



# TECHNICAL DATA SHEET

## RailGuard®

### TOP OF RAIL FRICTION MODIFIER

Whitmore's RailGuard® is specifically designed for application to the top of the rail. It effectively brings the friction coefficient into the ideal range, reducing noise and wear.

No other product can match RailGuard® for all-round performance. The carry-down from the applicator is outstanding. Product has been detected as far as one mile (1.5 km) from the applicator.

A long-term study (17 months) in Europe demonstrated wear reduction of 75%. (The study was conducted on a curved section of track that had been experiencing rolling contact fatigue.)

Tests in both Europe and Asia have shown consistent reductions in noise of 3.7 to 4.0 dB. The tests compared dry rail to rail treated with RailGuard® Heavy. More importantly, the high pitched squeal was eliminated.

RailGuard® does not interfere with shunting, traction or braking.

RailGuard® Medium grade should be used where temperatures are expected to drop below about 32°F (0°C).

#### BENEFITS:

- REDUCES WEAR - Extends rail life and intervals between grinding.
- WATER RESISTANT – RailGuard® is not easily removed even by pounding rain.
- NOISE – Eliminates high-pitched squeal.
- LONG CARRY-DOWN - This reduces the number of applicators needed.

#### APPLICATION:

RailGuard® is suitable for use in trackside systems designed to deliver product to the top of the rail.

ASTM #		TYPICAL CHARACTERISTICS	
		Medium	Heavy
	<b>Appearance</b>	Tacky Black Semi-Fluid Gel	Tacky Black Gel
<b>D-2983</b>	<b>Brookfield Viscometer</b> Spindle 6 @ 10 rpm @ 77°F (25°C), cps Spindle 7 @ 5 rpm @ 77°F (25°C), cps	5,000 – 7,000 --	-- 265,000
<b>D-92</b>	<b>Flash Point, °F (°C)</b> Cleveland Open Cup	>400 (204)	>400 (204)
<b>D-2596</b>	<b>Four Ball EP</b> Weld Point, kg	800	800
	<b>Usable Temperature, °F (°C)</b>	0 (-18) to 55 (13)	Above 40 (5)

The above are average values. Minor variations which do not affect product performance are to be expected in normal manufacturing.

#### PACKAGING

Pails w/Liners

Distributed By:



Western Sierras Inc.  
314 North Park Street, Reno, NV 89512  
<http://www.westernsierras.com>

(775) 324-2577  
(775) 786-6098  
info@westernsierras.com

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# WHITMORE'S

## MATERIAL SAFETY DATA SHEET

I. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY					
<b>Product Name:</b>	<b>RailGuard®</b> (All Grades)	<b>Manufacturer/Supplier:</b> The Whitmore Manufacturing Company 930 Whitmore Drive Rockwall, Texas 75087, U.S.A.			
<b>Chemical Family:</b>	Petroleum Hydrocarbon				
<b>Use:</b>	Top of Rail Friction Modifier				
<b>Emergency Tel. No.:</b>	CHEMTREC U.S.A. & Canada International Australia	800-424-9300 (24 hrs) 703-527-3887 (Collect - 24 hr) 00-111-703-527-3887 (Collect - 24 hr)			
II. COMPOSITION INFORMATION ON INGREDIENTS					
<u>Hazardous Components</u>	<u>CAS No.</u>	<u>Wt%</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>Other Limits of Exposure</u>
None					
III. ADVERSE HUMAN HEALTH EFFECTS					
<b>Eyes:</b>	Any eye contact will cause irritation.				
<b>Skin:</b>	Prolonged skin contact may cause irritation.				
<b>Inhalation:</b>	Not Applicable				
<b>Ingestion:</b>	May be harmful if swallowed.				
IV. FIRST AID MEASURES					
<b>Eyes:</b>	Flush with large amounts of cold water. If irritation persists, SEEK MEDICAL ATTENTION.				
<b>Skin:</b>	Thoroughly wash exposed area with soap and water.				
<b>Inhalation:</b>	N/A				
<b>Ingestion:</b>	If cathartic effect persists, SEEK MEDICAL ATTENTION.				
V. FIRE FIGHTING MEASURES					
<b>Extinguishing Media:</b>	Foam, Dry Chemical, Carbon Dioxide				
<b>Unsuitable Extinguishing Media:</b>	None known.				
<b>Fire Fighting Protective Equipment:</b>	If product is overheated, use organic NIOSHA/MSHA filter-type respirator.				
VI. ACCIDENTAL RELEASE MEASURES					
<b>Personal Precautions:</b>	Wear plastic or neoprene rubber gloves and safety goggles.				
<b>Environmental Precautions:</b>	Check state regulatory requirements.				
<b>Spillage:</b>	Absorb with dry, inert material and shovel up.				
VII. HANDLING AND STORAGE					
<b>Handling:</b>	Keep away from open flame or sparks.				
<b>Storage:</b>	Keep away from open flame or sparks.				
VIII. EXPOSURE CONTROL/PERSONAL PROTECTION					
<b>Respiratory Protection:</b>	None				
<b>Hand Protection:</b>	Protective gloves for hypersensitive persons.				
<b>Eye Protection:</b>	Safety Goggles				
<b>Body Protection:</b>	None				

