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**Section 1 - PRODUCT AND COMPANY IDENTIFICATION**

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**Material Name**

CCW MiraDRI 860

**Synonyms**

Self-Adhering Rubberized Asphalt Membrane

**Chemical Family**

Rubber Asphalt products

**Product Use**

Waterproofing membrane

**Restrictions on Use**

For industrial use only.

**Manufacturer Information**

Carlisle Coatings and Waterproofing, Inc  
900 Hensley Lane  
Wylie, TX 75098  
www.carlisleccw.com

**Phone Numbers:**

Medical Emergency  
CHEMTREC (USA): 800-424-9300

MSDS Assistance; 972-442-6545  
Technical Assistance: 888-229-2199  
Customer Service: 888-229-0199

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**Section 2 - HAZARDS IDENTIFICATION**

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**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**

Skin Corrosion/Irritation - Category 2

Reproductive Toxicity - Category 1B

Specific Target Organ Toxicity - Single Exposure - Category 2 ( liver, kidneys, thymus )

**GHS Label Elements**

**Symbol(s)**



**Signal Word**

Danger

**Hazard Statement(s)**

Causes skin irritation

May damage fertility or the unborn child

May cause damage to organs

**Precautionary Statement(s)**

**Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wear protective gloves/protective clothing/eye protection/face protection

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Do not breathe dust/fume/gas/mist/vapours/spray  
Wash thoroughly after handling  
Do not eat, drink or smoke when using this product

### Response

If exposed or concerned: Call a POISON CENTER or doctor/physician  
IF ON SKIN: Wash with plenty of soap and water  
If skin irritation occurs: Get medical advice/attention  
Take off contaminated clothing and wash before reuse  
Specific treatment (see label)

### Storage

Store locked up

### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations

### Other Hazards

No additional information available.

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## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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CAS	Component Name	Percent
64742-52-5	Distillates, petroleum, hydrotreated heavy naphthenic	5-10
8052-42-4	Asphalt	0-75
64742-93-4	Asphalt, oxidized	0-75
68955-27-1	Distillates, petroleum, petroleum residues vacuum	0-75
64741-56-6	Residues, petroleum, vacuum	0-75
Mixture	Fatty acids, tall-oil, low-boiling	0.8

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## Section 4 - FIRST AID MEASURES

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### Description of Necessary Measures

If exposed or concerned: Call a POISON CENTER or doctor/physician.

### Inhalation

Inhalation unlikely due to physical form. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

### Skin

Wash exposed skin with soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.

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### **Eyes**

Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

### **Ingestion**

Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

### **Indication of any immediate medical attention and special treatment needed**

Treat symptomatically and supportively.

### **Most Important Symptoms/Effects**

#### **Acute**

Causes skin irritation. May cause damage to the kidneys, liver, thymus.

#### **Delayed**

May damage fertility or the unborn child.

### **Note to Physicians**

Contains ASPHALT.

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## **Section 5 - FIRE FIGHTING MEASURES**

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### **Extinguishing Media**

#### **Suitable Extinguishing Media**

Use carbon dioxide, regular dry chemical, regular foam or water.

#### **Unsuitable Extinguishing Media**

None known.

### **Special Hazards Arising from the Chemical**

Slight fire hazard.

### **Hazardous Combustion Products**

Oxides of carbon, hydrocarbons

### **Special Protective Equipment and Precautions for Firefighters**

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

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## **Section 6 - ACCIDENTAL RELEASE MEASURES**

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### **Personal Precautions, Protective Equipment and Emergency Procedures**

Wear personal protective clothing and equipment, see Section 8.

### **Methods and Materials for Containment and Cleaning Up**

Remove all sources of ignition. Avoid inhalation of material or combustion by-products. Ventilate affected area. Absorb with earth, sand or other non-combustible material and transfer to container. Dispose in accordance with all applicable regulations.

### **Environmental Precautions**

Avoid release to the environment.

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### Section 7 - HANDLING AND STORAGE

**Precautions for Safe Handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin and clothing. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. **KEEP OUT OF REACH OF CHILDREN.**

**Conditions for Safe Storage, Including any Incompatibilities**

Store locked up

Store in a cool, dry place. Keep container tightly closed and in a well-ventilated place. Keep away from heat and ignition sources. Keep away from incompatible materials. Do not cut, puncture, or weld on or near this container.

