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

- 1.1 Product identifier
  - Trade name: WOLF’S HEAD 100% SYN 0W-20 DEXOS1
  - Application of the substance / the preparation: Lubricating Oils
- 1.3 Details of the supplier of the Safety Data Sheet
  - Manufacturer/Supplier:
    WOLF’S HEAD LUBRICANTS
    1601 McCloskey Boulevard
    Tampa, FL 33605 U.S.A.
    Phone: 813-569-8106

- 1.4 Emergency telephone number:
  - ChemTel Inc.
  - (800)255-3924, +1 (813)248-0585

2 Hazards identification

- 2.1 Classification of the substance or mixture
  - Classification according to Regulation (EC) No 1272/2008
    The product is not classified according to the CLP regulation.
  - Classification according to Directive 67/548/EEC or Directive 1999/45/EC
    Not applicable.
  - Information concerning particular hazards for human and environment:
    The product does not have to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
  - Classification system:
    The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
    The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

- 2.2 Label elements
  - Labeling according to Regulation (EC) No 1272/2008: N/A
  - Hazard pictograms: N/A
  - Signal word: N/A
  - Hazard statements: N/A
  - Hazard description:
    WHMIS-symbols: Not hazardous under WHMIS.
Safety data sheet
according to 1907/2006/EC (REACH),
1272/2008/EC (CLP), and GHS

Trade name: WOLF’S HEAD 100% SYN 0W-20 DEXOS1

(Contd. of page 1)

- HMIS Long Term Health Hazard Substances
  None of the ingredients is listed.

- 2.3 Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

3 Composition/information on ingredients

- 3.2 Mixtures
  - Description: Mixture of substances listed below with nonhazardous additions.

- Dangerous components:

<table>
<thead>
<tr>
<th>CAS: 64742-54-7</th>
<th>Distillates (petroleum), hydrotreated heavy paraffinic substance with a Community workplace exposure limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 265-157-1</td>
<td>Carc. Cat. 2</td>
</tr>
<tr>
<td>Index number: 649-467-00-8</td>
<td>85%</td>
</tr>
</tbody>
</table>

- 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.
  For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- 4.1 Description of first aid measures
  - General information: No special measures required.
    - 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 continues, 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
    No further relevant information available.
  - 4.3 Indication of any immediate medical attention and special treatment needed
    No further relevant information available.

(Contd. on page 3)
5 Firefighting measures

- 5.1 Extinguishing media
  - Suitable extinguishing agents:
    Carbon dioxide
    Water haze or fog
    Foam
    Fire-extinguishing powder
  - For safety reasons unsuitable extinguishing agents: Water with full jet

- 5.2 Special hazards arising from the substance or mixture
  - Sulphur dioxide (SO2)
  - Nitrogen oxides (NOx)
  - Carbon monoxide (CO)

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

6 Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
  - Wear protective equipment. Keep unprotected persons away.
  - Ensure adequate ventilation

- 6.2 Environmental precautions:
  - Do not allow to enter sewers/surface or ground water.
  - 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).
  - Send for recovery or disposal in suitable receptacles.
  - Do not flush with water or aqueous cleansing agents

- 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.

7 Handling and storage

- 7.1 Precautions for safe handling
  - Avoid the formation of oil haze.
  - Information about fire - and explosion protection: No special measures required.

- 7.2 Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles: No special requirements.
    - Information about storage in one common storage facility: Store away from oxidizing agents.
    - Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
Safety data sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

Trade name: WOLF’S HEAD 100% SYN 0W-20 DEXOS1

7.3 Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.

- 8.1 Control parameters

  - Ingredients with limit values that require monitoring at the workplace:

    | Compound | PEL (USA) | TLV (USA) |
    |----------|-----------|-----------|
    | 64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic | 5 mg/m³ | Short-term value: 10 mg/m³ |
    | | | Long-term value: 5 mg/m³ |

- Additional information: The lists valid during the making were used as basis.

- 8.2 Exposure controls

  - Personal protective equipment:

    - General protective and hygienic measures:
      Keep away from foodstuffs, beverages and feed.
      Immediately remove all soiled and contaminated clothing
      The usual precautionary measures are to be adhered to when handling chemicals.

    - Respiratory protection:
      Not necessary if room is well-ventilated.
      Use suitable respiratory protective device in case of insufficient ventilation

    - Protection of hands:

      ![Protective gloves]
      Oil resistant gloves

      - Material of gloves:
        The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

      - Eye protection:

        ![Safety glasses]
        Goggles recommended during refilling

    - Body protection: Protective work clothing

(Contd. on page 5)
## 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

- **Appearance:**
  - Form: Oily
  - Colour: Amber coloured
  - Odour: Characteristic
  - Odour threshold: Not determined.

