ZEP Inc.
11627 178th Street
Edmonton, Alberta T5S 1N6
1-877-I-BUY-ZEP (428-9937)
www.zep.com

Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product name ZEPSTART ENGINE STARTER

Product use Aerosol Engine Starting Fluid

Product code 0306

Date of issue 06/09/16 **Supersedes** 07/15/13

Emergency Telephone Numbers

For MSDS Information:
Technical Services Group
Telephone (780) 453-8100
(Business Hours 8:00am - 5:00pm)

For Medical or Transportation Emergency
CANUTEC (24 Hours)
(613) 996-6666 - Call Collect

Prepared By
Technical Services Group
11627 178th Street
Edmonton, Alberta T5S 1N6

Section 2. Hazards Identification

Emergency overview

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects **Routes of Entry** Dermal contact. Eye contact. Inhalation.

Eyes Causes eye irritation. Inflammation of the eye is characterized by redness, watering and itching.

Skin Causes skin irritation. Skin inflammation is characterized by itching, scaling, or reddening. May be harmul if absorbed through the skin.

Inhalation Over-exposure by inhalation may cause respiratory irritation. Inhalation causes headaches, dizziness, drowsiness and nausea and may lead to unconsciousness. Can cause central nervous system (CNS) depression.

Ingestion Harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Chronic effects Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Prolonged skin contact may cause dermatitis with drying and cracking of skin. Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation, leading to frequent attacks of bronchial infection. Contains material which may cause damage to the following organs: kidneys, liver, mucous membranes, heart, brain, upper respiratory tract, skin, eyes, central nervous system (CNS).

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
HEPTANE; n-heptane	142-82-5	40 - 70
ETHYL ETHER; diethyl ether; ethane; 1,1-oxybis-	60-29-7	15 - 40

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops.

Inhalation Move exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion Aspiration hazard if swallowed. Can enter lungs and cause damage. If vomiting occurs, keep head lower than hips to help prevent aspiration. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flash Point Not available.

Flammable Limits Not available.

Flammability Extremely flammable. (CSMA)

Auto-ignition Temperature

Fire-Fighting Procedures Use an extinguishing agent suitable for the surrounding fire.

Fire hazard CONTENTS UNDER PRESSURE. In a fire or if heated, a pressure increase will occur and the container may burst. Bursting aerosol containers may be propelled from a fire at high speed. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Products of Combustion

Explosion hazard

Section 6. Accidental Release Measures

Spill Clean up Large spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Put on appropriate personal protective equipment (see section 8). Store and use away from heat, sparks, open flame or any other ignition source. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wash thoroughly after handling. Empty containers retain product residue and can be hazardous. Watch for accumulation in low confined areas.

Storage CONTENTS UNDER PRESSURE. Do not puncture or incinerate container. Do not store above the following temperature: 49°C (120.2°F). Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Product name | **Exposure limits**

No exposure limit value known.

Personal Protective Equipment (PPE)

Eyes Safety glasses.

Hands and Body Wear appropriate protective clothing to prevent skin contact. Recommended: Nitrile gloves. Viton gloves.

Respiratory Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Wear appropriate respirator when ventilation is inadequate.

Section 9. Physical and Chemical Properties

Physical State Liquid. [Aerosol.]

pH Not applicable

Boiling Point >35°C (>95°F)

Specific Gravity 0.7

Solubility Very slightly soluble in the following materials: cold water and hot water.

Freezing Point

Color Clear. Colorless.

Odor Ethereal. [Strong]

Vapor Pressure Not determined.

Vapor Density >1 [Air = 1]

Evaporation Rate >1 (butyl acetate = 1)

VOC (Consumer) 708.78 (g/l). 5.91 lbs/gal 100.00%

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility Keep away from heat, sparks and flame. Reactive or incompatible with the following materials: oxidizing materials and acids.

Hazardous Polymerization Under normal conditions of storage and use, hazardous polymerization will not occur.

Hazardous Decomposition Products carbon oxides (CO, CO_2)

Section 11. Toxicological Information

Acute Toxicity

Not available.

Section 12. Ecological Information

Aquatic Ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Not available.				

Section 13. Disposal Considerations

Waste Information

Waste must be disposed of in accordance with applicable regulations. Consult your local or regional authorities for additional information.

Waste Stream Code: D001
Classification: - [Hazardous waste.]
Origin: - [RCRA waste.]

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
TDG Classification	1950	Aerosols, flammable	2.1	-		**Explosive Limit and Limited Quantity Index** 1
IMDG Class	Not available.	Not available.	Not available.	-		

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment. Limited Quantity: Small quantities of controlled goods are not regulated as Dangerous Goods according to TDG regulations.

PG* : Packing group

Section 15. Regulatory Information

Canada

WHMIS (Canada) Class B-5: Flammable aerosol.
Class D-1B: Material causing immediate and serious toxic effects (Toxic).
Class D-2A: Material causing other toxic effects (Very toxic).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.