**Incompatible Materials**

Strong acids, strong oxidizing agents

### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

**Component Exposure Limits**

<b>Asphalt</b>	8052-42-4	
ACGIH:	0.5 mg/m <sup>3</sup> TWA as benzene soluble aerosol fume, inhalable fraction	
NIOSH:	5 mg/m <sup>3</sup> Ceiling fume 15 min	
Mexico:	5 mg/m <sup>3</sup> TWA LMPE-PPT	10 mg/m <sup>3</sup> STEL [LMPE-CT]
<b>Hydrogen sulfide</b>	7783-06-4	
ACGIH:	1 ppm TWA	5 ppm STEL
NIOSH:	10 ppm Ceiling 10 min; 15 mg/m <sup>3</sup> Ceiling 10 min	
	100 ppm IDLH	
Europe:	5 ppm TWA; 7 mg/m <sup>3</sup> TWA	10 ppm STEL; 14 mg/m <sup>3</sup> STEL
OSHA (US):	20 ppm Ceiling	
Mexico:	10 ppm TWA LMPE-PPT; 14 mg/m <sup>3</sup> TWA LMPE-PPT	
	15 ppm STEL [LMPE-CT]; 21 mg/m <sup>3</sup> STEL [LMPE-CT]	

**Biological limit value**

There are no biological limit values for any of this product's components.

**Engineering Controls**

Provide adequate ventilation. Ensure compliance with applicable exposure limits.

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**Individual Protection Measures, such as Personal Protective Equipment**

**Eye/face protection**

Wear safety glasses or safety goggles, with a faceshield, as appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin Protection**

Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Recommended material: protective skin cream.

**Respiratory Protection**

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**Glove Recommendations**

Wear appropriate chemical resistant gloves.

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### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	Black rubberized asphalt	<b>Physical State</b>	solid
<b>Odor</b>	Slight,petroleum	<b>Color</b>	black
<b>Odor Threshold</b>	Not available	<b>pH</b>	Not available
<b>Melting Point</b>	Not available	<b>Boiling Point</b>	Not available
<b>Freezing point</b>	Not available	<b>Evaporation Rate</b>	<0.01
<b>Boiling Point Range</b>	Not available	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition</b>	Not available	<b>Flash Point</b>	232°C (>450 °F)
<b>Lower Explosive Limit</b>	Not available	<b>Decomposition</b>	Not available
<b>Upper Explosive Limit</b>	Not available	<b>Vapor Pressure</b>	Not available
<b>Vapor Density (air=1)</b>	Not available	<b>Specific Gravity (water=1)</b>	Not available
<b>Water Solubility</b>	Negligible	<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Viscosity</b>	Not available	<b>Solubility (Other)</b>	Not available
<b>Density</b>	1 - 1.2 (relative)		

**Other Information**

No additional information available.

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### Section 10 - STABILITY AND REACTIVITY

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**Reactivity**

No reactivity hazard is expected.

Material Name: CCW MiraDRI 860

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**Chemical Stability**

Stable under normal conditions of use.

**Possibility of Hazardous Reactions**

Hazardous polymerization will not occur.

**Conditions to Avoid**

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

**Incompatible Materials**

Strong acids, strong oxidizing agents

**Hazardous decomposition products**

Oxides of carbon, hydrocarbons

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**Section 11 - TOXICOLOGICAL INFORMATION**

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**Information on Likely Routes of Exposure****Inhalation**

Not a likely route of exposure.

**Skin Contact**

Causes skin irritation.

**Eye Contact**

May cause mild eye irritation.

**Ingestion**

May cause gastrointestinal irritation.

**Acute and Chronic Toxicity****Component Analysis - LD50/LC50**

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Asphalt (8052-42-4)

Oral LD50 Rat &gt;5000 mg/kg

Dermal LD50 Rabbit &gt;2000 mg/kg

Asphalt, oxidized (64742-93-4)

Oral LD50 Rat &gt;5000 mg/kg

Dermal LD50 Rabbit &gt;2000 mg/kg

Distillates, petroleum, petroleum residues vacuum (68955-27-1)

Oral LD50 Rat 4320 mg/kg

Dermal LD50 Rabbit &gt;2000 mg/kg

Residues, petroleum, vacuum (64741-56-6)

Oral LD50 Rat 4320 mg/kg

Dermal LD50 Rabbit &gt;2000 mg/kg

Hydrogen sulfide (7783-06-4)

Inhalation LC50 Rat 0.99 mg/L 1 h

Fatty acids, tall-oil, low-boiling (Mixture)

Oral LD50 Rat &gt;2000 mg/kg

Dermal LD50 Rat &gt;2000 mg/kg

**Immediate Effects**

Causes skin irritation. May cause damage to the kidneys, liver, thymus.

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**Product #:305145**

**Delayed Effects**

May damage fertility or the unborn child.

**Irritation/Corrosivity Data**

May cause mild skin irritation. May cause mild eye irritation. May cause respiratory irritation.

**Respiratory Sensitization**

No data available.

**Dermal Sensitization**

No data available.

**Component Carcinogenicity**

<b>Asphalt</b>	8052-42-4
ACGIH:	A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free)
IARC:	Monograph 103 [2013]; Supplement 7 [1987] (extracts of steam-refined and air-refined); Monograph 35 [1985] (Group 2B (possibly carcinogenic to humans))
DFG:	Category 2 (considered to be carcinogenic for man, aerosol and vapor)
OSHA:	Present
<b>Asphalt, oxidized</b>	64742-93-4
IARC:	Monograph 103 [2013] (and their emissions during roofing) (Group 2A (probably carcinogenic to humans))
OSHA:	Present
<b>Residues, petroleum, vacuum</b>	64741-56-6
IARC:	Monograph 103 [2013] (Group 2B (possibly carcinogenic to humans))
OSHA:	Present
<b>Polycyclic aromatic hydrocarbons</b>	130498-29-2
NTP:	Reasonably Anticipated To Be A Human Carcinogen
OSHA:	Present

**Germ Cell Mutagenicity**

No data available.

