

# SAFETY DATA SHEET

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## SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

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**Product ID:** 726, 727, 728  
**Product Name:** STARFIRE PREMIUM AW HYDRAULIC OIL ISO 32, 46, 68  
**Revision Date:** January 14, 2019

**Manufacturer's Name:** PennStar  
**Address:** 6 Horwith Dr. Northampton, PA18067  
**Emergency Phone:** CHEMTREC (800) 424-9300  
**Information Phone Number:** 484-275-7990

**Product/Recommended Uses:** Industrial Hydraulic Fluid

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## SECTION 2) HAZARDS IDENTIFICATION

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### Classification of the substance or mixture:

Not a hazardous substance or mixture according to United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS) and Council Directive 1999/45/EC and its subsequent amendments.

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## SECTION 3) COMPOSITION / INFORMATION ON INGREDIENTS

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CAS	Chemical Name	% By Weight
0064741-88-4	MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-REFINED (MILD) HEAVY PARAFFINIC	84% - 100%

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## SECTION 4) FIRST-AID MEASURES

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### Inhalation:

Remove source of exposure or move person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell or are concerned.

### Skin Contact:

Rinse/wash with lukewarm, gently flowing water and mild soap for 5 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention.

If exposed or concerned: Get medical advice/attention.

### Eye Contact:

If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelids open. If eye irritation persists: Get medical advice/attention.

### Ingestion:

Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.

If exposed or concerned: Get medical advice/attention.

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## SECTION 5) FIRE-FIGHTING MEASURES

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**Suitable Extinguishing Media:**

Dry chemical, foam, carbon dioxide water spray or fog is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

**Unsuitable Extinguishing Media:**

Water may be ineffective but can be used to cool containers exposed to heat or flame.

**Specific Hazards in Case of Fire:**

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke), carbon monoxide, unidentified organic and inorganic compounds.

Oxides of C, P and S. Additional byproducts include hydrogen sulfide, alkyl mercaptan and other sulfides.

Dense smoke may be generated while burning. Toxic fumes, gases or vapors may evolve on burning. Heavy flammable vapors may settle along ground level and low spots to create an invisible fire hazard. The vapors may extend to sources of ignition and flash back.

**Fire-fighting Procedures:**

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

**Special Protective Actions:**

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

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**SECTION 6) ACCIDENTAL RELEASE MEASURES**

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**Emergency Procedure:**

Immediately turn off or isolate any source of ignition. Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Collect with absorbent, non-combustible material into suitable containers. Transfer to a container for disposal.

Large spills, once contained, may be picked up using explosion proof, non-sparking vacuum pumps, shovels, or buckets, and disposed of in suitable containers for disposal. Local authorities should be advised if significant spillages cannot be contained.

Spill procedures (water): Remove from surface by skimming or with suitable adsorbents. If a large spill occurs notify appropriate authorities.

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

**Recommended equipment:**

Positive pressure, full-facepiece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

**Personal Precautions:**

Avoid breathing vapor or mist. Avoid contact with skin, eye or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

**Environmental Precautions:**

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

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**SECTION 7) HANDLING AND STORAGE**

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**General:**

Wash hands after use.

Do not get in eyes, on skin or on clothing.

Do not breathe vapors or mists.

Use good personal hygiene practices.

Eating, drinking and smoking in work areas is prohibited.

Remove contaminated clothing and protective equipment before entering eating areas.

**Ventilation Requirements:**

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

**Storage Room Requirements:**

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and strong oxidizers. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous.

## SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

### Eye protection:

Chemical goggles, safety glasses with side shields or vented/splash proof goggles. Contact lenses may absorb irritants. Particles may adhere to lenses and cause corneal damage.

### Skin protection:

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Chemical-resistant clothing is recommended to avoid prolonged contact. Avoid unnecessary skin contact.

Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. If handling hot material use insulated protective equipment.

### Respiratory protection:

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-REFINED (MILD) HEAVY PARAFFINIC	500	2000			1							

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH Carcinogen	ACGIH Notations	ACGIH TLV Basis
MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-REFINED (MILD) HEAVY PARAFFINIC							

## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

Density	7.07 lb/gal
Density VOC	7.170 lb/gal
% VOC	99.326%
VOC Actual	7.170 lb/gal
VOC Actual	859.210 g/l
Specific Gravity	0.865
VOC Regulatory	7.170 lb/gal
VOC Regulatory	859.210 g/l
% Solids By Weight	0.540%

Appearance	Amber, clear fluid
Odor Threshold	N.A.
Odor Description	Mild petroleum hydrocarbon odor
pH	N.A.
Water Solubility	Negligible

Flammability	Flash Point at or above 200 °F
Flash Point Symbol	N.A.
Flash Point	177 - 199°C (350-390°F)
Viscosity	29.71 - 70.19 cSt at 40°C (104°F)
(212°F) Lower Explosion Level (%)	N.A.
Upper Explosion Level (%)	N.A.
Vapor Pressure	Negligible at STP
Vapor Density	>1 at STP
Freezing Point	N.A.
Melting Point	N.A.
Low Boiling Point	Not determined. Expected to be >260°C (500°F)
High Boiling Point	N.A.
Auto Ignition Temp	N.A.
Decomposition Pt	N.A.
Evaporation Rate	Negligible at STP
Partition Coefficient: n-Octanol/Water	N.A.

