SAFETY DATA SHEET

SECTION 1) Chemical Product and Supplier's Identification

Product ID : Starting Fluid

Product Name : Starting Fluid

Revision Date : 10/06/2014

Manufacturer's Name : Martin Lubricants

Address : 484 East 6th Street Smackover, AR, US, 71762

Emergency Phone : CHEMTREC: 1-800-424-9300 **Date Printed :** 10/06/2014

Information Phone : 903-988-4211

Product/Recommended Uses: Starting fluid

SECTION 2) Hazards Identification

Classification:

Acute Toxicity - Category 4 (oral)
Aspiration Hazard - Category 1
Skin Corrosion/Irritation - Category 2
Eye Damage / Irritation - Category 2
Specific Target Organ Toxicity (STOT) Single Exposure Narcotic Effect - Category 3
Flammable Aerosol - Category 1
Acute - Environment - Category 1
Chronic - Environment - Category 1

Pictograms:

Signal Word:

Danger.

Hazard Statements:

Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
May be fatal if swallowed and enters airways.
Extremely flammable aerosol, Pressurized container may burst if heated.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements - General:

Read label before use.
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.

Precautionary Statements - Prevention:

Wash your hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

Use only outdoors or in a well-ventilated area.

Do not breathe dust/fume/gas/mist/vapors/spray.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Do not spray on an open flame or other ignition source.

Do not pierce or burn, even after use.

Avoid release to the environment.

Precautionary Statements - Response:

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

Rinse mouth.

IF ON SKIN: Wash with plenty of water.

Call a POISON CENTER/doctor if you feel unwell.

Specific treatment (see Section 4 First Aid Measures on this SDS).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

IF IN EYES: 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.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Get Medical advice/attention if you feel unwell.

Collect Spillage.

Precautionary Statements - Storage:

Store in a well ventilated place. Keep container tightly closed.

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Precautionary Statements - Disposal:

Dispose of contents/container to disposal recycling center.
Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

SECTION 3) Composition / Information on Ingredients

CAS	Chemical Name	% by Weight
0000142-82-5	N-HEPTANE	67% - 90%
0000060-29-7	ETHYL ETHER	10% - 22%
0000124-38-9	CO2	2% - 4%

SECTION 4) First-aid Measures

Inhalation:

Remove source of exposure or move person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If breathing has stopped, trained personnel should begin rescue breathing or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillator.

Eliminate all ignition sources if safe to do so.

Eye Contact:

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

Skin Contact:

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before re-use.

Ingestion:

Ingestion is not likely as an aerosol.

If ingested immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.

Gastric lavage should be only considered by medical personnel following intubation with a cuffed endotracheal tube.

SECTION 5) Fire-fighting Measures

Suitable Extinguishing Media:

Dry chemical, alcohol foam or carbon dioxide is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Unsuitable Extinguishing Media:

Direct stream of water will float and product can be reignited on surface of water.

Water spray can be used to cool containers exposed to heat or flame.

Specific Hazards in Case of Fire:

Carbon monoxide and carbon dioxide.

Vapors are heavier than air and may travel long distances and accumulate in low areas or spread along ground away from handling site. Eliminate all sources of ignition as vapor may ignite.

Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force.

Fire-fighting Procedures:

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special protective actions:

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) Accidental Release Measures

Emergency Procedure:

Spill (Land):Ventilate area, especially low places where heavy vapors might collect. Extinguish all ignition sources. Contain spill. Cover with inorganic absorbent material. Collect spilled material. Clean up residue. Place in an approved DOT container for disposal.

Spill procedures (water): Remove from surface by skimming or with suitable adsorbents. If a large spill occurs notify appropriate authorities.

Recommended equipment:

Positive pressure, full-facepiece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

Personal Precautions:

Avoid breathing vapours, mist or gas.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Use explosive proof equipment. Avoid contact with skin and eyes. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains/surface waters/ groundwater. Retain and dispose of contaminated wash water.

SECTION 7) Handling and Storage

General:

Wash hands after use.
Do not get in eyes, on skin or on clothing.
Do not breathe fumes/vapors.
Use good personal hygiene practices.
Eating, drinking and smoking in work areas is prohibited.
Remove contaminated clothing and protective equipment before entering eating areas.

Ventilation Requirements:

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements:

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and strong oxidizers. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container retain residue and may be dangerous.

Do not cut, drill, grind, weld or perform similar operations on or near containers.

Do not store in direct sunlight. Store containers below 120°F.

SECTION 8) Exposure Controls/Personal Protection

Appropriate Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Eye protection:

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids.If additional protection is needed for entire face, use in combination with a face shield.

Skin protection:

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over- boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization.The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory protection:

Use of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Full-face organic vapor and acid gas respirator, full-face supplied air respirator, full-face pressure demand self-contained breathing apparatus.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA-Tables-Z1,2,3	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
CARBON DIOXIDE	5000	9000			1			5000	9000	30000	54000	
DIETHYL ETHER	400	1200			1							
HEPTANE	500	2000			1			85	350			

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH Carcinogen	ACGIH Notations	ACGIH TLV Basis
CARBON DIOXIDE	5000	9000	30000	54000			Asphyxia
DIETHYL ETHER	400	1210	500	1520			CNS impair; URT irr
HEPTANE	400	1640	500	2050			CNS impair; URT irr

