Material Safety Data Sheet (MSDS)



Product Snow

1. Chemical Product and Company Identification

Product Snow

Synonyms: While Petrolatum USP (All Grades). Cream; Lily; Special Lily; Snow; Super; Regent; Uflima; Regent-K;, Pet Blend B-5, Pet Blend 497, Pet Blend 576, Pet Blend 730, Pe1 Blend 4531, 4626; EXK 570

MSDS ID PEN17ZO-OO·C Manufacturer Calumet Specially Products Partners 2780 Waterfront Pkwy E.Suite 200 Indianapolis, IN 46214

Phone Number (800) 245-3952 Emergency Phone CHEMTREC (800) 424-9300 CHEMTREC International (703) 527-3887 Revision Date 11/28/2006



2 Composition and Information on Ingredients

Ingredient	CAS Number	Weight%	ACGJH TLV	PEL	STEL
Petrolatum	8009-03-8	100 %	0		

3. Hazard Identification

Emergency Overview:

This material is not considered hazardous according to OSHA criteria.

Eye: Not expected to be an eye irritant.



Page 2 of 8 Print Rev. Date 08/04/2008 MSDS ID PEN1720-00-C Snow

absorption have been reported.

Inhalation (Breathing): Expected to have a low degree of toxicity by inhalation.

Ingestion (Swallowing): No harmful effects expected from ingestion.

Signs and Symptoms: Effects of overexposure may include irritation of the digestive tract nausea diarrhea

4. First Aid Information

Eye:

If irritation or redness develops from exposure to fumes generated from molten material, move victim away from exposure and into fresh air. Flush eyes with clean water. If irritation or redness persists, seek medical attention. For contact with the molten material,gently open eyelids and flush affected eye(s) with cold, not icy: waler. Seek immediate medical attention. Jf irritation or redness develops from exposure, flush eyes with clean water. If symptoms persist, seek medical attention.

Skin:

For contact with molten material, leave material on skin and flush or immerse affected area(s) using cold, not icy, water. Seek immediate medical attention.

Inhalation (Breathing):

If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

hgestion (Swallowing):

First aid is not normally required; however, if swallowed and symptoms develop, seek medical attention.

5. Fire Fighting Measures

Flash Point	>399°F / >204°	С
FP Method	COC, ASTM 09	92

Unusual Fire & Explosion Hazards:

This material may bum, but will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire. Vapors are heavier than air and can accumulate in low areas.

Extinguishing Media:

Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials healed.above 212"F. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Fire Fighting Instructions:

For fires beyond the incipient slage, emergency responders in the immediate hazard area

Page 3 of 8 Print Rev. Date 0810412008 MSDS ID PEN1720-00-C Snow

should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area, keep unauthorized personnel oul. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk.

Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if i1 can be done with minimal risk. Avoid spreading burning liquid with water usedfor cooling purposes.

See Section 9:

For Flammable Properties including Flash Point and Flammable (Explosive) Limits

6. Accidental Release Measures

Personal Precautions:

This material may burn, but will not ignite readily. Keep all sources of ignition away from spill/ release.

Spill precautions:

Stay UP\1ind and away from spill/release . Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if It can be done with minimal risk. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8).

Methods for cleaning up:

Immediate cleanup of any spill is recommended. Notify fire authorities and appropriate federal, state, and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center (phone number 800-424-8802).

7. Handling and Storage

Handling:

Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTIvi D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Section 8).

Do not wear contaminated clothing or shoes. Use good personal hygiene practices.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cul, weld, braze, solder, drill, grind, or expose such corilainers to heat. flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

° har o nri-inn rm nr in tanks which contain or have contained this material, refer to OSHA



Page 4 of 8 Print Rev. Date 08/04/2008 MSDS ID PEN1720-00-C Snow

regulations, ANSIZ49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

Storage:

Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage .

8. Exposure Controls and Personal Protection

Component ACGIH Petrolatum 5 mg/m3TWA 10 rng/rn3 STEL As Oil Mist, if Generated OSHA 5 mg/m3 TWA As Oil Mist, if Generated Other:

2 mg/m3 TWA As Paraffin Wax Fumes, If Generated

Note:

State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

Engineering Controls:

If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits additional engineering controls may be required.

