

# STARFIRE Purefleet Extreme HD ELC

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Date of issue: 01/08/2016

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Version: 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name & code : STARFIRE Purefleet Extreme HD ELC 50/50  
STARFIRE Purefleet Extreme HD ELC  
Concentrate

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

Use of the substance/mixture : Anything that requires pre-diluted or concentrated antifreeze

#### 1.3. Details of the supplier of the safety data sheet

Coolants Plus Inc.  
2570 Van Hook Ave.  
Hamilton, OH 45015  
T 1-888-258-8723

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC 1 (800) 424-9300  
CHEMTREC International +1 (703) 527-3887 (24/7)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-US)

Acute Toxicity 4 (Oral)

Specific Target Organ Toxicity - Repeated Exposure 2

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

GHS08

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS-US) : Wash hands thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Get medical advice/attention if you feel unwell. If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### 2.3. Other hazards

No additional information available.

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable.

#### 3.2. Mixture

Name	Product identifier	%
Ethylene glycol	(CAS No) 107-21-1	40 - 100
Diethylene glycol	(CAS No) 111-46-6	4 - 10

\* The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

# Safety Data Sheet

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell.

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

- Symptoms/injuries after inhalation : May cause respiratory tract irritation.
- Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
- Symptoms/injuries after ingestion : Harmful if swallowed. May cause stomach distress, nausea or vomiting.

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

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Carbon dioxide. Dry chemical. Foam. Water fog. Water spray.
- 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

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon, aldehydes, alcohols and ethers.
- Explosion hazard : Containers may rupture on heating.

### 5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

### 6.2. Methods and material for containment and cleaning up

- For containment : Eliminate sources of ignition. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation. Spill area may be slippery.

### 6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from heat, flames and sparks. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/ spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.
- Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Keep away from food, drink and animal foodstuffs.

### 7.3. Specific end use(s)

Not available.

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Ethylene glycol (107-21-1)		
ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (aerosol only)
OSHA	Not applicable.	

  

Diethylene glycol (111-46-6)		
ACGIH	Not applicable.	
OSHA	Not applicable.	

### 8.2. Exposure controls

Appropriate engineering controls	: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Hand protection	: Wear chemically resistant protective gloves.
Eye protection	: Chemical goggles or face shield.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	: Maintain levels below Community environmental protection thresholds.
Other information	: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Appearance	: Yellow liquid
Color	: Yellow
Odor	: Sweet
Odor threshold	: No data available
pH	: 8.5-9.0 <sup>1</sup> , 9.7-10.7 <sup>2</sup>
Melting point	: No data available
Freezing point	: -34 °F maximum
Boiling point	: No data available
Flash point	: 241 °F (ethylene glycol)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not flammable
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density at 60 °F	: 1.065 <sup>1</sup> , 1.110 - 1.145 <sup>2</sup>
Relative vapor density at 20 °C	: No data available
Solubility	: Water: 100 %
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2. Chemical stability

Stable under normal storage conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### 10.4. Conditions to avoid

Heat. Incompatible materials.

### 10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon, aldehydes, alcohols and ethers.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

#### HD POAT YELOW

LD50 oral rat	>300 but ≤2000 mg/kg (Calculated using ATE values)
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	No data available

#### Ethylene glycol (107-21-1)

LD50 oral rat	4700 mg/kg
LD50 dermal rat	10600 mg/kg

#### Diethylene glycol (111-46-6)

LD50 oral rat	12565 mg/kg
LD50 dermal rabbit	11890 mg/kg

Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May cause respiratory tract irritation.
Symptoms/injuries after skin contact	: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/injuries after ingestion	: Harmful if swallowed. May cause stomach distress, nausea or vomiting.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

### 12.2. Persistence and degradability

#### HD POAT YELOW

Persistence and degradability	Readily biodegradable.
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### 12.3. Bioaccumulative potential

#### HD POAT YELOW

Bioaccumulative potential	Not established.
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## 12.4. Mobility in soil

No additional information available.

## 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.  
Additional information : Empty containers may contain residues which are hazardous.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT  
UN-No.(DOT) : UN3082  
Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s. (Ethylene glycol)  
Class (DOT) : 9  
Hazard labels (DOT) :



Packing group (DOT) : III  
Reportable quantity (DOT) : Ethylene glycol (5,000 lb)

### Additional information

Other information : No supplementary information available.  
Special transport precautions : Do not handle until all safety precautions have been read and understood.

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Ethylene glycol (107-21-1)	
Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule
SARA Section 313 - Emission Reporting	1.0 %
Diethylene glycol (111-46-6)	
EPA TSCA Regulatory Flag	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule

### 15.3. US State regulations

#### HD POAT YELLOW

State or local regulations	This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm
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## SECTION 16: Other information

Date of issue : 01/08/2016  
Revision date : 01/08/2016  
Other information : None.

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