SECTION 9) Physical and Chemical Properties

Physical Properties

Density [lb/gal]	5.842
% Solids By Weight	3.500%
Density VOC	5.637
% VOC	96.500%
VOC Actual [lb/gal]	5.637
VOC Actual [g/l]	675.519
Specific Gravity	0.700
VOC Regulatory [lb/gal]	5.637
VOC Regulatory [g/l]	675.525

Appearance	Colorless liquid
Odor Threshold	N.A.
Odor Description	Ether like odor
pH	N.A.
Flammability	Flashpoint below 73 °F
Flash Point Symbol	<
Flash Point	0 °F
Lower Explosion Level	1.0 %
Upper Explosion Level	12.8 %
Vapor Pressure	110 psig (Standard Temperature and Pressure, 25°C at 1 ATM)
Vapor Density	1+
Water Solubility	Not soluble
Viscosity	N.A.
Freezing Point	N.A.
Melting Point	N.A.
Low Boiling Point	148 °F
High Boiling Point	225 °F
Auto Ignition Temp	N.A.
Decomposition Pt	N.A.
Evaporation Rate	1+
Coefficient Water/Oil	N.A.

SECTION 10) Stability and Reactivity

Stability:

Stable, avoid open flames and high temperature (above 120°F) and direct sunlight.

Hazardous Polymerization:

Will not occur.

Conditions to Avoid:

Avoid heat, flame, and contact with incompatible materials.

Avoid high temperatures and product contamination.

Incompatible Materials:

Strong oxidizers, selected amines, strong acids or bases.

Hazardous Decomposition Products:

Carbon oxides can form on incomplete combustion.

SECTION 11) Toxicological Information

Acute Toxicity:

Oral : Harmful if swallowed.

If ingested in large doses, it can cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

If inhaled: Severely irritating and damaging to the central nervous system and to the lungs. Vapors or mist may cause irritation to nose, throat, headache, nausea, vomiting, dizziness, drowsiness, euphoria, loss of coordination and disorientation. In poorly ventilated areas or confined spaces, unconsciousness and asphyxiation may result.

Skin Corrosion/Irritation:

Causes skin irritation.

Serious Eye Damage/Irritation:

Causes serious eye irritation.

Carcinogenicity:

No data available.

Germ Cell Mutagenicity:

No data available.

Reproductive Toxicity:

No data available.

Respiratory or Skin Sensitization:

Prolonged or repeated contact may make skin more sensitive to other skin sensitizers.

Specific Target Organ Toxicity - Single Exposure:

May cause drowsiness or dizziness.

Specific Target Organ Toxicity - Repeated Exposure:

No data available.

Aspiration Hazard:

May be fatal if swallowed and enters airways.

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

0000142-82-5 N-HEPTANE

LC50 (rat): approximately 25000 ppm (4-hour exposure); cited as 103 g/m3 (4-hour exposure) (6)

LD50 (oral, rat): Greater than 15000 mg/kg (4)

0000060-29-7 ETHYL ETHER

LC50 (rat): 32000 ppm (4-hour exposure) (3/6 animals died) (13)
LC50 (mouse): 36730 ppm (4-hour exposure); cited as 0.18 cc/L (3-hour exposure)(14)

LD50 (oral, rat): 1200 mg/kg (reported as 1.7 mL/kg) (15)
LD50 (dermal, rabbit): greater than 14200 mg/kg (cited as greater than 20 mL/kg) (13)

Potential Health Effects - Miscellaneous

0000142-82-5 Heptane

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, respiratory system, skin. May cause central nervous system effects such as dizziness, headache, nausea, and loss of consciousness. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

SECTION 12) Ecological Information

Toxicity:

Very toxic to aquatic life with long lasting effects.

Persistence and Degradability:

No data available.

Bio-accumulative Potential:

No data available.

Mobility in Soil:

No data available.

Other Adverse Effects:

No data available.

SECTION 13) Disposal Considerations

Waste Disposal:

Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

Place used, contaminated or excess material into disposable containers and dispose of in a manner consistent with local and state regulations. Contact local environmental or health authorities for approved disposal of this material. Most used oil is reclaimed or incinerated.

SECTION 14) Transport Information

U.S. DOT Information:

Bulk Shipping Description: Corrosive Non-Bulk Shipping Description: ORM-D, Consumer Commodity
Identification Number: UN 1950
Hazard Classification: Aerosols, Corrosive, Packing Group II
Other: See 49 CFR for additional requirements for descriptions, allowed modes of transport and packaging. For more information concerning spills during transport, consult latest DOT Emergency Response Guidebook for Hazardous Materials Incidents, DOT P 5800.3.

IMDG Information:

Proper Description: Aerosols (Limited Quantity)
Hazard Class: 2.1
Hazard Sub-class: Not determined
UN Number: UN 1950
Packaging Group: Not applicable
Marine Pollutant: No

IATA Information:

Not determined.

SECTION 15) Regulatory Information

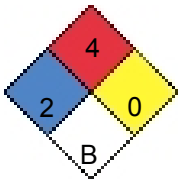
CAS	Chemical Name	% By Weight	Regulation List
0000060-29-7	DIETHYL ETHER	10% - 22%	DSL,CERCLA,SARA312,TSCA,RCRA,TX_ESL
0000124-38-9	CARBON DIOXIDE	2% - 4%	DSL,SARA312,TSCA,TX_ESL
0000142-82-5	HEPTANE	67% - 90%	DSL,SARA312,TSCA,TX_ESL

SECTION 16) Other Information Including Information on Preparation and Revision of the SDS

Glossary:

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

HMIS



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