Eye/Face:

Not normally required for solid material. Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended when exposed to molten wax. Depending on conditions of use, a face shield may be necessary. Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.

Skin:

Not normally required for solid material. The use of thermally resistant gloves is recommended when there is potential for exposure to molten wax.

Respiratory:

No respiratory protection is required when working with the solid material. If airborne concentrations of wax fumes, generated from molten wax, are expected to exceed exposure limits, a NIOSH certified air purifying respirator with a Type 95 (R or P) particulate filter may be used.

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANS IZ88.2 requirements must be followed whenever workplace conditions warrant a respirator's use

Other Protective Equipment:

A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

Page 5 of 8 Prinl Rev. Dale 0810412008 MSDS ID PEN1720-00-C Snow

Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufacturers to confirm the performance of their products.

9. Physical and Chemical Properties

Semi-solid
0.855
While Opaque
None al room lemperalure
No! app!icab!e
Nodata
120-140'F / 49-60'C
Insoluble
No data
>1

Note:

Unless otherwise stated, values are determined at 20.c (68°F) and 760 mm Hg (1 atm).

Odor Threshold: No data Partition Coefficient (n-octanol/water) (Kow): No data Autoignition Temperature: No data

10. Stability and Reactivity

Stability:

Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to Avoid: Avoid all possible sources of ignition (see Sections 5 and 7).

Materials To Avoid (Incompatible Materials): strong oxidizing agents.

Hazardous Decomposition Products: Combustion can yield carbon, nitrogen and sulfur oxides.

Hazardous Polymerization: Will nol occur.

11. Toxicological Information

Acute Data:

Oral LDSO >5 g/kg (Ra!) {based on similar materials)

Dermal LOSO > 2 g/kg {Rat) (based on similar materials)



Page 6 of 8 Print Rev. Date 08/04/2008 MSDS ID PEN1720-00-C Snow

Inhalation LCSO No Data

12. Ecological Information

Not evaluated.

13. Disposal Considerations

The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

This material. if discarded as produced, would not be a federally regulated RCRA "listed" hazardous waste and is not believed to exhibit characteristics of hazardous waste. See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties. It is possible that the aterial as produced contains constituents which are not required to be listed in the MSDS but could affect the hazardous waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

Container contents should be completely used and containers should be emptied prior to discard.

14. Transportation Information

U.S.Department of Transportation (DOT) Shipping Description: Not regulated Note: Material is unregulated unless shipped by land in a packaging having a capacity of 3, 500 gallons or more. Then the provisions of 49 CFR, Part 130 apply.

International Civil Aviation Org./International Air Transport Assoc.(ICAO/IATA) Shipping Description: Not regulated

International Civil Aviation Org. /International Air Transport Assoc. (ICAO/IAT Proper Shipping Name: Not regulated

Ltd. Qty Passenger Aircraft Cargo Aircraft Only

Packaging Instruction #: Max.NetQty.PerPackage:

15. Regulatory Information

CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds): This material does not contain any chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372.

CERCLA/SARA- Section 311/312 (Title III Hazard Categories) Acute Health: No

Page 7 of *B* Print Rev. Date 08/04/2008 MSDS ID PEN1720-00-C Snow

Chronic Health: I\Jo Fire Hazard: No Pressure Hazard: No Reactive Hazard: No

CERCLA/SARA - Section 313 and 40 CFR 372: This materialdoes not contain any chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372.

EPA (CERCLA) Reportable Quantity (in pounds): This material does not contain any chemicals with CERCLA Reportable Quantities.

California Proposition 65:

This material does not contain an11 chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm.

Carcinogen Identification:

This material has not been identified as a carcinogen by NTP, IARC, or OSHA. See Section 11 for carcinogenicity information of individual components, if any.

