



Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name	Mixture
CAS No.	Mixture
Trade Name	STARFIRE TEC-A-START STARTING FLUID
Product Code	EN-3589

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

Identified Use(s)	Engine starting aid
Uses Advised Against	None
Company Identification	Coolants Plus, Inc. 2570 Van Hook Ave. Hamilton, OH. 45015
Telephone	(513) 892-4000
Fax	

Emergency telephone number

Emergency Phone No.	Transportation Emergency: CHEMTREC 24 hr. 1-800-424-9300 / 1 (703) 527-3887 (Collect calls accepted)
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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200)

Fam. Aerosol 1; Compressed dissolved gas; Carc. 2; Skin Irrit. 2; STOT SE 3; Asp. Tox. 1

Label elements

Hazard Symbol



DANGER

Signal word(s)

Hazard Statement(s)

Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May cause cancer.
Causes skin irritation. Repeated exposure may cause skin dryness or cracking.
May cause drowsiness or dizziness.
May be fatal if swallowed and enters airways.
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/eye protection.
Avoid breathing spray.
Protect from sunlight and do not expose to temperatures exceeding 50 °C/122 °F.
Wash hands and exposed skin after use.

Precautionary Statement(s)

Other hazards

Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	% wt. *	CAS No.	Hazard classification
Heptane, branched, cyclic and linear	70-80	426260-76-6	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Acute 2; H401 Aquatic Chronic 3; H412
Diethyl Ether	15-25	60-29-7	Flam. Liq. 1; H224 Acute Tox. 4; H302 STOT SE 3; H336
Carbon Dioxide	5 - 10	124-38-9	Compressed dissolved gas; H280
Ethanol	< 2	64-17-5	Flam. Liq. 2; H225 Eye Irrit. 2; H319
Chloroethane	< 1	75-00-3	Flam. Gas 1; H220 Carc. 2; H351 Aquatic Chronic 3; H412
Distillates (petroleum), hydrotreated heavy naphthenic	<0.5	64742-52-5	Asp. Tox. 1; H304
Distillates (petroleum), hydrotreated Light naphthenic	<0.5	64742-53-6	Asp. Tox. 1; H304

Additional Information – None

* The exact percentage withheld as a trade secret in accordance with 29 CFR 1910.1200.

SECTION 4: FIRST AID MEASURES**Description of first aid measures**

Inhalation	Move person to fresh air. If breathing is labored, administer oxygen. If symptoms develop, obtain medical attention.
Skin Contact	Wash affected skin with soap and water. If irritation (redness, rash, blistering) develops, get medical attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Do not induce vomiting. Do not give anything by mouth to an unconscious person. Get immediate medical attention.

Most important symptoms and effects, both acute and delayed May be fatal if swallowed and enters airways. Do NOT induce vomiting.

Indication of any immediate medical attention and special treatment needed IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

SECTION 5: FIRE-FIGHTING MEASURES**Extinguishing Media**

-Suitable Extinguishing Media	Extinguish with carbon dioxide, dry chemical, foam or water spray.
-Unsuitable Extinguishing Media	Do not use water jet.

Special hazards arising from the substance or mixture

Highly flammable vapor (flash point below 23°C).

Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep containers cool by spraying with water if exposed to fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Environmental precautions

Prevent liquid entering sewers, basements and work pits.

Methods and material for containment and cleaning up

Cover spills with inert absorbent material. Transfer to a container for disposal or recovery.

Reference to other sections

None

Additional Information

None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with skin and eyes. Use product in a well-ventilated area only. Do not use in confined spaces.

Conditions for safe storage, including any incompatibilities

-Storage temperature

Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F. Keep container tightly closed.

-Incompatible materials

This product should be stored away from sources of strong heat or oxidizing chemicals.

Specific end use(s)

Engine starting aid

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Heptane, branched, cyclic and linear	426260-76-6	500 ppm*	1500 mg/m ³	-----	-----	*n-heptane
Diethyl ether	60-29-7	400 ppm	400 ppm	-----	500 ppm	-----
Chloroethane	75-00-3	1000 ppm	100 ppm*	-----	-----	*A3
Carbon dioxide	124-38-9	-----	5000 ppm	-----	30,000 ppm	-----

#Assure minimum oxygen content of work atmosphere. *A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans

Recommended monitoring method

NIOSH 1500 (hydrocarbons, B.P. 36 - 126 °C); NIOSH 1610 (Ethyl ether); NIOSH 2519 (Ethyl chloride)

Exposure controls

Appropriate engineering controls

Provide adequate ventilation to ensure that the occupational exposure limit is not exceeded.

Personal protection equipment

Eye/face protection



Wear protective eyewear (goggles, face shield, or safety glasses).

Skin protection (Hand protection/ Other)



Wear suitable gloves if prolonged skin contact is likely (Nitrile rubber or Butyl rubber). Check with protective equipment manufacturer's data.

Respiratory protection



Normally no personal respiratory protection is necessary. In case of insufficient ventilation, wear suitable respiratory equipment. Check with protective equipment manufacturer's data.

