1. IDENTIFICATION

1.1. Product identifier

Product name: Royal Crown Tech Plus 46
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)

Not applicable.

2.4. Other information

Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Ingredient comments: The mineral oils in the product contain <3% DMSO-extract (IP 346).
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**  
Extremely slippery when spilled. Avoid contact with eyes and skin. Avoid breathing vapors or mists. Use personal protection recommended in Section 8.

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.
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. Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

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
No special technical protective measures are necessary.

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
Appearance
Smooth
Physical state
Liquid
Color: colorless
Odor: Petroleum
Odor threshold: No information available

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
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</thead>
<tbody>
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<td>pH</td>
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</tr>
<tr>
<td>Melting point/freezing point</td>
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<td>Boiling point/boiling range</td>
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<td>Flash point</td>
<td>&gt; 93.5 °C / &gt; 200.3 °F</td>
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<td>Evaporation rate</td>
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<td>Flammability (solid, gas)</td>
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<td>Flammability limits in air</td>
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<tr>
<td>Solubility in other solvents</td>
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<td>Partition coefficient</td>
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</tr>
<tr>
<td>(n-octanol/water)</td>
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<td>Dynamic viscosity</td>
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<tr>
<td>Density</td>
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</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

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)  5066  mg/kg
ATEmix (dermal)  10005  mg/kg

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.

12.2. Persistence and degradability
Not readily biodegradable.

12.3. Bioaccumulative potential
Material does not bioaccumulate.

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>Inventory</th>
<th>Complies</th>
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<tr>
<td>TSCA</td>
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<tr>
<td>DSL/NDSL</td>
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<td>EINECS/ELINCS</td>
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<td>PICCS</td>
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<td>AICS</td>
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<td>NZIoC</td>
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</tbody>
</table>

**Legend:**
- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
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>Hazard Category</th>
<th>No</th>
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<tbody>
<tr>
<td>Acute Health Hazard</td>
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<tr>
<td>Chronic Health Hazard</td>
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<tr>
<td>Fire Hazard</td>
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<tr>
<td>Sudden release of pressure hazard</td>
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<tr>
<td>Reactive Hazard</td>
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</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

US State 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>
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<tr>
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<td>Health hazards</td>
<td>Flammability</td>
<td>Instability</td>
<td>Special Hazard</td>
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Revision date 05-Mar-2019
Revision note SDS sections updated, 1, 11, 15

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