Canadian Regulations:

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

WHMIS Hazard Class: Not Regulated

National Chemical Inventories: Component TSCA DSL NDSL EINECS ELINCS ENCS CHINA KECL PICCS AICS Petrolatum X X X X X X X X 8009-03-8

U.S. Export Control Classification Number: EAR99

16. Other Information

Chemical Family: Petrolatum

Emergency Telephone Numbers: California Poison Control System: 800-356-3219

Issue Date: 28-I\Jov-2006 Status: Final Revised S clions or Basis for Revision: Formal change Added facility synonyms- SEE SECTIOI'l! 1. Iv1SDS Code:787360

MSDS Legend: ACGIH =American Conference of Governmenta | Industrial Hygienists; CAS = Chemical Abstracts Service Registry; CEILIhJG =Ceiling Limit (15 minutes): CERCLA =The Comprehensive Environmental Response, Compensation, and Liability Act; EPA= Environmental Protection Agency; !ARC=International Agency for Research on Cancer; LEL = Lower Explosive Limit; NE = Not Established; NFPA = National Fire Protection Association; NTP = National Toxicology Program; OSHA= Occupational Safety and Health Administration; PEL = Permissible Exposure Limit (OSHA); SARA = Superfund Amendments and Reauthorization Act; STEL =Short Term Exposure Limit (15 minutes); TLV = Threshold Limit Value (ACGIH); TWA= Time Weighted Average (8 hours); UEL = Upper Explosive Limit; WHMIS = Worker Hazardous Materials Information System (Canada)

Disclaimer of Expressed & implied Warranties;

.The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INF.ORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormaluse or from any failure *to* adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.





MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Materialname	Drakeol®7LT MIN OIL NF
Version#	07
Revision date	08-11-2011
CAS#	8042-47-5
Manufacturer information	Calumet Specialty Products Partners, L.P. 2780 Waterfront Pkwy E. Dr. Suite 200 Indianapolis, IN 46214 United States www.calumetlubricants.com Technical Services 317-328-5660 CHEMTREC International 703-527-3887

2. Hazards Identification

OSHA regulatory status	This product is considered not hazardous under29 CFR 1910.1200 (Hazard Communication).
Potential environmental effects	Ecological injuries are not known or expected under normal use.

3. Composition / Information on Ingredients

Non-hazardous components	CAS#	Percent	
White mineral oil	8042-47-5	100	

4. First Aid Measures

First aid procedures	
Eye contact	Product is non-irritating.
Skin contact	Product is non-irritating.
Inhalation	Not applicable.
Ingestion	Not applicable.

5. Fire Fighting Measures

Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Carbon dioxide (C02). Dry chemicals.
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters	
Protective equipment and precautions for firefighters	Wear suitable protective equipment.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray.
6. Accidental Release Meas	sures

Personal precautions	Keep unnecessary personnel away.
Methods for containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Methods for cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers.
	Small Spills:Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water. Scrub the area with detergent and water.
	Never return spills in original containers for re-use. For waste disposal, see section 13 of the MSOS.
7. Handling and Storage	
Handling	DO NOT handle, store or open near an open flame, sources of heat or sources of ignition.Protect material from direct sunlight. Do not get this materialin contact with eyes. Avoid contact with skin. Avoid prolonged or repeated contact with skin. Use only inwell-ventilated areas.Avoid prolonged exposure.
Storage	Keep away from heat and sources of ignition. Store in a well-ventilated place. Keep container tightly closed. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Personal protective equipment

Eye / face protection	Do not get in eyes. Chemical goggles are recommended.
Skin protection	Wear appropriate chemical resistant clothing. Chemical resistant gloves.
General hygiene considerations	Do not get in eyes. Avoid contact with skin: Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Product is water-white liquid.
Physical state	Liquid.
Form	Liquid.
Color	Transparent Water-White
Odor	None.
Boiling point	>5g9 °F (> 315 °C) estimated
Flashpoint	360 °F (182.2 °C) ASTM D92
Auto-ignition temperature	5792 °F (304 °C) estimated
voe	4 % EPA Method 24
Viscosity	70 SUS ASTM 02161
Viscosity temperature	100 °F (37.8 °C)
Pour point	-17 °F (-21.2 °C) ASTM D97
Other data	
Density	08749 g/cm3
Kinematic viscosity	< 13.6 mm ² /s ASTM D445
Kinematic viscosity temp	104 °F (40 °C)

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
Incompatible materials	Not available.
Hazardous decomposition products	Not available.

11. Toxicological Information

Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Skin corrosion/irritation	Product is non-irritating.

