

# SAFETY DATA SHEET

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

### 1.1. Product identifier

**Product Name:** STARFIRE CONVENTIONAL GEAR LUBRICANTS 80W90, 85W140

### 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

Hazardous to the aquatic environment - Acute Category 3  
Hazardous to the aquatic environment - Chronic Category 4

### 2.2. Label elements

**Hazard Statements** H402 - Harmful to aquatic life.  
H413 - May cause long lasting harmful effects to aquatic life.  
**Precautionary Statements**  
**Prevention** P273 - Avoid release to the environment.  
**Disposal** 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)

**Unknown Acute Toxicity (Gas):** 46.959906 % of the mixture consists of ingredient(s) of unknown toxicity.

## SECTION 3: Composition/information on ingredients

Chemical Name	%	CAS #	GHS Classification
Residual oils, petroleum, solvent-refined	30 - 60	64742-01-4	Acute Tox. 4; H332 Acute Tox. 3; H331
Lubricating oils, petroleum, hydrotreated spent	30 - 60	64742-58-1	Aquatic Chronic 4; H413

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

# SAFETY DATA SHEET

## SECTION 4: First aid measures

	breathing, give artificial respiration and have a trained individual administer oxygen and get medical attention immediately.
<b>Eyes</b>	None expected to be needed, however, use an eye wash to remove a chemical from your eye regardless of the level of hazard.
<b>Skin Contact</b>	Wash with soap and water.
<b>Ingestion</b>	No hazard in normal industrial use. Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this SDS.
<b>4.2. Most important symptoms and effects, both acute and delayed</b>	
<b>Symptoms</b>	Not determined
<b>4.3. Indication of any immediate medical attention and special treatment needed</b>	
<b>Note to Doctor</b>	No additional first aid information available.

## SECTION 5: Firefighting measures

<b>5.1. Extinguishing media</b>	
<b>Suitable and Unsuitable Extinguishing Media:</b>	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.
<b>5.2. Special hazards arising from the substance or mixture</b>	
<b>Fire and/or Explosion Hazards</b>	Material may be ignited only if preheated to temperatures above the high flash point, for example in a fire.
<b>5.3. Advice for firefighters</b>	
<b>Fire Fighting Methods and Protection</b>	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Use methods for the surrounding fire.
<b>Hazardous Combustion Products</b>	Carbon monoxide, Hydrogen sulfide, Nitrogen containing gases

## SECTION 6: Accidental release measures

<b>6.1. Personal precautions, protective equipment and emergency procedures</b>	
<b>General Measures:</b>	No adverse health affects expected from the clean up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this SDS.
<b>6.2. Environmental precautions</b>	
	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.
	Avoid runoff into storm sewers and ditches that lead to waterways.
<b>6.3. Methods and material for containment and cleaning up</b>	
<b>Methods for cleaning up:</b>	Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center. {EMSFORM_06GHS_CLEAN}
<b>6.4. Reference to other sections</b>	
	Follow all protective equipment recommendations provided in Section 8.

## SECTION 7: Handling and storage

<b>7.1. Precautions for safe handling</b>	No special handling instructions due to toxicity.
<b>7.2. Conditions for safe storage, including any incompatibilities</b>	
	Store in a cool dry place. Isolate from incompatible materials.
<b>Incompatible materials</b>	See Section 10.
<b>7.3. Specific end use(s)</b>	
	Gear Oil

## SECTION 8: Exposure controls/personal protection

# SAFETY DATA SHEET

## 8.1. Control parameters

Chemical Name	Occupational Exposure Limits	Value
Oil mist, mineral	OSHA PEL	5 mg/m <sup>3</sup>
Oil mist, mineral	ACGIH TLV-TWA	5 mg/m <sup>3</sup>
Oil mist, mineral	ACGIH STEL	10 mg/m <sup>3</sup>
None.	IDLH	
None.	OSHA PEL-Skin Notation	

## 8.2. Exposure controls

<b>Engineering Measures</b>	Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort.
<b>Respiratory Protection</b>	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.
<b>Respirator Type(s)</b>	None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.
<b>Eye Protection</b>	No special requirements under normal industrial use.
<b>Skin Protection</b>	Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
<b>Gloves</b>	Neoprene

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Physical State</b>	Liquid
<b>Color</b>	Brown
<b>Odor</b>	Mild
<b>Odor threshold</b>	Not determined
<b>pH</b>	Not determined
<b>Freezing point</b>	Not determined
<b>Boiling Point</b>	Not determined
<b>Flash Point (°C)</b>	218
<b>Flash Point Method</b>	COC
<b>Evaporation Rate</b>	Not determined
<b>Upper Flammable/Explosive Limit, % in air</b>	Not established
<b>Lower Flammable/Explosive Limit, % in air</b>	Not established
<b>Flammability (solid, gas)</b>	Not applicable
<b>Vapor pressure</b>	Not determined
<b>Vapor Density</b>	Not determined
<b>Relative Density</b>	0.89
<b>Solubility in Water</b>	Negligible; 0-1%
<b>Octanol/Water Partition Coefficient</b>	Not determined
<b>Autoignition Temperature</b>	Not determined
<b>Decomposition Temperature</b>	Not determined
<b>Viscosity(°C)</b>	144.3 - 332.5
<b>9.2. Other information</b>	
<b>Volatiles, % by weight</b>	0.000000

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	No data available.
<b>10.2. Chemical stability</b>	Stable under normal conditions.
<b>10.3. Possibility of hazardous</b>	Hazardous polymerization will not occur.