Thermal hazards

Not normally required. Use gloves with insulation for thermal protection, when needed.

Environmental Exposure Controls

Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Color	Colorless
Odor	Sweetish, Hydrocarbon-like
Odor Threshold (ppm)	Not available
pH (Value)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available
Boiling point/boiling range (°C):	34 - 35 (Diethylether)
Flash Point (°C)	-45 (Diethylether)
Evaporation Rate	Not available
Flammability (solid, gas)	Extremely flammable
Explosive Limit Ranges	1.85% - 36.5% v/v (Diethylether)
Vapor pressure (Pascal)	7.16×10^4 (Diethylether)
Vapor Density (Air=1)	Not available
Density (g/ml)	Not available
Solubility (Water)	Not available
Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Point (°C)	175 (Diethylether)
Decomposition Temperature (°C)	Not available
Kinematic Viscosity (cSt)	<20 @ 40 °C
Explosive properties	Not available
Oxidizing properties	Not available
Other information	Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable.
Possibility of hazardous reactions	None anticipated.
Conditions to avoid	Avoid contact with heat and ignition sources.
Incompatible materials	This product should be stored away from sources of strong heat or oxidizing chemicals.
Hazardous decomposition product(s)	Carbon monoxide, Carbon dioxide, Acrid smoke

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation, Skin Contact, Eye Contact

Information on toxicological effects

Heptane, branched, cyclic and linear (CAS# 426260-76-6) - By analogy with similar materials:

Acute toxicity	Oral: LD50 >5 g/kg-bw Dermal: LD50 >2 g/kg-bw Inhalation: LC50 = 65 - 103 mg/L (Vapour), 4-hr. rat May cause drowsiness or dizziness. May be fatal if swallowed and enters airways.
Irritation/Corrosivity	Causes skin irritation. Repeated exposure may cause skin dryness or cracking. May cause eye irritation.
Sensitisation	It is not a skin sensitiser.
Repeated dose toxicity	NOAEC: 12350 mg/m3 (2 yr, inhal., rat, Systemic effects) LOAEC: 1650 mg/m3 (2 hr, inhal., rat, CNS effects) May cause drowsiness or dizziness.
Carcinogenicity	No data. It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity	There is no evidence of mutagenic potential.
Toxicity for reproduction	No information available

Chloroethane (CAS# 75-00-3)

NTP	IARC	ACGIH	OSHA	NIOSH
Clear Evidence in Female Mice	No.	A3 - Confirmed Animal Carcinogen	No.	Yes.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Heptane, branched, cyclic and linear (CAS# 426260-76-6) - By analogy with similar materials:

Short term	LL50 (96 hour): >13.4 mg/L (<i>Oncorhynchus mykiss</i>) EL50 (48 hour): 3 mg/l (<i>Daphnia magna</i> , mobility) EC50 (96 hour): 13 mg/l (<i>Pseudokirchnerella subcapitata</i>)
Long Term	NOELR (28 days) 1.5 mg/l (<i>Fish</i>) QSAR LOEC (21 days): 0.32 mg/l (<i>Daphnia magna</i>) NOEL (96 hour) 6.3 mg/l (Algae)
Persistence and degradability	Readily biodegradable.
Bioaccumulative potential	The product has no potential for bioaccumulation.
Mobility in soil	Not available.
Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods	Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.
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SECTION 14: TRANSPORT INFORMATION

	<u>U.S. DOT</u>	<u>Sea transport (IMDG)</u>	<u>Air transport (ICAO/IATA)</u>
UN number	1950	1950	1950
Proper Shipping Name	Aerosols, flammable	Aerosols, flammable	Aerosols, flammable
Transport hazard class(es)	2.1	2.1	2.1
Packing group	Not applicable	Not applicable	Not applicable
Environmental hazards	None assigned	None assigned	None assigned
Special precautions for user	None assigned	None assigned	None assigned

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

SECTION 15: REGULATORY INFORMATION

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

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
Chloroethane	75-00-3	< 1	1000

SARA 311/312 - Hazard Categories:

Fire Sudden Release Reactivity Immediate (acute) Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
Chloroethane	75-00-3	< 1

SARA 302 - Extremely Hazardous Substances (40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	TPQ (pounds)
None	----	----	----

California Proposition 65 List:

Chemical Name	CAS No.	Type of Toxicity
Toluene	108-88-3	Developmental
Chloroethane	45-00-3	Cancer

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

Date of preparation: June 23, 2015

Hazard Statement(s) and Risk Phrases Listed in: SECTION 2:/ SECTION 3:

Hazard Statement(s)

- H220: Extremely flammable gas.
- H224: Extremely flammable liquid and vapour.
- H225: Highly flammable liquid and vapor.
- H280: Contains gas under pressure; may explode if heated.
- H302: Harmful if swallowed.
- H304: May be fatal if swallowed and enters airways.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H336: May cause drowsiness or dizziness.
- H351: Suspected of causing cancer.
- H401: Toxic to aquatic life.
- H412: Harmful to aquatic life with long lasting effects.

Training advice: None.

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