fraction synthetic (vacated) TWA: 2.5 mg/m <sup>3</sup> respirable dust natural (vacated) TWA: 10 mg/m <sup>3</sup> total dust synthetic (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction synthetic TWA: 15 mppcf natural	IDLH: 1250 mg/m <sup>3</sup> TWA: 2.5 mg/m <sup>3</sup> respirable dust	
Molybdenum (IV) sulfide 1317-33-5	TWA: 10 mg/m <sup>3</sup> Mo inhalable particulate matter TWA: 3 mg/m <sup>3</sup> Mo respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 10 mg/m <sup>3</sup> Mo	IDLH: 5000 mg/m <sup>3</sup> Mo	
Carbon black 1333-86-4	TWA: 3 mg/m <sup>3</sup> inhalable particulate matter	TWA: 3.5 mg/m <sup>3</sup> (vacated) TWA: 3.5 mg/m <sup>3</sup>	IDLH: 1750 mg/m <sup>3</sup> TWA: 3.5 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> Carbon black in presence of Polycyclic aromatic hydrocarbons PAH	
Chemical Name	Alberta	British Columbia	Ontario TWAEV	Quebec
Calcium carbonate 471-34-1	TWA: 10 mg/m <sup>3</sup>			TWA: 10 mg/m <sup>3</sup>
Graphite 7782-42-5	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>
Molybdenum (IV) sulfide 1317-33-5	TWA: 10 mg/m <sup>3</sup> TWA: 3 mg/m <sup>3</sup>	TWA: 3 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 3 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>
Carbon black 1333-86-4	TWA: 3.5 mg/m <sup>3</sup>	TWA: 3 mg/m <sup>3</sup>	TWA: 3 mg/m <sup>3</sup>	TWA: 3.5 mg/m <sup>3</sup>

**Other Exposure Guidelines** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992). See section 15 for national exposure control parameters.

**Appropriate engineering controls**



**Engineering controls**                      Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      If splashes are likely to occur, wear safety glasses with side-shields.

**Hand protection**                              Wear suitable gloves.

**Skin and body protection**                  Wear suitable protective clothing.

**Respiratory protection**                      No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**          Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical and Chemical Properties**

**Physical state**                                  Paste / Gel

**Appearance**                                  Dark brown to dark gray

**Odor**    Mild petroleum to mild sulfur

**Color**    No information available

**Odor Threshold**                              No information available

<u>Property</u>	<u>Values</u>	<u>Remarks Method</u>
pH	UNKNOWN	
Melting / freezing point	204.44°C	None known
Boiling point / boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	.92	
Water Solubility	No data available	
Solubility(ies)	No data available	None known
Partition coefficient: n-octanol/water	No data available	
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

**Other Information**

**Softening Point**                                  No information available

**Molecular Weight**                              No information available

**VOC Content (%)**                                No information available

**Liquid Density**                                 No information available



**Bulk Density** No information available  
**Particle Size** No information available  
**Particle Size Distribution** No information available

**10. STABILITY AND REACTIVITY**

**Reactivity** No information available.  
**Chemical stability** Stable under normal conditions.  
**Possibility of Hazardous Reactions** None under normal processing.  
**Hazardous Polymerization** Hazardous polymerization does not occur.  
**Conditions to avoid** None known based on information supplied.  
**Incompatible materials** None known based on information supplied.  
**Hazardous Decomposition Products** Carbon oxides.

**11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure

**Product Information**

**Inhalation** No known hazard by inhalation.  
**Eye contact** Specific test data for the substance or mixture is not available. Contact with eyes may cause irritation.  
**Skin contact** None known.  
**Ingestion** Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Information on toxicological effects

**Symptoms** May cause redness and tearing of the eyes.

Numerical measures of toxicity

**Acute Toxicity**

The following values are calculated based on chapter 3.1 of the GHS document .