- **pH-value:** Not determined.

- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.

- **Flash point:** 210°C (410°F)

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:**
  - Decomposition temperature: Not determined.
  - Self-igniting: Product is not self-igniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.

- **Vapour pressure:** Not determined.

- **Density at 20°C:** 0.85 g/cm³

- **Relative density**
  - Not determined.

- **Vapour density**
  - Not determined.

- **Evaporation rate**
  - Not determined.

- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** > 2.0 log POW (Estimate)

- **Viscosity:**
  - Viscosity Index: 160
  - Kinematic at 40°C: 35 cSt (8.5 cSt @ 100°C)

- **Solvent content:**
  - Organic solvents: 0.0%

### 9.2 Other information

No further relevant information available.
10 Stability and reactivity

- 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:
  No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions: Reacts with strong oxidizing agents.
- 10.4 Conditions to avoid: Store away from oxidizing agents.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products:
  Carbon monoxide and carbon dioxide
  Possible in traces.
  Sulphur oxides (SOx)
  Nitrogen oxides (NOx)

11 Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity:

  LD/LC50 values relevant for classification:

  Oral  
  LD50  >2000 mg/kg (rat)
  Dermal  LD50  >2000 mg/kg (rabbit)

- Primary irritant effect:
  - on the skin: Slight irritant effect on skin and mucous membranes.
  - on the eye: Slight irritant effect on eyes.
  - Sensitization: Sensitizing effect by skin contact is possible by prolonged exposure.

- Additional toxicological information:
  The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
  When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- 12.1 Toxicity
  - Aquatic toxicity: The material is harmful to the environment.
- 12.2 Persistence and degradability: Not easily biodegradable
- 12.3 Bioaccumulative potential: May be accumulated in organism
- 12.4 Mobility in soil: No further relevant information available.

- Additional ecological information:
  - General notes:
    Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
    Danger to drinking water if even small quantities leak into the ground.
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
## 13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
  Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be reused after reprocessing. Delivery of waste oil to officially authorized collectors only.
- **Uncleaned packaging:**
  - **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

<table>
<thead>
<tr>
<th>14.1 UN-Number</th>
<th>DOT, ADN, IMDG, IATA</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>DOT, ADR, ADN, IMDG, IATA</td>
<td>N/A</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>DOT, ADR, ADN, IMDG, IATA</td>
<td>Class N/A</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>DOT, ADR, IMDG, IATA</td>
<td>N/A</td>
</tr>
<tr>
<td>14.5 Environmental hazards:</td>
<td>Marine pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>UN &quot;Model Regulation&quot;:</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

(Contd. of page 6)

(Contd. of page 8)
### 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 is listed.
      - **Section 313 (Specific toxic chemical listings):**
        - None of the ingredients is listed.
      - **TSCA (Toxic Substances Control Act):**
        - All ingredients are listed.
      - **Proposition 65 (California):**
        - **Chemicals known to cause cancer:**
          - None of the ingredients is listed.
        - **Chemicals known to cause reproductive toxicity for females:**
          - None of the ingredients is listed.
        - **Chemicals known to cause reproductive toxicity for males:**
          - None of the ingredients is listed.
        - **Chemicals known to cause developmental toxicity:**
          - None of the ingredients is listed.
    - **Carcinogenic Categories**
      - **EPA (Environmental Protection Agency)**
        - None of the ingredients is listed.
      - **IARC (International Agency for Research on Cancer)**
        - None of the ingredients is listed.
      - **TLV (Threshold Limit Value established by ACGIH)**
        - None of the ingredients is listed.
      - **MAK (German Maximum Workplace Concentration)**
        - None of the ingredients is listed.
      - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
        - None of the ingredients is listed.
      - **OSHA-Ca (Occupational Safety & Health Administration)**
        - None of the ingredients is listed.
    - **Canada**
      - **Canadian Domestic Substances List (DSL)**
        - All ingredients are listed.
      - **Canadian Ingredient Disclosure list (limit 0.1%)**
        - None of the ingredients is listed.

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Safety data sheet
according to 1907/2006/EC (REACH),
1272/2008/EC (CLP), and GHS

Trade name: WOLF’S HEAD 100% SYN 0W-20 DEXOS1

(Contd. of page 8)

- Canadian Ingredient Disclosure list (limit 1%)
  None of the ingredients is listed.

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

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.

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (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 Harmonized System of Classification and Labeling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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This document was authored and reviewed by the technical and scientific staff at ChemTel Inc. Descriptions, classifications and calculations are based upon data provided by manufacturer and augmented by published data in conjunction with expert analysis by degreed scientists.

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