12. Ecological Information

Ecotoxicity	This product has no known eco-toxicological effects.
Persistence and degradability	Notavailable.

13. Disposal Consideration	าร				
Disposalinstructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.				
Contaminated packaging	ontaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disper				
14. Transport Information					
DOT NON-BULK					
Not regulated as dangerous goods					
DOT BULK					
Not regulated as dangerous goods	i.				
15. Regulatory Information	1				
US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S.EPA TSCA Inventory List.					
	CERCLA/SARA Hazardous Substances - Not applicable.				
Drug Enforcement Administ	ration (DEA).List 2, Essential Chemicals (21 CFR 1310.02(b) and 13	31004(f)(2)			
Not regulated DEA Essential Chemical Co Not regulated	de Number				
Drug Enforcement Administr Not regulated DEA Exempt Chemical Mixto	ation (DEA). List 1 & 2 Exempt Chemical Mixtures (21CFR1310.12 ures Code Number	2{c))			
Not regulated					
CERCLA (Superfund) reportable	quantity				
None					
Superfund Amendments and Re	authorization Act of 1986 (SARA)				
Hazard categories	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No				
Section 302 extremely hazardous substance	No				
Section 311 hazardous chemical	No				
Inventory status					
Country(s) or region	Inventory name	On inventory {yes/no)*			
Australia	Australian Inventory of Chemical Substances (AICS)				
Canada	Domestic Substances List (DSL)	Yes			
Canada	Non-Domestic Substances List (NDSL)				
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes			
European Inventory of Existing Commercial Chemical					

EuropeEuropean Inventory of Existing Commercial Chemical
Substances (EINECS)YesEuropeEuropean List of Notified Chemical Substances (ELINCS)NoJapanInventory of Existing and New Chemical Substances (ENCS)YesKoreaExisting Chemicals List (EGL)Yes

Country{s) or region	Inventory name	On inventory (yes/nor
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
A "Yes" indicates that all compo	nents of this product comply with the inventory requirements administered by the g	overning country(s)
ate regulations	This product does not contain a chemical known to the State of Californ defects or other reproductive harm.	nia to cause cancer, birth

16. Other Information

Further information	HMJS® is a registered trade and service mark of the NPCA.
HMIS® ratings	Health: O Flammability:1 Physical hazard:0
NFPA ratings	Health:0 Flammability:1 Instability:0
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.
Issue date	08-11-2011
This data sheet contains changes from the previous version in section(s) :	Physical & Chemical Properties: Multiple Properties

$bigler_{\rm Specialty \ Oils \ LP}$

Material Safety Data Sheet

Date of Issue: Aug 1, 2007

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: MaxPar White Mineral Oil USP and NF Synonyms:

MaxPar NF 50 MaxParNF 70 MaxPar NF 80 MaxPar NF 90 MaxPar NF 100 MaxPar GD0-75 MaxPar USP 175 MaxPar USP 210 MaxPar USP 350 MaxPar BSO 75

MaxPar USP 21

General Uses: White Mineral Oil Chemical Family: Petroleum Hydrocarbon Responsible Party:

Bigler Specialty Oils, LP PO Box 2408 Houston, TX 77252 713-864-3303

Emergency Overview 24 Hour Emergency Telephone Numbers: Spill, Leak, Fire or Accident Call CHEMTREC: North America:(800) 424-9300 Others: (703) 527-3887 (collect) California Poison Control System: (800) 356-3129 Health Hazards/Precautionary Measures:Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Physical Hazards/Precautionary Measures: Keep away from all sources of ignition. Appearance: Clear and bright, Water-white Physical Form: Liquid Odor:None

NFPA 704 Hazard Class

Health: 0 Flammability: 1 Instability: 0 Legend: 0 (Least), 1 (Slight), 2 (Moderate), 3 (High), 4 (Extreme)

2. COMPOSITION /INFORMATION ON INGREDIENTS

Non-Hazardous Components

Component	Concentration (wt%)	ACGIH	OSHA	NIOSH	Other:
White Mineral Oil 8042-47-5	100	5 mg/m TWA 10 mg/m STEL	5 mglm	2500 mg/m IDLH	As Oil Mist, if generated
					5 mg/m NOHSC TWA

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your bcal agencies, for further information. 1%=10,000 PPM. NE=Not Established

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3. HAZARD IDENTIFICATION

Potential Health Effects Eye: Contact may cause mild eye irritation including stinging, watering, and redness.