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## SECTION 10) STABILITY AND REACTIVITY

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### Stability:

Stable

### Conditions to Avoid:

Avoid direct sunlight, extremes of temperatures and contact with incompatible materials.

Avoid high temperatures and product contamination.

### Hazardous Polymerization:

Will not occur.

### Incompatible Materials:

Avoid contact with acids and oxidizing materials.

### Hazardous Decomposition Products:

Smoke, carbon monoxide and dioxide and other aldehydes of incomplete combustion. Oxides of C, P and S. Hydrogen sulfide and alkyl mercaptans and other sulfides may be released.

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## SECTION 11) TOXICOLOGICAL INFORMATION

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### Skin Corrosion/Irritation:

May cause mild irritation of the skin.

### Serious Eye Damage/Irritation:

Can be slightly irritating to eyes.

### Respiratory or Skin Sensitization:

Prolonged or repeated contact may make skin more sensitive to other skin sensitizers.

Hot vapors may cause respiratory irritation.

### Germ Cell Mutagenicity:

No Data Available

### Carcinogenicity:

The highly refined mineral oil contains <3% DMSO extract as measured by IP 346, hence the classification of a carcinogen need not apply.

### Reproductive Toxicity:

No Data Available

### Specific Target Organ Toxicity - Single Exposure:

No Data Available

### Specific Target Organ Toxicity - Repeated Exposure:

No Data Available

**Aspiration Hazard:**

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

**Acute Toxicity:**

If inhalation : Overexposure by inhalation of hot material may cause nonspecific discomfort, such as nausea, headache or weakness. Caution should be taken to prevent forming aerosol or misting of this product without proper respiratory protection.

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**SECTION 12) ECOLOGICAL INFORMATION**

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**Toxicity:**

No Data Available.

**Persistence and Degradability:**

No Data Available.

**Bio-accumulative Potential:**

No Data Available.

**Mobility in Soil:**

No Data Available.

**Other Adverse Effects:**

No Data Available.

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**SECTION 13) DISPOSAL CONSIDERATIONS**

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**Waste Disposal:**

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. Waste management should be in full compliance with federal, state and local laws.

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

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**SECTION 14) TRANSPORT INFORMATION**

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**U.S. DOT Information:**

Bulk Shipping Description: Does not apply to bulk oil shipping.

Non-Bulk Shipping Description: Does not apply to non-bulk oil shipping.

Identification Number: Not applicable.

Hazard Classification: Not applicable.

Other: See 49 CFR for additional requirements for descriptions, allowed modes of transport and packaging. For more information concerning spills during transport, consult latest DOT Emergency Response Guidebook for Hazardous Materials Incidents, DOT P 5800.3.

**IMDG Information:**

This material is not classified as dangerous under IMDG regulations.

**IATA Information:**

This material is not classified as dangerous under IATA regulations.

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**SECTION 15) REGULATORY INFORMATION**

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CAS	Chemical Name	% By Weight	Regulation List
0064741-88-4	MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT- REFINED (MILD) HEAVY PARAFFINIC	84% - 100%	DSL,SARA312,TSCA,OSHA

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## SECTION 16) OTHER INFORMATION INCLUDING INFORMATION ON PREPARATION AND REVISION OF THE SDS

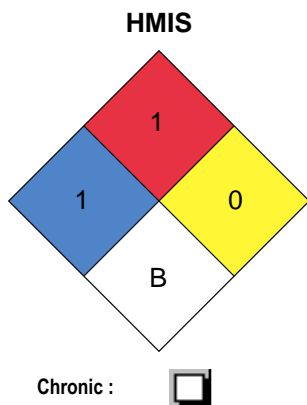
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### Glossary:

ACGIH: American Conference of Governmental Industrial Hygienists  
ANSI: American National Standards Institute  
Canadian TDG: Canadian Transportation of Dangerous Goods  
CAS: Chemical Abstract Service  
Chemtrec: Chemical Transportation Emergency Center (US)  
CHIP: Chemical Hazard Information and Packaging  
DSL: Domestic Substances List  
EC: Equivalent Concentration  
EH40 (UK): HSE Guidance Note EH40 Occupational Exposure Limits  
EPCRA: Emergency Planning and Community Right-To-Know Act  
HMIS: Hazardous Material Information Service  
LC: Lethal Concentration  
LD: Lethal Dose  
NFPA: National Fire Protection Association  
OEL: Occupational Exposure Limits OSHA: Occupational Safety and Health Administration, US Department of Labor  
PEL: Permissible Exposure Limit  
SARA (Title III): Superfund Amendments and Reauthorization Act  
SARA 313: Superfund Amendments and Reauthorization Act, Section 313  
SCBA: Self-Contained Breathing Apparatus  
STEL: Short Term Exposure Limit  
TLV: Threshold Limit Value  
TSCA: Toxic Substances Control Act Public Law 94-469  
TWA: Time Weighted Value  
US DOT: US Department of Transportation  
WHMIS: Workplace Hazardous Materials Information System

### Version 2.0:

Changes made on: Section 1, Section 9  
Revision Date: Jan 14, 2019



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