



MATERIAL SAFETY DATA SHEET

MiraDri 861 membranes, 861 Strips, all configurations, Issued: 06/30/08

Supersedes: 01/23/03

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MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: CCW MiraDri 861 membranes, all configurations.

Synonyms: Rubberized asphalt self-adhering sheet with polyethylene film

Manufacturer/Supplier

Carlisle Coatings & Waterproofing Incorporated

900 Hensley Lane

Wylie, TX 75098

Internet Address: www.Carlisle-CCW.com

Fax Number: (972) 442-0076

Phone Numbers

Medical Emergency:

CHEMTREC(USA): (800) 424-9300

CHEMTREC(International)::

MSDS Assistance: (972) 442-6545

Fax On Demand: NA

2. COMPONENT INFORMATION

Component CAS No. Percent Range Hazardous in Blend

Petroleum Asphalt 8052-42-4 60-80

Rubber- Copolymer 9003-55-8 5-20

CaCO₃ 1317-65-3 0-30

Hydrotreated Heavy

Naphthenic Distillate

64742-52-5 <20

This product is hazardous according OSHA 29 CFR 1910.1200.

Hazards:

Flammable/Combustible X Acute Toxin X Chronic

Toxin

X Carcinogen X

Pressure No Reactive No Exposure Limit Target Organ Other

3. HAZARDS IDENTIFICATION

Emergency and Hazards Overview:

Repeated skin contact with rubberized asphalt may result in slight irritation. Prolonged skin contact with process oil in the rubberized asphalt may cause an increased risk of skin cancer, liver damage and reproduction effects based on laboratory animals tests. Skin cleansing studies with aromatic oils show that the toxic effects are not likely to occur to humans if good personal hygiene practices are used. May be harmful if swallowed. Read and understand all health and safety information on the product label and Material Safety Data Sheet before use.

Ratings

Health 2 Flammability 1 Reactivity 0

Primary Route of Exposure: Skin x Inhalation x Eye x Ingestion x

Health Effect Information

Eye Contact: May cause eye irritation if wiped or rubbed into eyes.

Skin Contact: May cause skin irritation on prolonged or repeated contact.

Inhalation: Inhalation is unlikely due to the nature of this product

Ingestion: There are no known health effects due to ingestion. Ingestion is unlikely due to the nature of this product.

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Medical Conditions Aggravated by Exposure: Prolonged contact with oil residues in this product may produce effects including skin cancer.

4. FIRST AID INFORMATION

Eye Contact: Flush with water for 15 minutes. Get medical attention immediately.

Skin Contact: Wipe off and wash skin with soap and water. Promptly remove contaminated clothing and wash before reuse. See a physician if irritation develops.

Inhalation: No known adverse effect unless heated.

Ingestion: Due to the nature of this product ingestion is unlikely. Consult a physician immediately.

Notes to Physician: This product contains asphalt and mineral process oil.

5. FIRE AND EXPLOSION INFORMATION

Flammable Properties

Flash Point: >450°F **Test Method:** COC

Flame extension: NA **Test Method:** NA

Flammable Limits in Air

Upper Percent: NA

Lower Percent: NA

Autoignition Temperature: NA **Test Method:** NA

NFPA Classification: H 2 F 1 R 0

Extinguishing Media: CO₂, foam, dry chemical or water spray.

Fire Fighting Measures

Special Fire Fighting Procedures and Equipment: Wear NIOSH/MSHA approved respirators, or self-contained breathing apparatus(SCBA).

Unusual Fire and Explosion Conditions: None known.

Hazardous Combustion By-Products: CO, CO₂, unburned hydrocarbons.

6. ACCIDENTAL RELEASE MEASURES

Personnel Safeguards: Evacuate non-essential personnel to safe areas. Clean-up responders should wear proper protective clothing and gloves before entering the affected area.

Regulatory Notifications: Certain component of this product is defined as hazardous according to U.S. EPA. Spill reporting requirements and reportable quantities vary by region. Consult all applicable state and local regulations. For Canada, observe all precautions noted above.

Containment and Clean up: Observe above precautions, thoroughly clean the area and remove materials for disposal.

7. HANDLING AND STORAGE INFORMATION

Handling: Avoid prolonged contact with skin. Use protective gloves. Avoid rubbing eyes while handling.

Storage: Store in dry, cool environment. Keep containers closed when not in use.

Empty Container Warnings

Drums: NA

Plastic: NA

8. EXPOSURE CONTROLS / PERSONAL PROTECTION INFORMATION

Exposure Limits and Guidelines

Component CAS No. Exposure Limit

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Asphalt 8052-42-4 5 mg/m³ TWA

Hydrated Naphthenic Distillate 64742-52-5 5 mg/m³ TWA, 10mg/m³ ACGIH STEL

CaCO₃ 1317-65-3 2 mg/m³ ACGIH TLV

Personal Protective Equipment

Eye/Face Protection: Wear safety goggles during hot melt application.

Skin Protection: Use protective insulation gloves during hot melt application.

