

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name: STARFIRE FULL SYNTHETIC GEAR LUBRICANTS 75W90, 75W140, 80W140

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Gear Oil
Recommended restrictions: Not applicable

1.3. Details of the supplier of the safety data sheet

Manufacturer: PennStar
6 Horwith Dr.
Northampton, PA 18067
Information Phone: +01(484)275-7990

1.4. Emergency telephone number

Emergency phone number: CHEMTREC: +1 (800) 424-9300 International: +01 (703) 527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Sensitisation Category 1

2.2. Label elements

GHS Hazard Symbols



Signal Word

Warning

Hazard Statements

H317 - May cause an allergic skin reaction.

Precautionary Statements

Prevention

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P321 - Specific treatment (see section 4).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Disposal

P363 - Wash contaminated clothing before reuse.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

Hazards not otherwise classified:

Avoid prolonged or repeated skin contact with used fluid.

Unknown acute toxicity (GHS-US)

SECTION 3: Composition/information on ingredients

Chemical Name	%	CAS #	GHS Classification
0002A385	3 - 7		

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SECTION 3: Composition/information on ingredients

Mineral oil 1 - 5 8012-95-1 Acute Tox. 3; H331
Components not listed are not physical or health hazards as defined in 29 CFR 1910.1200 (Hazard Communication Standard).

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.

Eyes Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists. Seek medical advice if symptoms persist.

Ingestion Do not induce vomiting and seek medical attention immediately. Provide medical care provider with this SDS.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms Not determined

4.3. Indication of any immediate medical attention and special treatment needed

Note to Doctor Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable and Unsuitable Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the surface of the fire. Do not direct a stream of water into the hot burning liquid.

5.2. Special hazards arising from the substance or mixture

Fire and/or Explosion Hazards Material may be ignited only if preheated to temperatures above the high flash point, for example in a fire.

5.3. Advice for firefighters

Fire Fighting Methods and Protection Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Use methods for the surrounding fire.

Hazardous Combustion Products Carbon monoxide, Smoke

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General Measures: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

6.2. Environmental precautions

Do not flush to sewer.
Avoid runoff into storm sewers and ditches that lead to waterways.
Remove from water surface by skimming or with suitable absorbents. Do not use dispersants.
Do not flush to sewer.

Avoid runoff into storm sewers and ditches that lead to waterways.
Remove from water surface by skimming or with suitable absorbents. Do not use dispersants.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: No special spill clean up considerations. Collect and discard in regular trash.
{EMSFORM_06GHS_CLEAN}

6.4. Reference to other sections

Follow all protective equipment recommendations provided in Section 8.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Empty containers may retain product residues/ vapors. Use proper bonding and grounding during bulk product transfer.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool dry place. Isolate from incompatible materials.

Incompatible materials

See Section 10.

7.3. Specific end use(s)

Gear Oil

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	Occupational Exposure Limits	Value
Oil mist, mineral	OSHA PEL	5 mg/m ³
Oil mist, mineral	OSHA PEL	5 mg/m ³ TWA
Oil mist (mineral)	OSHA STEL	10 mg/m ³ STEL
Oil mist, mineral	ACGIH TLV-TWA	5 mg/m ³
Mineral oil	ACGIH TLV-TWA	5 mg/m ³ TWA (excluding metal working fluids, highly & severely refined, inhalable fraction)
Oil mist, mineral	ACGIH STEL	10 mg/m ³
Oil mist (mineral)	IDLH	2500 mg/m ³ IDLH
None.	OSHA PEL-Skin Notation	

8.2. Exposure controls

Engineering Measures

Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort. Engineering controls must be designed to meet the OSHA chemical specific standard in 29 CFR 1910. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Facilities storing or using this material should be equipped with an eyewash and safety shower.

Respiratory Protection

Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Follow a respiratory protection program that meets 29 CFR 1910.134 and ANSI Z88.2 requirements whenever work place conditions warrant the use of a respirator. Wear a NIOSH approved respirator if any exposure is possible.

Respirator Type(s)

None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.

Eye Protection

Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses. Wear goggles and a Face shield.

Skin Protection

Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

Gloves

Neoprene, Nitrile

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State	Liquid
Color	Amber
Odor	Mild
Odor threshold	Not determined
pH	Not determined
Freezing point	Not determined

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Boiling Point	Not determined
Flash Point (°C)	242-256
Flash Point Method	COC
Evaporation Rate	Not determined
Upper Flammable/Explosive Limit, % in air	Not established
Lower Flammable/Explosive Limit, % in air	Not established
Flammability (solid, gas)	Not applicable
Vapor pressure	<0.20
Vapor Density	Not determined
Relative Density	0.86
Solubility in Water	Negligible; 0-1%
Octanol/Water Partition Coefficient	Not determined
Autoignition Temperature	Not determined
Decomposition Temperature	Not determined
Viscosity(40°C)	103.8-197.6

9.2. Other information

Volatile organic compound (VOC) content and percentage of volatiles	0.000000
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SECTION 10: Stability and reactivity

