

Material Safety Data Sheet

Heat and Oil Resistant Cover Stock

1. Product and company identification

Product name	: Heat and Oil Resistant Cover Stock
Material uses	: Uncured rubber compound.
Supplier/Manufacturer	: Fenner Dunlop 146 South Westwood P. O. Box 441 Toledo, OH 43697 Tel : (419) 534 5300 ext. 324 Fax : (419) 531-6284 Email : Dan.hoca@fennerdunlop.com
Code	: 5734
MSDS authored by	: KMK Regulatory Services inc.
In case of emergency	: CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887
Product type	: Solid.

2. Hazards identification

Emergency overview

Color	: Black.
Physical state	: Solid. [Rubber.]
Odor	: Aromatic. [Slight]
Signal word	: WARNING!
Hazard statements	: CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
Precautions	: Avoid exposure - obtain special instructions before use. Do not breathe dust. Do not get on skin or clothing. Avoid contact with eyes. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Inhalation	: Irritating to respiratory system.
Ingestion	: No known significant effects or critical hazards.
Skin	: Irritating to skin.
Eyes	: Irritating to eyes.

Potential chronic health effects

Chronic effects	: Contains material that may cause target organ damage, based on animal data.
Carcinogenicity	: Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure. Carbon black contained in this material is totally bounded, so cannot be inhaled under any normal circumstances of uses.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Target organs	: Contains material which may cause damage to the following organs: lungs, upper respiratory tract, eyes.

Over-exposure signs/symptoms

2. Hazards identification

- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Medical conditions aggravated by over-exposure** : Repeated skin exposure can produce local skin destruction or dermatitis. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated or prolonged exposure to the substance can produce target organs damage.

See toxicological information (section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Carbon black	1333-86-4	10 - 30
Extracts (petroleum), heavy paraffinic distillate solvent	64742-04-7	1 - 5
Zinc oxide	1314-13-2	1 - 5

Canada

Name	CAS number	%
Carbon black	1333-86-4	10 - 30
Extracts (petroleum), heavy paraffinic distillate solvent	64742-04-7	1 - 5
Zinc oxide	1314-13-2	1 - 5

Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special
Carbon black	1333-86-4	Not regulated.	10 - 30	1750 mg/m ³	2	0	0	
Extracts (petroleum), heavy paraffinic distillate solvent	64742-04-7	Not regulated.	1 - 5	2500 mg/m ³	2	1	0	
Zinc oxide	1314-13-2	UN3077	1 - 5	500 mg/m ³	1	0	0	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- Eye contact** : Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : No specific treatment. Treat symptomatically.

5. Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
 - Not suitable** : None known.
- Hazardous decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Water polluting material. May be harmful to the environment if released in large quantities. Hazardous to aquatic environment. May cause long-term adverse effects in the aquatic environment. Prevent leaking substances from running into the aquatic environment or the sewage system.
- Methods for cleaning up**
- Spill** : Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

- Handling** : Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep material in a cool well ventilated area.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
Carbon black	ACGIH TLV (United States, 1/2009). TWA: 3.5 mg/m ³ 8 hour(s).
Extracts (petroleum), heavy paraffinic distillate solvent	NIOSH REL (United States, 6/2008). TWA: 3.5 mg/m ³ 10 hour(s). TWA: 0.1 mg of PAHs/cm ³ 10 hour(s). OSHA PEL (United States, 11/2006). TWA: 3.5 mg/m ³ 8 hour(s).
Zinc oxide	NIOSH REL (United States, 6/2008). STEL: 10 mg/m ³ 15 minute(s). Form: Mist TWA: 5 mg/m ³ 10 hour(s). Form: Mist
	NIOSH REL (United States, 6/2008). CEIL: 15 mg/m ³ Form: Dust TWA: 5 mg/m ³ 10 hour(s). Form: Dust and fumes STEL: 10 mg/m ³ 15 minute(s). Form: Fume OSHA PEL (United States, 11/2006). TWA: 5 mg/m ³ 8 hour(s). Form: Fume TWA: 5 mg/m ³ 8 hour(s). Form: Respirable fraction TWA: 15 mg/m ³ 8 hour(s). Form: Total dust ACGIH TLV (United States, 1/2009). STEL: 10 mg/m ³ 15 minute(s). TWA: 2 mg/m ³ 8 hour(s).

