

# SAFETY DATA SHEET

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

### 1.1. Product identifier

**Product Name:** STARFIRE AW 22, 32, 46, 68, 100, 150, 220

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

**Recommended use:** Hydraulic 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

Not classified under GHS

### 2.2. Label elements

### 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
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.

**Eyes** None expected to be needed, however, use an eye wash to remove a chemical from your eye regardless of the level of hazard.

**Skin Contact** Wash with soap and water. Seek medical advice if symptoms persist.

**Ingestion** Minimal risk of harm if swallowed. Do not induce vomiting. 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.

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## 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

Carbon monoxide, Hydrogen sulfide, Nitrogen containing gases

#### Products

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**General Measures:** No adverse health effects expected from the clean up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this SDS.

### 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.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up:** 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.

### 6.4. Reference to other sections

Follow all protective equipment recommendations provided in Section 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

No special handling instructions due to toxicity.

### 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)

Hydraulic Oil

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Chemical Name

Oil mist, mineral

#### Occupational Exposure Limits

OSHA PEL

#### Value

5 mg/m<sup>3</sup>

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 TLV-TWA

5 mg/m<sup>3</sup>

Oil mist, mineral

ACGIH STEL

10 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

#### Engineering Measures

Use local exhaust ventilation or other engineering controls to minimize exposures and maintain

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## 8.2. Exposure controls

<b>Respiratory Protection</b>	operator comfort. 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, Nitrile

## SECTION 9: Physical and chemical properties

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

<b>Physical State</b>	Liquid
<b>Color</b>	Amber
<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>	235 -248
<b>Flash Point Method</b>	COC
<b>Evaporation Rate</b>	Not determined
<b>Upper Flammable/Explosive Limit, % in air</b>	= 10
<b>Lower Flammable/Explosive Limit, % in air</b>	= 1
<b>Flammability (solid, gas)</b>	Not applicable
<b>Vapor pressure</b>	<0.20
<b>Vapor Density</b>	Not determined
<b>Relative Density</b>	0.857 - 0.888
<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(40°C)</b>	22.1 - 243
<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 reactions</b>	Hazardous polymerization will not occur.
<b>10.4. Conditions to avoid</b>	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).
<b>10.5. Incompatible materials</b>	Strong oxidizing agents
<b>10.6. Hazardous decomposition products</b>	Carbon monoxide, Hydrogen sulfide, Nitrogen containing gases

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

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## SECTION 11: Toxicological information

<b>Ingestion Toxicity</b>	No hazard in normal industrial use. Estimated to be > 5.0 g/kg.
<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

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

<b>Acute Aquatic ecotoxicity:</b>	Non-hazardous under Aquatic Acute Environment category.
<b>Chronic Aquatic ecotoxicity:</b>	Non-hazardous under Aquatic Chronic Environment category.

### 12.2. Persistence and degradability

Biodegrades at a moderate rate.

### 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 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:

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## SECTION 13: Disposal considerations

Recycle containers whenever possible.  
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## 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  
Fire: 1  
Reactivity: 0  
PPE: B

### NFPA Ratings:

Health: 0  
Fire: 1  
Reactivity: 0

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

## SECTION 16: Other information

**Revision Date** 01-04-2019

### 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

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## SECTION 16: Other information

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.