10.1. Reactivity	No data available.
10.2. Chemical stability	Stable under normal conditions.
10.3. Possibility of hazardous reactions	Hazardous polymerization will not occur.
10.4. Conditions to avoid	Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition. Moisture (will lead to product performance degradation).
10.5. Incompatible materials	Strong oxidizing agents
10.6. Hazardous decomposition products	Carbon monoxide, Smoke

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Ingestion Toxicity	No hazard in normal industrial use. Estimated to be > 5.0 g/kg.
Skin Contact	This material is likely to be slightly irritating to skin based on animal data. This material is estimated to be moderately irritating (Primary Irritation Index is 3.0 - 5.0 [rabbits]). Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Absorption	Likely to be practically non-toxic based on animal data.
Inhalation Toxicity	No hazard in normal industrial use. Likely to be practically non-toxic based on animal data.
Eye Contact	This material is estimated to be non-irritating eyes (Draize score <15 [rabbits]). Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Sensitization	Non-hazardous under Respiratory Sensitization category. No data available to indicate product or components may be a skin sensitizer.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
Carcinogenicity	Not expected to cause cancer. This product meets the IP-346 criteria of <3% PAH's and is not considered a carcinogen by the International Agency for Research on Cancer.
Reproductive and Developmental Toxicity	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Specific target organ	Non-hazardous under Specific Target Organ Systemic Toxicity Single Exposure category.

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SECTION 11: Toxicological information

toxicity-Single exposure	
Specific target organ	Non-hazardous under Specific Target Organ Systemic Toxicity Repeated Exposure category.
toxicity-Repeated exposure	
Long-Term (Chronic) Health Effects	No data available.
Aspiration toxicity	Non-hazardous under Aspiration category.
Other information	No data available.

Agents Classified by IARC Monographs

Not applicable	IARC Group 1
Not applicable	IARC Group 2A
Not applicable	IARC Group 2B

National Toxicity Program (NTP) Status

Not applicable	Known Human Carcinogen
Not applicable	Reasonably Anticipated To Be A Human Carcinogen

SECTION 12: Ecological information

12.1. Toxicity

Acute Aquatic ecotoxicity:	Non-hazardous under Aquatic Acute Environment category.
Chronic Aquatic ecotoxicity:	Non-hazardous under Aquatic Chronic Environment category.

12.2. Persistence and degradability

Biodegrades slowly.

12.3. Bioaccumulative potential

Bioconcentration may occur.

12.4. Mobility in soil

This material is expected to have essentially no mobility in soil. It absorbs strongly to most soil types.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

Not determined

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal Methods

Dispose of by incineration following Federal, State, Local, or Provincial regulations.

Waste Disposal Code(s)

Waste Description for Spent Product

Spent or discarded material is non-hazardous according to environmental regulations.

Contaminated packaging:

Recycle containers whenever possible.

Recycle containers whenever possible.

SECTION 14: Transport information

DOT	Proper Shipping Name:	No data available.
	UN Number:	Not regulated for road transport
	Hazard Class:	No data available.
	Packing Group:	No data available.
DOT Basic Description	Not classified as hazardous for transport (DOT, TDG, IMO/IMDG, IATA/ICAO).	
IMDG	Proper Shipping Name:	No data available.
	UN Number:	No data available.
	Hazard Class:	No data available.
	Packing Group:	No data available.

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SECTION 14: Transport information

IATA	Marine Pollutant:	No data available.
	Proper Shipping Name:	No data available.
	UN Number:	No data available.
	Hazard Class:	No data available.
	Packing Group:	No data available.

SECTION 15: Regulatory information

Chemical Inventories

TSCA Status	All components of this material are on the US TSCA Inventory or are exempt.
U.S. State Restrictions:	Not applicable
WHMIS:	Uncontrolled product according to WHMIS classification criteria

Chemical Name	Regulation	CAS #	%
None.	CERCLA		
None.	SARA 313		
None.	SARA EHS		
None.	TSCA 12b		

U.S. State Regulations

Chemical Name	Regulation	CAS #	%
None.	California Prop 65- Cancer		
None.	California Prop 65- Dev. Toxicity		
None.	California Prop 65- Reprod -fem		
None.	California Prop 65- Reprod-male		
Oil, mineral	Massachusetts RTK List	8012-95-1	1 - 5
Mineral oils, highly-refined	New Jersey RTK List	8012-95-1	1 - 5
Mineral oil	Pennsylvania RTK List	8012-95-1	1 - 5
None.	Rhode Island RTK List		
Oil mist, mineral	Minnesota Hazardous Substance List	8012-95-1	1 - 5

HMIS Ratings:

Health:	2
Fire:	1
Reactivity:	0
PPE:	B

NFPA Ratings:

Health:	2
Fire:	1
Reactivity:	0

KEY: 0 - Least 1 - Slight 2 - Moderate 3 - High 4 - Extreme

SECTION 16: Other information

Revision Date	01/04/2019
Supersedes:	1/11/2016
References	No data available.
Disclaimer	This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No

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SECTION 16: Other information

warranty is made, either expressed or implied.