Skin: Contact may cause mild skin irritation including redness, and a burning sensation. Prolonged or repeated contact can worsen irritation by causing drying and cracking of the skin leading to dermatitis (inflammation). Not acutely toxic by skin absorption, but prolonged or repeated skin contact may be harmful (see Section 11).

Inhalation (Breathing): No information available. Studies by other exposure routes suggest a low degree of toxicity by inhalation.

Ingestion (wallowing): No harmful e.ffects reported fr m ingestion.

Signs and Symptoms: Effects of overexposure may include irritation of the digestive tract, irritation of the respiratory tract, nausea and diarrhea.

Cancer: There is inadequate information to evaluate the cancer hazard of this material. See Section 11 for information on the individual components. if any.

Target Organs: Inadequate evidence available for this material. See Section 11 for target-organ toxicity information of individual components, if any.

Developmental:No data available for this material.

Pre-Existing Medical Conditions:Conditions aggravated by exposure may include skin disorders.

4. FIRST AID MEASURES

Eye: If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

Skin:Wipe material from skin and remove contaminated shoes and clothing. Cleanse affected area(s) thoroughly by washing with mild soap and water and, if necessary, a waterless skin cleanser. If irritation or redness develops and persists, seek medical attention.

Inhalation (Breathing): If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Ingestion (Swallowing): First aid is not normally required; however, if swallowed and symptoms develop, seek medical attention.

5. FIRE-FIGHTING MEASURES

Flammable Properties:

 Flash Point:
 >320°F / 177°C

 Test Method:
 Cleveland Open Cup (COC), ASTM D92

 OSHA Flammability Class:
 Not applicable

 LEL (vol % in air):
 No data

 UEL (vol % in air):
 No data

 ULL (vol % in air):
 No data

 Uusual Fire & Explosion Hazards: This material may burn, but will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire.

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Extinguishing Media: Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F. Carbon dioxide can displace oxygen. Use caution when applying carbon doxide in confined spaces.

Fire Fighting Instructions: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate immediate hazard area, keep unauthorized personnel out. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk.

6. ACCIDENTAL RELEASE MEASURES

This material may burn, but will not ignite readily. Keep all sources of ignition away from spillrelease.

Stay upwind and away from spil/release. Notify persons downwind of the spil/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spil/release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8).

Prevent'spilled material From entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike Far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material.Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center (phone number 800-424-8802).

7. HANDLING AND STORAGE

Handling:Do not enter confined spaces such as tanks or pits without Following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Sections 2 and 8).

Do not wear contaminated clothing or shoes. Use good personal hygiene practices.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

Storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away From heat and all sources of ignition. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

8. EXPOSURE CONTROLS /PERSONAL PROTECTION

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), additional engineering controls may be required. Personal Protective Equipment (PPE):

Respiratory: A NIOSH certified air purifying respirator with a Type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits (see Section 2).

Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a NIOSH approved self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode if there is potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Skin: The use of gloves impervious to the specific material handled is advised to prevent skin contact and possible irritation (see manufacturers literature for information on permeability).

Eye/Face: Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.

Other Protective Equipment: A source of clean water should be available in the work area for flushing eyes and skin.

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Impervious clothing should be worn as needed.

Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufacturers to confirm the performance of their products.

9. PHYSICAL AND CHEMICAL PROPERTIES

Note: Unless otherwise stated, values are determined at 20°c (68°F) and 760 mm Hg (1 atm). Appearance : Clear and bright, Water-white Physical Form: Liquid Mild petroleum Odor: Odor Threshold: No data pH: Not applicable Vapor Pressure (mm Hg): <1 Vapor Density (air=1): >1 Boiling Point/Range: No data Melting/Freezing Point: No data Solubility in Water: Insoluble Partition Coefficient (n-octanollwater) (Kow): No data Specific Gravity: 0.82-0.88 Viscositv: 50 SUS@100-650SUS @100 Percent Volatile : Nil Evaporation Rate (nBuAc=1): Nil >320°F / 177°C Flash Point: Test Method: Cleveland Open Cup (COC),ASTM 092 LEL (vol % in air): No data UEL (vol % in air): No data Autoignition Temperature: No data Decomposition Temperature : No data

