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

- **1.1 Product identifier**
  - Trade name: WOLF’S HEAD SD SEMI SYN 5W20
  - Other means of identification: No other identifiers

- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
  - Application of the substance / the mixture: Lubricant
  - Uses advised against: No further relevant information available.

- **1.3 Details of the supplier of the Safety Data Sheet**
  - Manufacturer/Supplier: WOLF’S HEAD Oil Company
    Made in U.S.A.

- **1.4 Emergency telephone number:**
  - ChemTel Inc.
    (800)255-3924 (North America)
    +1 (813)248-0585 (International)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
  - Classification according to Regulation (EC) No 1272/2008
    The product is not classified as hazardous according to the Globally Harmonized System (GHS).
    The product is not classified as hazardous according to OSHA GHS regulations within the United States.
    The product is not classified as hazardous according to the CLP regulation.

- **2.2 Label elements**
  - Labelling according to Regulation (EC) No 1272/2008
    The product is not classified as hazardous according to OSHA GHS regulations within the United States.
    The product is not classified as hazardous according to the CLP regulation.
  - Hazard pictograms Not Regulated
  - Signal word Not Regulated
  - Hazard statements Not Regulated.
Trade name: WOLF’S HEAD SD SEMI SYN 5W20

2.3 Other hazards There are no other hazards not otherwise classified that have been identified.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

- Components:
  - CAS: 84605-29-8
  - EINECS: 283-392-8
  - Reg.nr.: 01-2119493626-26-XXXX
  - Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts <0,25%
  - Eye Dam. 1, H318
  - Aquatic Chronic 2, H411
  - Skin Irrit. 2, H315

Additional information:
Note L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 ‘Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions - Dimethyl sulphoxide extraction refractive index method’, Institute of Petroleum, London. This product meets these requirements.

SECTION 4: First aid measures

4.1 Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:
  - Immediately wash with water and soap and rinse thoroughly.
  - If skin irritation is experienced, consult a doctor.
- After eye contact:
  - Remove contact lenses if worn.
  - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:
  - Rinse out mouth and then drink plenty of water.
  - Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed
- Nausea in case of ingestion.
- Gastric or intestinal disorders when ingested.

4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
- Suitable extinguishing agents:
  - Water haze or fog
  - Foam
Trade name: WOLF’S HEAD SD SEMI SYN 5W20

Fire-extinguishing powder
Carbon dioxide

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **5.2 Special hazards arising from the substance or mixture**
  In case of fire, the following can be released:
  Carbon monoxide (CO)
  Under certain fire conditions, traces of other toxic gases cannot be excluded.

- **5.3 Advice for firefighters**
- **Protective equipment:**
  Wear self-contained respiratory protective device.
  Wear fully protective suit.

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**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**
  Ensure adequate ventilation
  Particular danger of slipping on leaked/spilled product.
  Use personal protective equipment as required.

- **6.2 Environmental precautions**
  Avoid release to the environment.
  Prevent from spreading (e.g. by damming-in or oil barriers).

- **6.3 Methods and material for containment and cleaning up**
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Remove from the water surface (e.g. skim or suck off).
  Send for recovery or disposal in suitable receptacles.
  Dispose of the material collected according to regulations.

- **6.4 Reference to other sections**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

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**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling**
  Avoid the formation of oil haze.
  Open and handle receptacle with care.
  Avoid breathing mist/vapours/spray.
  Avoid contact with the eyes and skin.
  Keep out of reach of children.

- **Information about fire - and explosion protection:**
  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

- **7.2 Conditions for safe storage, including any incompatibilities**
  **Requirements to be met by storerooms and receptacles:**
  Store in cool, dry conditions in well sealed receptacles.
  Avoid storage near extreme heat, ignition sources or open flame.

- **Information about storage in one common storage facility:**

(Cont'd. from page 2)

(Cont'd. on page 4)
SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
  - **Ingredients with limit values that require monitoring at the workplace:**
    The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **8.2 Exposure controls**
  - **General protective and hygienic measures:**
    The usual precautionary measures are to be adhered to when handling chemicals.
    Keep away from foodstuffs, beverages and feed.
    Avoid contact with the eyes.
    Avoid close or long term contact with the skin.
    Avoid breathing mist/vapours/spray.
  - **Respiratory protection:**
    Not required under normal conditions of use.
    Use suitable respiratory protective device when aerosol or mist is formed.
  - **Protection of hands:**
    Gloves are advised for repeated or prolonged contact.
    Wear protective gloves to handle contents of damaged or leaking units.
  - **Eye protection:**
    Follow relevant national guidelines concerning the use of protective eyewear.
  - **Body protection:**
    Protective work clothing
  - **Limitation and supervision of exposure into the environment:**
    No special requirements.
  - **Risk management measures:**
    No special requirements.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
  - **Appearance**
    - Form: Liquid
    - Colour: Amber coloured
    - Odour: Petroleum-like
    - Odour threshold: Not determined.
  - **pH-value:** Not determined.
  - **Melting point/freezing point:** Not determined.
  - **Initial boiling point and boiling range:** >100 °C (>212 °F)
  - **Flash point:** >100 °C (>212 °F)
  - **Flammability (solid, gas):** Not applicable.
  - **Auto/Self-ignition temperature:** Not determined.
  - **Decomposition temperature:** Not determined.
Trade name: WOLF’S HEAD SD SEMI SYN 5W20

