Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
STARFIRE Premium Plus Syn Blend HD 10W-30 - 15W-40

Product Code
Prefix 22

Synonyms
HDDEO, Syn Blend

Recommended Use
Lubricating oils. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

Restrictions on Use
None known.

Details of the supplier of the safety data sheet
Coolants Plus Inc.
2570 Van Hook Ave.
Hamilton, OH 45015

www.starifre1.com
Phone: 1-888-258-8723
Emergency Phone #: 1-800-468-1760

Issue Date
March 14, 2017

Supersedes Issue Date
New Issue SDS

Original Issue Date
March 14, 2017

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.
None needed according to classification criteria

GHS Label Elements

Symbol(s)
None needed according to classification criteria

Signal Word
None needed according to classification criteria

Hazard Statement(s)
None needed according to classification criteria.

Precautionary Statement(s)
Prevention
None needed according to classification criteria.

Response
None needed according to classification criteria.

Storage
None needed according to classification criteria.

Disposal
Dispose of in accordance with all applicable federal, state and local regulations.
Other Hazards
Repeated exposure may cause skin dryness or cracking.

### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-58-1</td>
<td>Lubricating oils, petroleum, hydrotreated spent</td>
<td>75-80</td>
</tr>
<tr>
<td>64742-65-0</td>
<td>Distillates, petroleum, solvent-dewaxed heavy paraffinic</td>
<td>5-10</td>
</tr>
<tr>
<td>113706-15-3</td>
<td>Phosphorodithioic acid, mixed O,O-bis(sec-butyl and isooctyl) esters, zinc salts</td>
<td>1-5</td>
</tr>
<tr>
<td>64741-89-5</td>
<td>Distillates, petroleum, solvent-refined light paraffinic</td>
<td>1-5</td>
</tr>
<tr>
<td>64742-54-7</td>
<td>Distillates, petroleum, hydrotreated heavy paraffinic</td>
<td>1-5</td>
</tr>
<tr>
<td>64742-70-7</td>
<td>Paraffin oils, petroleum, catalytic dewaxed heavy</td>
<td>0.1-1</td>
</tr>
</tbody>
</table>

### Section 4 - FIRST AID MEASURES

**Inhalation**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention, if needed.

**Skin**
IF ON SKIN: Wash with plenty of soap and water. Get medical attention, if needed.

**Eyes**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention, if needed.

**Ingestion**
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

**Most Important Symptoms/Effects**

**Acute**
No information on significant adverse effects.

**Delayed**
Repeated exposure may cause skin dryness or cracking.

**Indication of any immediate medical attention and special treatment needed**
Treat symptomatically and supportively.

### Section 5 - FIRE FIGHTING MEASURES

**Extinguishing Media**

**Suitable Extinguishing Media**
Carbon dioxide, regular foam, dry chemical, water spray, water fog. Water or foam may cause frothing.

**Unsuitable Extinguishing Media**
Do not use high-pressure water streams.

**Special Hazards Arising from the Chemical**
Negligible fire hazard. Avoid friction, static electricity and sparks.
Hazardous Combustion Products
Decomposition and combustion materials may be toxic. Burning may produce sulfur oxides, aldehydes, ketones, carbon monoxide and unidentified organic compounds.

Fire Fighting Measures
A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Special Protective Equipment and Precautions for Firefighters
Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

Methods and Materials for Containment and Cleaning Up
Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, spark proof tool into a sealable container for disposal. Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal. There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see SECTION 15: REGULATORY INFORMATION.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling
Keep away from heat, sparks and naked flames. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools and explosion-proof equipment. When transferring large volumes of product, metal containers, including trucks and tank cars, should be grounded and bonded. This product has a low vapor pressure and is not expected to present an inhalation hazard under normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes Skin clothing shoes.

Conditions for Safe Storage, Including any Incompatibilities
None needed according to classification criteria.
Additional information: Storage. Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous.

Incompatible Materials
Strong oxidizing materials

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)
There are no biological limit values for any of this product's components.
Engineering Controls
Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection
Wear safety glasses. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of vapors or mists. Eye wash fountains and emergency showers are recommended. Contact lens use is not recommended.

Respiratory Protection
No respiratory protection is normally required. Protection provided by air purifying respirators is limited. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

Glove Recommendations
Where skin contact is likely, wear neoprene, nitrile, or equivalent protective gloves; use of natural rubber or equivalent gloves is not recommended.

Protective Materials
Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: Safety glasses, Gloves, and Lab coat or apron.

### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Petroleum</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density (air=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>(Insoluble)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>&gt;100 SUS</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Amber</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>129.5 °C (265 °F Minimum)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>165 °C [Cleveland Open Cup. ] (329 °F Minimum)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>&lt;0.1 mmHg @ 68°F °C (20 °C)</td>
</tr>
<tr>
<td>Specific Gravity (water=1)</td>
<td>0.87 (Approximate Water = 1)</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Density 7.3 lb/gal (US Approximate)

Physical Form Liquid.

Pour Point -3 °C (27 °F Maximum)

Molecular Weight Not available

Other Information
No additional information is available.

Section 10 - STABILITY AND REACTIVITY

Reactivity
No reactivity hazard is expected.

Chemical Stability
Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions
Will not polymerize.

Conditions to Avoid
Avoid heat, flames, sparks and other sources of ignition

Incompatible Materials
Avoid oxidizing agents.