### HMS SYMBOLS

Health	1
Flammability	1
Reactivity	0
PPI	B

MSDS-558

Effective Date: 3-31-09

Revised Date: 7-15-11

IX. PHYSICAL AND CHEMICAL PROPERTIES			
<b>Physical State:</b>	Soft Paste/Grease	<b>Color:</b>	Black
<b>Boiling Range/point, °F (°C):</b>	N/A	<b>Melting Point, °F (°C):</b>	>330 (>166)
<b>Flash Point (COC), °F (°C):</b>	400 (204)	<b>Autoignition Temperature, °F (°C):</b>	>600 (>316)
<b>Explosive Properties:</b>	<b>LEL:</b> N/A <b>UEL:</b> N/A	<b>Evaporation Rate (Butyl Acetate):</b>	N/A
<b>Partition Coefficient (Log Pow):</b>	N/A	<b>Vapor Pressure (kPa):</b>	Nil
<b>Density:</b>	8.33 lb/gal	<b>Flammability:</b>	N/A
<b>Oxidizing Properties:</b>	None	<b>Solubilities in Water:</b>	Nil
<b>Vapor Density:</b>	N/A	<b>% Volatiles:</b>	Nil
X. STABILITY AND REACTIVITY			
<b>Stability:</b>	Chemically stable under normal conditions.		
<b>Conditions to Avoid:</b>	None known.		
<b>Materials to Avoid:</b>	Strong oxidizing agents.		
<b>Decomposition Products:</b>	Oxides of carbon, sulfur, & phosphorus.		
XI. TOXICOLOGICAL INFORMATION			
<b>Acute Toxicity:</b>	None	<b>Skin Irritancy:</b>	Very Mild
<b>Chronic Toxicity:</b>	None	<b>Skin Sensitization:</b>	None
<b>Sub-acute/Subchronic Toxicity:</b>	Not Known	<b>Genotoxicity:</b>	Not Known
<b>California Prop 65:</b>	N/A	<b>EC Classification (67/548/EEC):</b>	R22
<b>Carcinogenicity:</b>	NTP: No	<b>IARC:</b>	Yes (Carbon Black)
<b>LC-50:</b>	Not Available	<b>OSHA:</b>	No
		<b>LD-50:</b>	Not Available
XII. ECOLOGICAL INFORMATION			
<b>Possible Effects:</b>	None known.		
<b>Behavior:</b>	Relatively well behaved. Bioaccumulation potential nil.		
<b>Environmental Fate:</b>	Not thought to be toxic to marine or land organisms. Fluid is lower density than water.		
XIII. WASTE DISPOSAL			
<b>Product Disposal:</b>	Contact waste disposal company or local authority for advice.		
<b>Container Disposal:</b>	Check state regulatory requirements.		
XIV. TRANSPORT INFORMATION			
<b>DOT:</b>	Not Regulated	<b>UN No.:</b>	Not Regulated
<b>Air Transport (ICAO/IATA):</b>	Not Regulated		
<b>Sea Transport (IMO/IMDG):</b>	Not Regulated		
<b>Road and Rail Transport (ADR/RID):</b>	Not Regulated		
XV. REGULATORY INFORMATION			
<b>Labeling Information:</b>	N/A	<b>EC Annex 1 Classification:</b>	R22
<b>R Phrases:</b>	N/A		
<b>S Phrases:</b>	S25 Avoid contact with eyes. S46 If swallowed, seek medical advice immediately and show them container or label.		
<b>Ozone Depleting Chemicals:</b>	None/Nil	<b>TSCA:</b>	All components listed.
<b>WHMIS (Canada):</b>	N/A		
<b>EPA Regulation 40 CFR Part 372 (SARA Section 313):</b>	See Section II.		
XVI. OTHER INFORMATION			
None			

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