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	Notations
Carbon black	US ACGIH 1/2009	-	3.5	-	-	-	-	-	-	-	
	AB 6/2008	-	3.5	-	-	-	-	-	-	-	
	BC 6/2008	-	3.5	-	-	-	-	-	-	-	
	ON 6/2008	-	3.5	-	-	-	-	-	-	-	
	QC 6/2008	-	3.5	-	-	-	-	-	-	-	
Extracts (petroleum), heavy paraffinic distillate solvent	AB 6/2008	-	5	-	-	10	-	-	-	-	[a]
	ON 6/2008	-	5	-	-	10	-	-	-	-	[a]
	QC 6/2008	-	5	-	-	10	-	-	-	-	[a]
Zinc oxide	US ACGIH 1/2009	-	2	-	-	10	-	-	-	-	
	AB 6/2008	-	10	-	-	-	-	-	-	-	[b]
		-	5	-	-	10	-	-	-	-	[c]
	BC 6/2008	-	2	-	-	10	-	-	-	-	[d]
	ON 6/2008	-	2	-	-	10	-	-	-	-	
	QC 6/2008	-	5	-	-	10	-	-	-	-	[c]

Form: [a]Mist [b]Dust [c]Fume [d]Respirable

Mexico

Ingredient	Exposure limits
Carbon black	NOM-010-STPS (Mexico, 9/2000). LMPE-CT: 7 mg/m ³ 15 minute(s). Form: smoke LMPE-PPT: 3.5 mg/m ³ 8 hour(s). Form: smoke
Extracts (petroleum), heavy paraffinic distillate solvent	NOM-010-STPS (Mexico, 9/2000). LMPE-CT: 10 mg/m ³ 15 minute(s). Form: mist LMPE-PPT: 5 mg/m ³ 8 hour(s). Form: mist
Zinc oxide	NOM-010-STPS (Mexico, 9/2000). LMPE-PPT: 10 mg/m ³ 8 hour(s). Form: Powder. LMPE-CT: 10 mg/m ³ 15 minute(s). Form: smoke LMPE-PPT: 5 mg/m ³ 8 hour(s). Form: smoke

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : Personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.
- Hygiene measures** : Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
- Respiratory** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Use appropriate NIOSH approved dust respirator if PEL/TLV may be exceeded.
- Hands** : Use gloves appropriate for work or task being performed. Recommended: Natural rubber (latex).
- Eyes** : Safety eyewear should be used when there is a likelihood of exposure. Recommended: Safety glasses with side shields.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Lab coat.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Physical state	: Solid. [Rubber.]
Auto-ignition temperature	: >246°C (>474.8°F)
Color	: Black.
Odor	: Aromatic. [Slight]
Specific gravity	: 1.276 g/cm ³
Solubility	: Insoluble in the following materials: cold water and hot water.

10. Stability and reactivity

Chemical stability	: The product is stable.
Conditions to avoid	: Avoid exposure - obtain special instructions before use.
Materials to avoid	: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Carbon black	LD50 Dermal LD50 Oral	Rabbit Rat	>3 g/kg >15400 mg/kg	- -

Chronic toxicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Carbon black	A4	2B	-	+	-	-
Extracts (petroleum), heavy paraffinic distillate solvent	-	2B	-	-	Possible	-
Zinc oxide	A4	-	-	-	-	-

12. Ecological information

Environmental effects	: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Water polluting material. May be harmful to the environment if released in large quantities. Zinc oxide contained in this material is totally bounded, so cannot be release in the environment under any normal circumstances of uses.
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Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Zinc oxide	Acute LC50 98 ug/L Acute LC50 1.1 to 2.5 ppm	Daphnia Fish	48 hours 96 hours

Other adverse effects	: No known significant effects or critical hazards.
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13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Empty containers or liners may retain some product residues. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

DOT/TDG/MXT/IMDG/IATA : Not regulated.