Hazardous decomposition products
None under normal temperatures and pressures.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation
No information on significant adverse effects.

Skin Contact
No information on significant adverse effects.

Eye Contact
No information on significant adverse effects.

Ingestion
No information on significant adverse effects.

Acute and Chronic Toxicity
Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Lubricating oils, petroleum, hydrotreated spent (64742-58-1)
Oral LD50 Rat >2000 mg/kg; Dermal LD50 Rabbit >4480 mg/kg

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)
Oral LD50 Rat >15000 mg/kg (no deaths occurred); Dermal LD50 Rabbit >5000 mg/kg (no deaths occurred)
Inhalation LC50 Rat >2400 mg/m3 4 h (no deaths occurred)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)
Oral LD50 Rat >15 g/kg; Dermal LD50 Rabbit >5 g/kg; Inhalation LC50 Rat 2.18 mg/L 4 h

Distillates, petroleum, hydrotreated heavy paraffinic (64742-54-7)
Oral LD50 Rat >15 g/kg (no deaths occurred); Dermal LD50 Rabbit >5000 mg/kg (no deaths occurred)

Paraffin oils, petroleum, catalytic dewaxed heavy (64742-70-7)
Oral LD50 Rat >15000 mg/kg; Dermal LD50 Rabbit >5000 mg/kg
Product Toxicity Data

Acute Toxicity Estimate

<table>
<thead>
<tr>
<th>Route</th>
<th>Toxicity Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

Immediate Effects

No information on significant adverse effects.

Delayed Effects

Repeated exposure may cause skin dryness or cracking.

Irritation/Corrosivity Data

May cause slight skin and respiratory irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA

Germ Cell Mutagenicity

No information available for the product.

Tumorigenic Data

No data available

Reproductive Toxicity

No information available for the product.

Specific Target Organ Toxicity - Single Exposure

No information on significant adverse effects.

Specific Target Organ Toxicity - Repeated Exposure

No information on significant adverse effects.

Aspiration hazard

No information available for the product.

Medical Conditions Aggravated by Exposure

Individuals with pre-existing respiratory tract (nose, throat, and lungs), eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

 Toxic to aquatic life.

Component Analysis - Aquatic Toxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lubricating oils, petroleum, hydrotreated spent</td>
<td>LC50 96 h Brachydanio rerio 79.6 mg/L [semi-static ]; LC50 96 h Pimephales promelas 3.2 mg/L [semi-static ]</td>
</tr>
<tr>
<td>Fish: Distillates, petroleum, solvent-dewaxed heavy paraffinic</td>
<td>64742-65-0</td>
</tr>
<tr>
<td>Fish: Distillates, petroleum, solvent-dewaxed heavy paraffinic</td>
<td>LC50 96 h Oncorhynchus mykiss &gt;5000 mg/L</td>
</tr>
</tbody>
</table>
## Persistence and Degradability
No information available for the product.

## Bioaccumulative Potential
No information available for the product.

## Mobility
No information available for the product.

## Other Toxicity
No additional information is available.

### Section 13 - DISPOSAL CONSIDERATIONS

**Disposal Methods**
Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

**Component Waste Numbers**
The U.S. EPA has not published waste numbers for this product's components.

### Section 14 - TRANSPORT INFORMATION

**US DOT Information:**
- **Additional information:** Not regulated as dangerous goods.

**IATA Information:**
- **Additional information:** Not regulated as a hazardous material.

**TDG Information:**
- **Additional information:** Not regulated as dangerous goods.

### Section 15 - REGULATORY INFORMATION

**U.S. Federal Regulations**
None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.
SARA Section 311/312 (40 CFR 370 Subparts B and C)
Acute Health: No Chronic Health: No Fire: No Pressure: No Reactivity: No

U.S. State Regulations
The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates, petroleum, solvent-refined light paraffinic</td>
<td>64741-89-5</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Paraffin oils, petroleum, catalytic dewaxed heavy</td>
<td>64742-70-7</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Not listed under California Proposition 65

Canada Regulations
Canadian WHMIS Ingredient Disclosure List (IDL)
The components of this product are either not listed on the IDL or are present below the threshold limit listed on the IDL.

Component Analysis - Inventory
Lubricating oils, petroleum, hydrotreated spent (64742-58-1);
Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0);
Phosphorodithioic acid, mixed O,O-bis(sec-butyl and isoctyl) esters, zinc salts (113706-15-3);
Distillates, petroleum, solvent-refined light paraffinic (64741-89-5);
Distillates, petroleum, hydrotreated heavy paraffinic (64742-54-7);
Paraffin oils, petroleum, catalytic dewaxed heavy (64742-70-7)

US  CA
Yes  DSL

Section 16 - OTHER INFORMATION

NFPA Ratings
Health: 1 Fire: 1 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes
New SDS 11/29/2016

Key / Legend
ACGIH - American Conference of Governmental Industrial Hygienists; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania®; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CPR - Controlled Products Regulations; DOT - Department of Transportation; DSL - Domestic Substances List; EPA - Environmental Protection Agency; F - Fahrenheit; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR’s Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NDSL – Non-Domestic Substance List (Canada); NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; RCRA - Resource Conservation and Recovery Act; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act;

Other Information

Disclaimer:
User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Coolants assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplied to the user.