Respiratory Protection: Provide adequate ventilation to maintain vapors below PEL/TWA. If vapor levels are exceeded, use NIOSH approved respirator, both during and immediately after application, until vapor levels are below limits.

Personal Hygiene: Avoid rubbing eyes during handling. Due to the nature of this product ingestion is unlikely. Use good personal hygiene practices to avoid incidental ingestion.

Engineering Controls / Work Practices

Ventilation: If material is heated or otherwise made airborne, provide local exhaust or area ventilation to maintain concentration of vapors below 5 mg/m³ PEL/TWA.

Other: Source of clean water should be available in the work area for flushing eyes and skin. Wash thoroughly with soap and water after use and before eating.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Black rubberized asphalt **Vapor Pressure:** NA

Odor: Slight petroleum odor

Physical state: Pliable solid **Vapor Density (air=1):** NA

pH: NA **Percent Volatile by Volume:** Negligible

DOT Corrosivity: NA **Volatile Organic Content:** Negligible

Boiling Point: NA **Molecular Weight:** NA

Melting Point: 190 to 230°F **Average Carbon Number:** NA

Specific Gravity: 1.0-1.2 **Viscosity @ 77 F:** Solid

Pour Point: >300°F

Solubility in Water: Negligible

Octanol / Water Coefficient: Log K_{ow} = NA

10. STABILITY AND REACTIVITY INFORMATION

Chemical Stability: Stable under normal condition.

Conditions to Avoid: Avoid extreme heat, fire and temperature.

Incompatible Materials to Avoid: Avoid strong acids, strong oxidizers.

11. TOXICOLOGICAL INFORMATION (will only print available data)

Primary Eye Irritation: Irritating

Primary Skin Irritation: May be irritating

Acute Dermal Toxicity: NA

Subacute Dermal Toxicity: NA

Dermal Sensitization: NA

Inhalation Toxicity: NA

Inhalation Sensitization: NA

Oral Toxicity: Mineral oil mist, LD₅₀(mouse): 22,000 mg/kg

Mutagenicity: NA

Carcinogenicity: Prolonged >5mg/m³ oil mist exposure may result in a cancer risk. Due to the nature of the product it is unlikely that the CaCO₃ will be airborne.

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Reproductive Toxicity: NA

Teratogenicity: NA

Immunotoxicity: NA
Neurotoxicity: NA
Other:No other toxicological information available

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: Not known
Terrestrial Toxicity: Not known
Chemical Fate and Transport: Not known
No other ecological information available

13. DISPOSAL INFORMATION

Regulatory Information: Consult all regulations (federal, state, provincial, local etc.) or a qualified waste disposal firm when characterizing waste for disposal.
Waste Disposal Methods: Dispose of in accordance with all applicable regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT)
Highway / Rail (Bulk): Not classified
Highway / Rail (Non-Bulk): Not classified
The DOT description is provided to assist in the proper shipping classification of this product and may not be suitable for all shipping descriptions.
International Information
Vessel: IMDG Regulated: Not classified **IMDG Not Regulated**
Air: ICAO Regulated: Not classified **ICAO Not Regulated**
Other: No other information available.

15. Regulatory Information

Regulatory Lists
U.S. TSCA Inventory: All components of this material are on the US TSCA Inventory or exempt from listing on the TSCA Inventory.
Sara Section 313: This product contains no chemical listed in Sara, Title III, Section 313 Chemicals:
Chemical CAS Number Percent in Product
Regulatory Lists Searched
Health & Safety: NA
Environmental: NA
International: NA
State: FL, MA, MN, PA, RI
National Inventories: NA
SARA 311 / 312 Categories
Acute: Yes **Chronic:** Yes **Fire:** No **Pressure:** No **Reactive:** No
Not Regulated:
California Proposition 65 Information: Warning! This product contains substances known to the state of California to cause cancer.
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Canadian WHMIS Classification
Class: Class B
Division: 4
This product has been classified in accordance with hazard criteria of the Controlled Products Regulations (CPR). This MSDS contains all the information required by the CPR.
European Union Classification
Hazard Symbol:
Toxic

Risk Phrases: R45

Safety Phrases: S38, S45, S53

Other Regulations: No other information available.

16. OTHER INFORMATION

Health and Environmental Label Language

All ingredients contained in this product are included on the US EPA Toxic Substances Control Act (TSCA) inventory or exempt from listing on the TSCA inventory. All ingredients contained in this product comply with the requirements of the Canadian Environmental Protection Act (CEPA) and are listed on the Domestic Substance List (DSL) or Non-Domestic Substance List (NDSL)

MSDS Revisions

Previous Version Date: 01/23/03

Section

Old Information: 9-part version

New Information: 16-part version

Prepared By: Alvin Binkley **Date:** 06/30/08

Disclaimer of Warranty: The information contained herein is based upon data and information available to us, and reflects our best professional judgement. This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, Carlisle Coating and Waterproofing Inc. rely upon the hazard evaluation of such components submitted by that product's manufacturer or importer. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.