15. Regulatory information

United States

HCS Classification : Irritating material
Target organ effects

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Carbon black; Zinc oxide
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
Carbon black: Immediate (acute) health hazard, Delayed (chronic) health hazard; Zinc oxide: Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: Zinc oxide
Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 313

	<u>Product name</u>	<u>CAS number</u>	<u>Concentration</u>
Form R - Reporting requirements	: Zinc oxide	1314-13-2	1 - 5
Supplier notification	: Zinc oxide	1314-13-2	1 - 5

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

15 . Regulatory information

- State regulations**
- Connecticut Carcinogen Reporting:** None of the components are listed.
 - Connecticut Hazardous Material Survey:** None of the components are listed.
 - Florida substances:** None of the components are listed.
 - Illinois Chemical Safety Act:** None of the components are listed.
 - Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.
 - Louisiana Reporting:** None of the components are listed.
 - Louisiana Spill:** None of the components are listed.
 - Massachusetts Spill:** None of the components are listed.
 - Massachusetts Substances:** The following components are listed: Carbon black; Extracts (petroleum), heavy paraffinic distillate solvent; Zinc oxide
 - Michigan Critical Material:** None of the components are listed.
 - Minnesota Hazardous Substances:** None of the components are listed.
 - New Jersey Hazardous Substances:** The following components are listed: Carbon black; Zinc oxide
 - New Jersey Spill:** None of the components are listed.
 - New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.
 - New York Acutely Hazardous Substances:** None of the components are listed.
 - New York Toxic Chemical Release Reporting:** None of the components are listed.
 - Pennsylvania RTK Hazardous Substances:** The following components are listed: Carbon black; Zinc oxide
 - Rhode Island Hazardous Substances:** None of the components are listed.

California Prop. 65

When bonded in the material, carbon black is exempted from California proposition 65 warning statement.

<u>Ingredient name</u>	<u>Cancer</u>	<u>Reproductive</u>	<u>No significant risk level</u>	<u>Maximum acceptable dosage level</u>
Carbon black	Yes.	No.	No.	No.

Canada

- WHMIS (Canada)**
- Canadian lists**
 - Class D-2B:** Material causing other toxic effects (Toxic).
 - CEPA Toxic substances:** None of the components are listed.
 - Canadian ARET:** None of the components are listed.
 - Canadian NPRI:** The following components are listed: Zinc oxide
 - Alberta Designated Substances:** None of the components are listed.
 - Ontario Designated Substances:** None of the components are listed.
 - Quebec Designated Substances:** None of the components are listed.

Canada inventory : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Mexico

Classification :



International regulations

- International lists**
 - Australia inventory (AICS):** All components are listed or exempted.
 - China inventory (IECSC):** All components are listed or exempted.
 - Japan inventory:** Not determined.
 - Korea inventory:** All components are listed or exempted.
 - New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.
 - Philippines inventory (PICCS):** All components are listed or exempted.

15 . Regulatory information

- Chemical Weapons Convention List Schedule I Chemicals : Not listed
- Chemical Weapons Convention List Schedule II Chemicals : Not listed
- Chemical Weapons Convention List Schedule III Chemicals : Not listed

16 . Other information

United States

Label requirements : CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

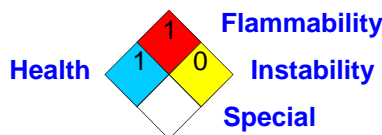
Hazardous Material Information System (U.S.A.) :

Health	*	1
Flammability		1
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



Canada

WHMIS (Canada) :



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- Date of previous issue : 08/30/2006
- Version : 2

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

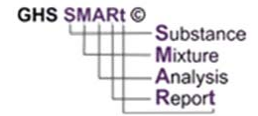
16 . Other information



Dr. Luc Séguin, PhD chemist, 25 years as a professional in regulatory compliance



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