**ATEmix (oral)** 6,381.00 mg/kg

**Unknown acute toxicity** No information available

Chemical Name	LD50 Oral	LD50 Dermal	Inhalation LC50
Calcium carbonate	= 6450 mg/kg ( Rat )		
Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-4)-	= 3100 mg/kg ( Rat )	> 5000 mg/kg ( Rabbit )	
Molybdenum (IV) sulfide			> 2820 mg/m <sup>3</sup> ( Rat ) 4 h
Carbon black	> 15400 mg/kg ( Rat )	> 3 g/kg ( Rabbit )	

Delayed and immediate effects as well as chronic effects from short and long-term exposure



<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity Legend</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Zinc, bis[O,O-bis(2-ethylhexyl)phosphorodithioato-S,S`]-, (T-4)-	96h EC50: 1.0 - 5.0 mg/L (Pseudokirchneriella subcapitata)	96h LC50: 1.0 - 5.0 mg/L (Pimephales promelas) 96h LC50: 10.0 - 35.0 mg/L (Pimephales promelas)	-	48h EC50: 1 - 1.5 mg/L
Carbon black			-	24h EC50: > 5600 mg/L

**Persistence and Degradability** No information available.

**Bioaccumulation**

Chemical Name	Log Pow
Zinc, bis[O,O-bis(2-ethylhexyl)phosphorodithioato-S,S`]-, (T-4)-	2.86

**Mobility** No information available.

**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**California Hazardous Waste Codes** 141



This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S'-], (T-4)-4259-15-8	Toxic

**14. TRANSPORT INFORMATION**

<b>DOT</b>	NOT REGULATED
<b>Proper Shipping Name</b>	NON-REGULATED
<b>Hazard Class</b>	N/A
<b>TDG</b>	Not regulated
<b>MEX</b>	NOT REGULATED
<b>ICAO</b>	NOT REGULATED
<b>IATA</b>	Not regulated
<b>Proper Shipping Name</b>	NON REGULATED
<b>IMDG</b>	Not regulated
<b>RID</b>	NOT REGULATED
<b>ADR</b>	NOT REGULATED
<b>ADN</b>	NOT REGULATED

**15. REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**International Regulations**

**Ozone-depleting substances (ODS)** Not applicable

**Persistent Organic Pollutants** Not applicable

**Export Notification requirements** Not applicable

**International Inventories**

<b>TSCA</b>	Complies.
<b>DSL/NDSL</b>	Complies.
<b>EINECS/ELINCS</b>	Complies.
<b>ENCS</b>	Complies.
<b>KECL</b>	Contact supplier for inventory compliance status.
<b>PICCS</b>	Contact supplier for inventory compliance status.
<b>AICS</b>	Contact supplier for inventory compliance status.

**Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances





AICS - Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS-No	Weight-%	SARA 313 - Threshold Values %
Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S`]-, (T-4)- - 4259-15-8	4259-15-8	1-3	1.0

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S`]-, (T-4)- 4259-15-8		X		

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

This product contains carbon black which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is not in a respirable form.

**U.S. State Right-to-Know Regulations**

This product may contain substances regulated by state right-to-know regulations.

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Calcium carbonate 471-34-1	X				
Graphite 7782-42-5	X	X	X		
Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S`]-, (T-4)- 4259-15-8	X		X	X	
Molybdenum (IV) sulfide 1317-33-5		X			



Carbon black 1333-86-4	X	X	X		X
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**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health hazards</b> 1	<b>Flammability</b> 1	<b>Instability</b> 0	<b>Physical and Chemical Properties -</b>
<b>HMIS</b>	<b>Health hazards</b> 1	<b>Flammability</b> 1	<b>Physical hazards</b> 0	<b>Personal Protection</b> X
<i>Chronic Hazard Star Legend</i>	<i>* = Chronic Health Hazard</i>			

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**Revision Note** No information available

**Disclaimer**

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

**End of Safety Data Sheet**