10. STABILITY AND REACTIVITY

Stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. Conditions to Avoid: Extended exposure to high temperatures can cause decomposition. Materials to Avoid (Incompatible Materials):Avoid contact with strong oxidizing agents. Hazardous Decomposition Products: Combustion can yield carbon, nitrogen, sulfur, phosphorus, and zinc oxides. Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Chronic Data:

The petroleum base oils contained in this product have been highly refined by a variety of processes including severe hydrocracking/hydroprocessing to reduce aromatics and improve performance characteristics. All of the oils meet the IP-346 criteria of less than 3 percent PAH's and are not considered carcinogens by NTP, IARC, or OSHA. *Target Organ:* Administration of certain mineral hydrocarbon white oils in the diet to Fischer 344 rats at 1500 mg/kg/day for 90 days resulted in the formation of microgranulomas in the liver. However, this response was not observed in studies conducted with other rat strains or dogs. Microgranulomas like those observed in the Fischer 344 rat studies have not been observed in humans.

12. ECOLOGICAL INFORMATION

Lubricant oil basestocks are complex mixtures of hydrocarbons (primarily branched chain alkanes and cycloalkanes) ranging in carbon number from C15 to C50. The aromatic hydrocarbon content of these mixtures varies with the severity of the refining process. White oils have negligible levels of aromatic hydrocarbons, whereas significant proportions are found in unrefined basestocks. Olefins are found only at very low concentrations. Volatilization is not significant after release of lubricating oil basestocks to the environment due to the very low vapor pressuFe of the hydrocarbon constituents. In water, lubricating oil basesfocks will float and will spread at a rate that is viscosity dependent. Water solubilities are very low and dispersion occurs mainly from water movement with adsorption by



sediment being the major fate process. In soil, lubricating oil basestocks show little mobility and adsorption is the predominant physical process.

Both acute and chronic ecotoxicity studies have been conducted on lubricant base oils. Results indicate that the acute aquatic toxicities to fish, Daphnia, Ceriodaphnia and algal species are above 1000 mg/l using either water accommodated fractions or oilin water dispersions. Since lubricant base oils mainly contain hydrocarbons having Carbon numbers in the range C15 to C50, it is predicted that acute toxicity would not be observed with these substances due to bw water solubility. Results from chronic toxicity tests show that the no observed effect level (NOEL) usually exceeds 1000 mg/l for lubricant base oils with the overall weight of experimental evidence leading to the conclusion that lubricant base oils do not cause chronic toxicity to fish and invertebrates.

Large volumes spills of lubricant hase oils into water will produce a layer of undissolved oil on the water surface that will cause direct physicalfouling of organisms and may interfere with surface air exchange resulting in lower levels of dissolved oxygen. Petroleum products have also been associated with causing taint in fish even when the latter are caught in lightly contaminated environments. Highly refined base oils sprayed onto the surface of eggs will result in a failure to hatch.

Extensive experience from laboratory and field trials in a wide range of crops has confirmed that little or no damage is produced as a result of either aerosol exposure nr direct application of oil emulsion to the leaves of crop plants. Base oils incorporated into soil have resulted in little or no adverse effects on seed germination and plant growth at contamination rates up to 4%.

13. DISPOSAL CONSIDERATIONS

This material under most intended uses would become used oil due to contamination by physical or chemical impurities. RECYCLE ALL USED OIL. While being recycled, used oils regulated by 40 CFR 279. Use resulting in chemical or physical change or contamination may also subject it to regulation as hazardous waste. Under federal regulations, used oil is a solid waste managed under 40 CFR 279. However, in California, used oil is managed as hazardous waste until tested to show it is not hazardous. Consult state and local regulations regarding the proper handling of used oil. In the case of used oil, the intent to discard it may cause the used oil to be regulated as hazardous waste.

