1. IDENTIFICATION

1.1. Product identifier

Product name                  Royal Crown White Oil 22
Product code                  813
Synonyms                      None

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

Recommended use              Lubricant
Uses advised against          No information available

1.3. Details of the supplier of the safety data sheet

Manufacturer                  AXEL Royal, LLC
                               516 S. 25th West Ave
                               Tulsa, OK 74127
                               United States
                               918 584 2671

1.4. Emergency telephone number

ChemTel Emergency telephone   1-800-255-3924
International Emergency telephone  +01-813-248-0585

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

2.2. Label elements

Signal word                  None

Symbols/Pictograms           None

2.3. Hazards not otherwise classified (HNOC)
May be harmful in contact with skin. May be harmful if inhaled.

2.4. Other information
Not applicable.
3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>White mineral oil, petroleum</td>
<td>8042-47-5</td>
<td>60-100</td>
</tr>
</tbody>
</table>

The exact percentage (concentration) of composition has been withheld as a trade secret.

Ingredient comments The mineral oils in the product contain <3% DMSO-extract (IP 346).

4. FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation Move to fresh air in case of accidental inhalation of vapors or decomposition products.

Skin contact Wash skin with soap and water.

Eye contact Rinse thoroughly with plenty of water, also under the eyelids.

Ingestion Do not induce vomiting without medical advice. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms None known.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media Use CO2, dry chemical, or foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Not flammable. Fire may produce irritating and/or toxic gases.

Hazardous combustion products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Exposure guidelines

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Use personal protective equipment as required. Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling

Extremely slippery when spilled. Avoid prolonged or repeated contact with skin. Avoid breathing vapors or mists.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame. Keep at a temperature not exceeding 45°C.

Incompatible materials

None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure guidelines

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

8.2. Exposure controls

Engineering controls

Eyewash stations

Ventilation systems

8.3. Individual protection measures, such as personal protective equipment

Hand protection

Wear protective nitrile rubber gloves Thickness ≥ 0.38 mm - breakthrough time >480 minutes. Thickness 0.1 mm - splash protection.
Eye/face Protection  
Wear safety glasses with side shields (or goggles).

Skin and body protection  
No special technical protective measures are necessary.

Respiratory protection  
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General hygiene considerations  
Handle in accordance with good industrial hygiene and safety practice.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Smooth</td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>colorless</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Petroleum</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 93.5 °C &gt; 200.3 °F</td>
<td>ASTM D92</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability limits in air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Density</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.8600</td>
<td>No information available</td>
</tr>
<tr>
<td>Water solubility</td>
<td></td>
<td>insoluble</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>(n-octanol/water)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>22.00 mm²/s</td>
<td>@ 40 °C</td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td></td>
<td>No information available</td>
</tr>
<tr>
<td>Other information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td></td>
<td>No information available</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

10.1. Reactivity
Stable.

10.2. Chemical stability.
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
None under normal processing.

10.4. Conditions to avoid
Heat.

10.5. Incompatible materials
Strong oxidizing agents.

10.6. Hazardous decomposition products
None under normal processing.

11. TOXICOLOGICAL INFORMATION

11.1. Information on likely routes of exposure

Inhalation
Inhalation of oil mist may cause irritation, headaches, nausea and breathing difficulties.

Ingestion
Malaise (vague feeling of discomfort).

Skin contact
May be harmful in contact with skin.

Eye contact
May cause slight irritation.

11.2. Information on toxicological effects

Symptoms
No information available.

11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation
Not hazardous based on component data.

Serious eye damage/eye irritation
Not hazardous based on component data.

Sensitization
Not hazardous based on component data.

Germ cell mutagenicity
Not hazardous based on component data.

Carcinogenicity
Not hazardous based on component data.

Reproductive toxicity
Not hazardous based on component data.

STOT-single exposure
Not hazardous based on component data.

STOT-repeated exposure
Not hazardous based on component data.

Aspiration hazard
Not hazardous based on component data.

11.4. Numerical measures of toxicity

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>LC50 (lethal concentration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White mineral oil, petroleum</td>
<td>&gt; 5000 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8042-47-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following values are calculated based on chapter 3.1 of the GHS document.
12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity
Not regarded as dangerous for the environment. Occasional major emissions or frequently recurring minor emissions may have a harmful or disturbing effect.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>White mineral oil, petroleum 8042-47-5</td>
<td>-</td>
<td>10000: 96 h Lepomis macrochirus mg/L LC50</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
Not readily biodegradable.

12.3. Bioaccumulative potential
Material does not bioaccumulate.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>White mineral oil, petroleum 8042-47-5</td>
<td>&gt;6</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil
After release, adsorbs onto soil.

12.5. Results of PBT and vPvB assessment
No information available

12.6. Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Disposal of wastes Dispose of in accordance with federal, state and local regulations. Use personal protection recommended in Section 8.

Contaminated packaging Dispose of in accordance with federal, state and local regulations

US EPA waste number No information available

Other information Waste codes should be assigned by the user based on the application for which the product was used

14. TRANSPORT INFORMATION

14.1. UN number
Not regulated

14.2. UN proper shipping name
Not regulated

14.3. Transport hazard class(es)
Not regulated
14.4. Packing group
Not applicable

14.5. Environmental hazards
None

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available

14.7. Special precautions for user
None

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

CWA (Clean Water Act)  
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

International Inventories

<table>
<thead>
<tr>
<th>Legend:</th>
<th>TSCA - United States Toxic Substances Control Act Section 8(b) Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List</td>
</tr>
<tr>
<td></td>
<td>EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances</td>
</tr>
<tr>
<td></td>
<td>ENCS - Japan Existing and New Chemical Substances</td>
</tr>
<tr>
<td></td>
<td>IECSC - China Inventory of Existing Chemical Substances</td>
</tr>
<tr>
<td></td>
<td>KECL - Korean Existing and Evaluated Chemical Substances</td>
</tr>
<tr>
<td></td>
<td>PICCS - Philippines Inventory of Chemicals and Chemical Substances</td>
</tr>
<tr>
<td></td>
<td>AICS - Australian Inventory of Chemical Substances</td>
</tr>
<tr>
<td></td>
<td>NZIoC - New Zealand Inventory of Chemicals</td>
</tr>
</tbody>
</table>

US Federal Regulations

SARA 313  
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Acute Health Hazard</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations
California Proposition 65  This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

EPA Pesticide Registration Number  Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Physical hazards</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

Revision date  22-Aug-2019
Revision note  No information available

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Material Safety Data Sheet