(Cont’d. from page 4)

- **Explosive properties:** Product does not present an explosion hazard.
- **Explosion limits**
  - Lower: Not determined.
  - Upper: Not determined.
- **Oxidising properties**
  - Not determined.
- **Vapour pressure:** Not determined.
- **Density:**
  - Relative density: <1
  - Vapour density: Not determined.
  - Evaporation rate: Not determined.
- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity**
  - Dynamic: Not determined.
  - Kinematic at 40 °C (104 °F): 63,1 mm²/s
- **9.2 Other information**
  - No further relevant information available.

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** The product is non-reactive under normal conditions of use, storage and transport.
- **10.2 Chemical stability** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong oxidising agents.
- **10.4 Conditions to avoid** Sources of ignition: sparks, open flame, incompatible materials
- **10.5 Incompatible materials** Oxidisers
- **10.6 Hazardous decomposition products**
  - Carbon monoxide and carbon dioxide
  - Hydrocarbons
  - Phosphorus oxides (e.g. P2O5)

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
  - Acute toxicity: Based on available data, the classification criteria are not met.
  - LD/LC50 values relevant for classification: None.
  - Primary irritant effect
  - Skin corrosion/irritation: Based on available data, the classification criteria are not met.
  - Serious eye damage/irritation: Based on available data, the classification criteria are not met.
  - Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

(Cont’d. on page 6)
Trade name: WOLF’S HEAD SD SEMI SYN 5W20

(Cont'd. from page 5)

- IARC (International Agency for Research on Cancer):
  - None of the ingredients are listed.

- Probable routes of exposure:
  - Ingestion.
  - Eye contact.
  - Skin contact.

- Germ cell mutagenicity: Based on available data, the classification criteria are not met.

- Carcinogenicity: Based on available data, the classification criteria are not met.

- Reproductive toxicity: Based on available data, the classification criteria are not met.

- STOT-single exposure: Based on available data, the classification criteria are not met.

- STOT-repeated exposure: Based on available data, the classification criteria are not met.

- Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- 12.1 Toxicity
  - Aquatic toxicity: No further relevant information available.

- 12.2 Persistence and degradability
  - The product is partially biodegradable. Significant residuals remain.

- 12.3 Bioaccumulative potential: No further relevant information available.

- 12.4 Mobility in soil: No further relevant information available.

- Additional ecological information:
  - General notes: Avoid release to the environment.

- 12.5 Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

- 12.6 Other adverse effects: No further relevant information available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
  - Recommendation:
    Contact waste processors for recycling information.
    Delivery of waste oil to officially authorized collectors only.
    The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

  - Uncleaned packaging:
    - Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

- 14.1 UN-Number

(Cont'd. on page 7)
### Trade name: WOLF’S HEAD SD SEMI SYN 5W20

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<td>· Marine pollutant:</td>
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<td>· 14.6 Special precautions for user</td>
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<td></td>
<td>Not applicable.</td>
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<td>· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</td>
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<td>Not applicable.</td>
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### SECTION 15: Regulatory information

| · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture | |
| · United States (USA) | |
| · SARA | |
| | Section 355 (extremely hazardous substances): |
| | None of the ingredients are listed. |
| | Section 313 (Specific toxic chemical listings): |
| | None of the ingredients are listed. |
| | TSCA (Toxic Substances Control Act): |
| | All ingredients are listed. |
| | EPA (Environmental Protection Agency) |
| | None of the ingredients are listed. |
| | IARC (International Agency for Research on Cancer) |
| | None of the ingredients are listed. |
| | Canadian Domestic Substances List (DSL) |
| | All ingredients are listed. |
| | Directive 2012/18/EU |
| | Named dangerous substances - ANNEX I None of the ingredients are listed. |
| | Other regulations, limitations and prohibitive regulations |
| | Substances of very high concern (SVHC) according to REACH, Article 57 |
| | None of the ingredients are listed. |

| · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out. |

(Cont'd. on page 8)
SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  H315 Causes skin irritation.
  H318 Causes serious eye damage.
  H411 Toxic to aquatic life with long lasting effects.

- Abbreviations and acronyms:
  ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bio-accumulative, Toxic
  SVHC: Substances of Very High Concern
  vPvB: very Persistent and very Bioaccumulative
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Eye Dam. 1: Serious eye damage/eye irritation – Category 1
  Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

- Sources
  Website, European Chemicals Agency (echa.europa.eu)
  Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
  Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
  Safety Data Sheets, Individual Manufacturers
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