Contents should be completely used and containers emptied prior to discard. Rinsate may be considered a RCRA hazardous waste and must be disposed of with care and in compliance with federal, state and local regulations. Large empty containers, such as drums, should be returned to he distributor or a drum reconditioner. To assure proper disposal of small empty containers, consult with state and local regulations and disposal authorities.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT) Shipping Description: Not regulated Note: Material is unregulated unless shipped by land in a packaging having a capacity of 3,500 gallons or more. Then the provisions of 49 CFR, Part 130 apply. International Maritime Dangerous Goods (IMDG) Shipping Description:Not regulated International Civil Aviation Org./International Air Transport Assoc. (ICAO/IATA) Shipping Description: Not regulated

15. REGULATORY INFORMATION

U.S. Regulations : CERCLA/SARA - Section 311/312 (Title III Hazard Categories) Acute Health: No Chronic Health: No Fire Hazard: No Pressure Hazard: No Reactive Hazard: No CERCLA/SARA - Section 313 and 40 CFR 372: This material contains the following chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372: -None Known--EPA (CERCLA) Reportable Quantity (in pounds): --None Known--CERC A/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds): 1920 Nr. Memorial Way, Suite 201, Houston, TX 77007



This material contains the following chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372: -- None Known --

California Proposition 65:

Warning: This material contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Heath & Safety Code Section 25249.5): -- None Known --Carcinogen Identification: This material has not been identified as a carcinogen by NTP, IARC, or OSHA.See Section 11 for carcinogenicity information of individual components. if any, TSCA: All components are listed on the TSCA inventory. International Regulations: Canadian Regulations: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR. Domestic Substances Ust: Listed WHMIS Hazard Class: Not Regulated International Inventories: This material is listed on the following inventories: Australia (AICS) Canada (DSL) China Europe (EINECS) Korea (Existing and Evaluated Chemical Substances) Philippines (PICCS) Japan (ENCS)

16. OTHER INFORMATION

Disclaimer of Expressed and implied Warranties:

The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO lifs USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their owri determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license



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MATERIAL SAFETY DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Issue Date: 1/1/2010

Frank B. Ross Co. 970 HNew Brunswick Avenue Rahway, NJ 07065 Infonnation Phone Number: 732-669-0810 Product Name: Ceresine Wax - All Grades Synonyms/Chemical Name: Petroleum Wax Mixture Formula: N/A

2. COMPOSITION/INFORMATION ON INGREDIANTS

EXPOSURE LIMITS CASNUMBER PERCENT COMPONENT NIA See Below

If heated to decomposition, fumes generated may result in respiratory irritation. ACGIH exposure limit for Paraffin Wax fume is TLV-TWA OF 2mg/m3. When finely divided, inhalation of dust may cause irritation Mucous membranes and the respiratory tract. OSHA permissible Exposure limit (PEL-TWA) and ACGIN threshold limit value (TLV-TWA) for respirable dust 5mg/m3. total nuisance dust OSHA PEL-TWA: 15mg/m3; total dust ACGIH TLV-TWA 10mg/m3. Not expected to be a problem under normal condition of use.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: White/Yellow waxy solid, practically odorless. Will bum under fire conditions. Vapors and fumes from heated product may cause eye and respiratory irritation. Contact with molten product may cause thermal bums.

POTENTIAL HEALTH EFFECTS

INGESTION: No significant adverse effects are expected. This material has low oral toxicity. It is neither digested nor absorbed but may induce a mild laxative effect.

INHALTION: Vapors and fumes from heated product may cause irritation of the nose, throat and lungs. EYE: Vapors and fumes from the heated product may cause irritation.

SKIN: Ceresine wax is not considered a skin irritant or a sensitizer. Prolonged or repeated contact may cause discomfort. Contact with heated product may cause thermal burns.

CHRONIC EFFECTS: No adverse effects from chronic exposure are currently known.

CARCINOGENICITY: This product is not listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE : Pre-existing skin conditions such as dermatitis may be aggravated by exposure to this material.

4.FIRST AID MEASURES

EYE:First check victim for contact lenses and removed by present. Flush victim's eyes with large quantities of water removed by present. Flush victim's eyes with large quantities of water removed by 13.864.3303 F713.864.3343 and contact a physician if irritation persists.