**Tumorigenic Data**

No data available

**Reproductive Toxicity**

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May damage fertility or the unborn child.

**Specific Target Organ Toxicity - Single Exposure**

kidneys, liver, thymus

**Specific Target Organ Toxicity - Repeated Exposure**

No target organs identified.

**Aspiration hazard**

No data available.

**Medical Conditions Aggravated by Exposure**

No data available.

**Additional Data**

No additional information available.

### Section 12 - ECOLOGICAL INFORMATION

**Ecotoxicity**

Avoid release to the environment.

**Component Analysis - Aquatic Toxicity**

<b>Distillates, petroleum, hydrotreated heavy naphthenic</b>	64742-52-5
Fish:	LC50 96 h Oncorhynchus mykiss >5000 mg/L
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L IUCLID
<b>Asphalt, oxidized</b>	64742-93-4
Algae:	EC50 72 h Pseudokirchneriella subcapitata 56 mg/L IUCLID
<b>Distillates, petroleum, petroleum residues vacuum</b>	68955-27-1
Fish:	LC50 96 h Brachydanio rerio 48 mg/L [semi-static]
<b>Residues, petroleum, vacuum</b>	64741-56-6
Fish:	LC50 96 h Brachydanio rerio 48 mg/L [semi-static]
<b>Hydrogen sulfide</b>	7783-06-4
Fish:	LC50 96 h Lepomis macrochirus 0.0448 mg/L [flow-through]; LC50 96 h Pimephales promelas 0.016 mg/L [flow-through]
<b>Fatty acids, tall-oil, low-boiling</b>	Mixture



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Fish:	LC50 96 h Brachydanio rerio 50 - 100 mg/L [semi-static]
Algae:	EC50 72 h Pseudokirchneriella subcapitata >10 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 70 mg/L IUCLID

**Persistence and Degradability**

No information available for the product.

**Bioaccumulative Potential**

No information available for the product.

**Mobility**

No information available for the product.

**Other Toxicity**

No additional information available.

**Section 13 - DISPOSAL CONSIDERATIONS**

**Disposal Methods**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Section 14 - TRANSPORT INFORMATION**

**US DOT Information:**

UN/NA #: Not regulated

**IATA Information:**

UN#: Not regulated

**IMDG Information:**

UN#: Not regulated

**TDG Information:**

UN#: Not regulated

**Section 15 - REGULATORY INFORMATION**

**U.S. Federal Regulations**

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Hydrogen sulfide	7783-06-4
SARA 302:	500 lb TPQ

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SARA 313:	1 % de minimis concentration
CERCLA:	100 lb final RQ; 45.4 kg final RQ
OSHA (safety):	1500 lb TQ
SARA 304:	100 lb EPCRA RQ

**SARA Section 311/312 (40 CFR 370 Subparts B and C)**

**Acute Health: Yes Chronic Health: Yes Fire: Yes Pressure: No Reactivity: No**

**U.S. State Regulations**

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Asphalt	8052-42-4	Yes	Yes	Yes	Yes	Yes
Asphalt, oxidized	64742-93-4	No	No	No	Yes	No
Hydrogen sulfide	7783-06-4	Yes	Yes	Yes	Yes	Yes
Polycyclic aromatic hydrocarbons	130498-29-2	No	No	Yes	Yes	Yes

**Not listed under California Proposition 65**

**Canadian WHMIS Ingredient Disclosure List (IDL)**

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Hydrogen sulfide	7783-06-4
	1 %

**Component Analysis - Inventory**

Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Asphalt (8052-42-4)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Asphalt, oxidized (64742-93-4)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX

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Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	No
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Distillates, petroleum, petroleum residues vacuum (68955-27-1)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	No	No	No	Yes	No	Yes	No	No

Residues, petroleum, vacuum (64741-56-6)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes

Hydrogen sulfide (7783-06-4)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Polycyclic aromatic hydrocarbons (130498-29-2)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
No	No	No	No	No	No	No	No	No	No	No	Yes

Fatty acids, tall-oil, low-boiling (Mixture)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	No	No	No	Yes	No	Yes	Yes	No

### Section 16 - OTHER INFORMATION

**HMIS Rating**

Health: 2\* Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

**NFPA Ratings**

Health: 2 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

**Summary of Changes**

New SDS: May 18, 2015

## Safety Data Sheet

**Material Name: CCW MiraDRI 860**

**Product #:305145**

### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

### Other Information

#### Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. 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, CCWI Company must 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