



Material Safety Data Sheet

Section 1: Product and Company Identification

Product name: Arctic Winter Grease

Product code: 1542, 1543, 1562

Material uses: Petroleum Based Grease.

Supplier/Manufacturer:

BOSS LUBRICANTS

112, 6303 – 30TH STREET SE

Calgary, AB

T2C 1R4

Validation date: January 16, 2015

Tel: 403-279-2223

In case of emergency: 800-844-9457

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Section 2: Hazards Identification

Physical state: Solid. [Semi-solid gel.]

Odor: Petroleum. [Slight]

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview: MAY CAUSE EYE AND SKIN IRRITATION. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

Avoid exposure - obtain special instructions before use. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Risk of cancer depends on duration and level of exposure. Wash thoroughly after handling.

Potential acute health effects

Inhalation: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Skin: Slightly irritating to the skin.

Eyes: Slightly irritating to the eyes.

Potential chronic health effects

Chronic effects: No known significant effects or critical hazards.

Carcinogenicity: Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.

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.

Over-exposure signs/symptoms

Inhalation: No specific data.

Ingestion: No specific data.

Skin: Adverse symptoms may include the following: irritation redness

Medical conditions known: None

Eyes: Adverse symptoms may include the following: irritation watering redness aggravated by over- exposure

See toxicological information (section 11)

Section 3: Composition/Information on Ingredients

MATERIALS OR COMPONENTS	%W	CAS NUMBER	CARCINOGEN OSHA OR IARC
Mineral Oil	35-45	64742-52-5	No
Mineral Oil	20-30	64742-65-0	No
Mineral Oil	15-25	64742-62-7	No
Lithium 12-Hydroxystearate Sebacate	2-4	68815-49-6	No
Polyethylene	0-2	9002-88-4	No
Zinc Alkyldithiophosphate	1-2	68457-79-4	No
Calcium Carbonate	1-3	471-34-1	No
Zinc Oxide	4-6	1314-13-2	No

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.

Section 4: First Aid Measures

Eye Contact: Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. 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: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Notes to physician: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 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 thermal: Oxides of carbon, lithium, sulfur, zinc, molybdenum, hydrogen sulfide **decomposition products**

Special protective: Fire-fighters should wear appropriate protective equipment and self-contained breathing equipment for firefighters apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6: Accidental Release Measures

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).



Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill: Move containers from spill area. Approach release from upwind. 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.

Section 7: Handling and Storage

Handling Storage: Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8: Exposure Controls/Personal Protection

Product name	Exposure limits
Distillates (petroleum), hydrotreated light paraffinic	ACGIH TLV (United States). TWA: 5 mg/m ³ 8 hour(s). Form: Mist OSHA PEL (United States).
Distillates (petroleum), hydrotreated heavy	TWA: 5 mg/m ³ 8 hour(s). Form: Mist naphthenic OSHA PEL (United States). STEL: 10 mg/m ³ TWA: 5 mg/m ³
Titanium dioxide	ACGIH TLV (United States, 1/2007). TWA: 10 mg/m ³ 8 hour(s). OSHA PEL (United States, 11/2006). TWA: 15 mg/m ³ 8 hour(s). Form: Total dust

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, 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: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures: 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. Appropriate techniques should be used to



remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Eyes: Safety glasses.

Skin: Lab coat, coveralls

Respiratory: A respirator is not needed under normal and intended conditions of use.

Hands: Natural rubber (latex).

Personal protective equipment (Pictograms)



Protective equipment 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.

Section 9: Physical and Chemical Properties

Physical state:	Solid. [Semi-solid gel.]
Flash point:	425°F (Test Method D-92)
Color:	White.
Odor:	Petroleum. [Slight]
Boiling/condensation point:	700°F
Melting/freezing point:	>260°C (>500°F)
Vapor pressure:	<0.13 kPa (<1 mm Hg)
Solubility:	Insoluble in the following materials: cold water and hot water.
Specific Gravity:	0.87@ / °C

Section 10: Stability and Reactivity

Stability: The product is stable.

Hazardous polymerization: Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid: exposure - obtain special instructions before use.

Materials to avoid: Strong Oxidizers Bromine, Chromic Acid

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced. CO & CO² if incomplete combustion

Conditions of reactivity: Slightly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.

Non-flammable in the presence of the following materials or conditions: Avoid open flame.

Section 11: Toxicological Information

Acute toxicity

Product/ingredient name	Species	Dose	Result	Exposure
Distillates (petroleum), hydrotreated heavy naphthenic	Rabbit	>5 g/kg	LD50 Dermal	-
	Rat	>5 g/kg	LD50 Oral	-

Inhalation: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Skin: Slightly irritating to the skin.

Eyes: Slightly irritating to the eyes.

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Titanium dioxide	A4	2B	-	None.	-	-

Section 12: Ecological Information

Environmental effects: No known significant effects or critical hazards. **Aquatic ecotoxicity**

Product/ingredient name	Species	Exposure	Result
Titanium dioxide	Daphnia	48 hours	Acute EC50 >1000000 ug/L
	Fish	96 hours	Acute LC50 >1000000 ug/L

Section 13: Disposal Considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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.

Section 14: Transport Information

Regulatory information

DOT/ IMDG/ IATA: Not regulated.

TDG: Not regulated

United States HCS Classification: Carcinogen

U.S. Federal regulations: TSCA 8(a) PAIR: Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts **United**

States inventory (TSCA 8b): All components are listed or exempted.

TSCA 8(d) H and S data reporting: Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts: 2006

Section 15: Regulatory Information

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: Titanium dioxide

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Titanium dioxide: Delayed (chronic) health hazard

Clean Water Act (CWA) 307: tris[bis(2-ethylhexyl)dithiocarbamate-s,s']antimony; Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts; Ammonia, anhydrous; Zinc oxide

Clean Water Act (CWA) 311: Ammonia, anhydrous

Clean Air Act (CAA) 112 accidental release prevention: Hydrogen sulfide; Ammonia, anhydrous

Clean Air Act (CAA) 112 regulated flammable substances: No products were found. **Clean Air Act (CAA) 112 regulated toxic substances:** Hydrogen sulfide; Ammonia, anhydrous

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: Distillates (petroleum), hydrotreated light paraffinic; Titanium dioxide **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: Titanium dioxide

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: Titanium dioxide

Rhode Island Hazardous Substances: None of the components are listed.

International regulations International lists: This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

Section 16: Other information

Label requirements: MAY CAUSE EYE AND SKIN IRRITATION. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

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

Health	*	2
Fire hazard		1
Physical Hazard		0
Personal protection		B

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal

See section 8 for more detailed information on personal protection.



References: ANSI Z400.5, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

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Special 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.