

Safety Data Sheet

Material Name: STARFIRE Premium Plus 15W-40 CK-4

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

STARFIRE Premium Plus 15W-40 CK-4

Synonyms

HDDEO

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.starfire1.com

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Emergency Phone #: 1-800-468-1760

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November 29, 2016

Supersedes Issue Date

New Issue SDS

Original Issue Date

November 29, 2016

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.

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Other Hazards

Repeated exposure may cause skin dryness or cracking.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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

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.

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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.

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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 fountain 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

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

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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

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Acute Toxicity Estimate

Dermal	> 2000 mg/kg
Oral	> 2000 mg/kg

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

Lubricating oils, petroleum, hydrotreated spent	64742-58-1
Fish:	LC50 96 h Brachydanio rerio 79.6 mg/L [semi-static]; LC50 96 h Pimephales promelas 3.2 mg/L [semi-static]
Distillates, petroleum, solvent-dewaxed heavy paraffinic	64742-65-0
Fish:	LC50 96 h Oncorhynchus mykiss >5000 mg/L
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L IUCLID

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Distillates, petroleum, solvent-refined light paraffinic	64741-89-5
Fish:	LC50 96 h Oncorhynchus mykiss >5000 mg/L
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L IUCLID
Distillates, petroleum, hydrotreated heavy paraffinic	64742-54-7
Fish:	LC50 96 h Oncorhynchus mykiss >5000 mg/L
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L IUCLID

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 Coolants Plus 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:

Component	CAS	CA	MA	MN	NJ	PA
Distillates, petroleum, solvent-refined light paraffinic	64741-89-5	No	Yes	No	No	No
Paraffin oils, petroleum, catalytic dewaxed heavy	64742-70-7	No	Yes	No	No	No

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 isooctyl) 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; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; WHMIS - Workplace Hazardous Materials Information System (Canada).

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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 Plus Inc. 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 supplier to the user.