# SAFETY DATA SHEET

## SECTION 10: Stability and reactivity

### reactions

**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.

**10.5. Incompatible materials** Strong oxidizing agents

**10.6. Hazardous decomposition products** Carbon monoxide, Hydrogen sulfide, Nitrogen containing gases

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

<b>Ingestion Toxicity</b>	Although this product has a low order of acute oral toxicity, aspiration of minute amounts into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death. Likely to be practically non-toxic by ingestion based on animal data.
<b>Skin Contact</b>	Estimated to be non-irritating to skin (Primary Irritation Index is <0.5 [rabbits]). No hazard in normal industrial use.
<b>Absorption</b>	Likely to be practically non-toxic based on animal data.
<b>Inhalation Toxicity</b>	No hazard in normal industrial use. Likely to be practically non-toxic based on animal data.
<b>Eye Contact</b>	This material is estimated to be non-irritating eyes (Draize score <15 [rabbits]). No hazard in normal industrial use.
<b>Sensitization</b>	Non-hazardous under Respiratory Sensitization category. No data available to indicate product or components may be a skin sensitizer.
<b>Mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
<b>Carcinogenicity</b>	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.
<b>Reproductive and Developmental Toxicity</b>	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
<b>Specific target organ toxicity-Single exposure</b>	Non-hazardous under Specific Target Organ Systemic Toxicity Single Exposure category.
<b>Specific target organ toxicity-Repeated exposure</b>	Non-hazardous under Specific Target Organ Systemic Toxicity Repeated Exposure category.
<b>Aspiration toxicity</b>	Non-hazardous under Aspiration category.
<b>Other information</b>	No data available.

### Agents Classified by IARC Monographs

Ethylene oxide	IARC Group 1
Not applicable	IARC Group 2A
Vinyl acetate	IARC Group 2B
Ethyl acrylate	IARC Group 2B
1,4-Dioxane	IARC Group 2B
Propylene oxide	IARC Group 2B

### National Toxicity Program (NTP) Status

Ethylene oxide	Known Human Carcinogen
1,4-Dioxane	Reasonably Anticipated To Be A Human Carcinogen
Propylene oxide	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:** H413 - May cause long lasting harmful effects to aquatic life.

### 12.2. Persistence and degradability

Biodegrades at a moderate rate.

### 12.3. Bioaccumulative potential

Bioconcentration may occur.

# SAFETY DATA SHEET

## SECTION 12: Ecological information

### 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 according to Federal, State, Local, or Provincial regulations. Recycle used oil.

#### 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.

Recycle containers whenever possible.

Recycle containers whenever possible.

## SECTION 14: Transport information

**DOT Basic Description** Not classified as hazardous for transport (DOT, TDG, IMO/IMDG, IATA/ICAO).

## SECTION 15: Regulatory information

### Chemical Inventories

**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		
None.	Massachusetts RTK List		
None.	New Jersey RTK List		
None.	Pennsylvania RTK List		
None.	Rhode Island RTK List		
None.	Minnesota Hazardous Substance List		

#### HMIS Ratings:

Health: 0

#### NFPA Ratings:

Health: 0

# SAFETY DATA SHEET

Fire:	1	Fire:	1
Reactivity:	0	Reactivity:	0
PPE:	B		

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

## SECTION 16: Other information

**Revision Date**      **01/04/2019**  
**Supersedes:**      11/18/2015  
**References**      ACGIH: American Conference of Governmental Industrial Hygienists  
                         AIHA: American Industrial Hygiene Association  
                         CFR: Code of Federal Regulations  
                         DOT: United States Department of Transportation  
                         GHS: Globally Harmonized System of Classification and Labeling of Chemicals  
                         HMIS: Hazardous Materials Identification System  
                         IARC: International Agency for Research on Cancer  
                         IATA: International Air Transportation Association  
                         IDLH: Immediately Dangerous to Life or Health  
                         IMDG: International Maritime Dangerous Goods  
                         NFPA: National Fire Protection Association  
                         NIOSH: National Institute for Occupational Safety and Health  
                         NTP: National Toxicology Program  
                         OSHA: Occupational Safety and Health Administration  
                         PEL: Permissible Exposure Limit  
                         RTK: Right-to-Know  
                         SARA: Superfund Amendments and Reauthorization Act  
                         STEL: Short-term Exposure Limit  
                         TLV: Threshold limit value  
                         TSCA: Toxic Substances Control Act  
                         TWA: Time weighted average  
                         UN: United Nations  
                         WHMIS: Workplace Hazardous Materials Information System

### 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 warranty is made, either expressed or implied.