



EXCAVATION

6

STARTING FLUID



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MATERIAL SAFETY DATA SHEET

SNAP® STARTING FLUID

1. PRODUCT AND COMPANY IDENTIFICATION

MSDS Number: 13628

Version Date: 6/20/2001

Product Name: SNAP® STARTING FLUID

Product Use: No information available

Synonyms: S540

Manufacturer

Pennzoil-Quaker State Company
P.O. Box 2967
Houston, TX 77252-2967
USA

Phone Numbers

Medical Emergency: 1-800-546-6040
Transportation Emergency (USA): 1-800-468-1263
Transportation Emergency (International):
1-352-323-3500 (Call Collect)
MSDS Assistance: 1-800-546-6227
Fax On Demand: 1-800-546-6227
Technical Assistance: 1-800-458-4998
Customer Service: 1-800-468-8397
Fax Number: 713-217-3181
Internet Address: www.MSDS.PZLQS.com

2. COMPONENT INFORMATION

Component	CAS No.	Weight Percent Range	Hazardous in Blend
HEPTANE	142-82-5	60 - 65	Yes
ETHYL ETHER	60-29-7	20 - 30	Yes
CARBON DIOXIDE	124-38-9	5 - 10	Yes
ANTIOXIDANT	TRADESECRET	< 1	No

This product is **HAZARDOUS** according to OSHA 29 CFR 1910.1200.

Hazards:

Flammable/Combustible X **Acute Toxin** X **Chronic Toxin** **Carcinogen**
Pressure X **Reactive** **Exposure Limit** X **Target Organ** **Other**

Other: These petroleum naphthas and/or solvents are a complex blend of light petroleum distillates.

3. HAZARDS IDENTIFICATION

Emergency and Hazards Overview

DANGER: FLAMMABLE (OR EXTREMELY FLAMMABLE). HARMFUL OR FATAL IF SWALLOWED. VAPOR HARMFUL. CONTENTS UNDER PRESSURE.

NFPA Ratings: **Health** 1 **Flammability** 4 **Reactivity** 0

Primary Route of Exposure: **Skin** **Inhalation** X **Eye**

Health Effect Information

Eye Contact: Avoid eye contact. This product has not been tested for acute eye hazards. May be irritating to the eyes upon direct contact. Exposure to mists and vapors may be irritating to the eyes. These effects are transient, and complete recovery follows.

Skin Contact: This product may cause slight skin irritation upon direct contact. Prolonged or repeated skin contact may result in dryness, chapping, and reddening.

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Inhalation: This product is not expected to pose an inhalation hazard under conditions of foreseeable use. Caution should be taken to minimize exposure to aerosols/mists of this product. Acute and chronic overexposures may be irritating to the respiratory tract. Inhalation of high concentrations of this product can cause central nervous system depression and narcosis. Severe intoxication may lead to drowsiness, dullness, numbness, and headache followed by dizziness, weakness, and nausea. While affected, the ability to perform skilled tasks is compromised. Exposure to extremely high concentrations may have anesthetic effects but are completely reversible upon cessation of exposure. Intentional misuse by deliberately concentrating and inhaling this product can be harmful or fatal.

Ingestion: Not applicable by this route of exposure. Ingestion is unlikely for aerosol products.

Medical Conditions Aggravated by Exposure: Drying and chapping may make the skin more susceptible to other irritants, sensitizers and disease.

Other: No information available

4. FIRST AID INFORMATION

Eye Contact: Immediately flush eyes with large amounts of water and continue flushing for 15 minutes or until irritation subsides. If irritation persists, seek medical attention.

Skin Contact: Wash contaminated area thoroughly with soap and water. Use a hand or skin lotion to prevent dryness. If redness or irritation occurs and persists, seek medical attention.

Inhalation: If victim exhibits signs of vapor intoxication remove to fresh air. If discomfort persists seek medical attention. If breathing has stopped or is irregular, administer artificial respiration and supply oxygen if it is available. If victim is unconscious, remove to fresh air and seek immediate medical attention.

Ingestion: Ingestion is unlikely for aerosol products. Accidental spraying into the mouth will not result in any harmful effects. No treatment is necessary under ordinary circumstances.

Notes to Physician: No information available

Other: No information available

5. FIRE AND EXPLOSION INFORMATION

Flammable Properties

Flash Point (aerosol concentrate): No data available

Test Method: No information available

Flame Extension: > 18"

Test Method: CPSC 1500.45

Flammable Limits in Air

Upper Percent: 48%

Lower Percent: 1.8%

Autoignition Temperature: No data available

Test Method: No information available

NFPA Classification: Level 3 Aerosol (NFPA 30B)

Extinguishing Media: Use water spray (fog), dry chemical, foam, or carbon dioxide.

Fire Fighting Measures

Special Fire Fighting Procedures and Equipment: Water may be ineffective but can be used to cool containers exposed to heat or flame to prevent vapor pressure buildup and possible container rupture.

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Unusual Fire and Explosion Conditions: Caution! Contents are under pressure and can explode when exposed to heat or flames. Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide, and other oxides may be generated as products of combustion.

Hazardous Combustion By-Products: No information available

Other: No information available

6. ACCIDENTAL RELEASE MEASURES

Personnel Safeguards: Remove all sources of ignition. Provide adequate ventilation to remove vapors and mists. Consult Health Effect Information in Section 3, Personal Protection Information in Section 8, Fire and Explosion Information in Section 5, and Stability and Reactivity Information in Section 10.

Regulatory Notifications: No notification required

Containment and Clean up: No special cleanup procedures are necessary.

Other: No information available

7. HANDLING AND STORAGE INFORMATION

Handling: All ignition sources in the area should be controlled. See NFPA 30B, Code for the Manufacture and Storage of Aerosol Products. Contents under pressure and can explode when exposed to heat or open flame. Caution!--Do not puncture or incinerate.

Storage: Do not store at temperatures greater than 120 F.

Empty Container Warnings

Drums: Not applicable

Plastic: Not applicable

Other: No information available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION INFORMATION**Exposure Limits and Guidelines**

Component	CAS No.	Exposure Limit
HEPTANE	142-82-5	OSHA - PEL: TWA 500 ppm ACGIH - TLV: TWA 400 ppm ACGIH - TLV: STEL 500 ppm
ETHYL ETHER	60-29-7	OSHA - PEL: TWA 400 ppm ACGIH - TLV: TWA 400 ppm ACGIH - TLV: STEL 500 ppm
CARBON DIOXIDE	124-38-9	OSHA - PEL: TWA 5000 ppm ACGIH - TLV: TWA 5000 ppm ACGIH - TLV: STEL 30000 ppm

Personal Protective Equipment

Eye/Face Protection: Eye protection is not required under conditions of normal use. If material is handled such that it could be sprayed into eyes, wear plastic face shield or splash-proof safety goggles.

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Skin Protection: Skin protection is not required under conditions of normal use. For prolonged or repeated exposures, use impervious clothing (boots, gloves, aprons, etc.) over parts of the body subject to exposure. Launder soiled clothes.

Respiratory Protection: Respiratory protection is not required under conditions of normal use. If excessive levels of mists or vapors are generated while using this product, use an organic vapor respirator. See Section 3, Health Effect Information, Inhalation.

Personal Hygiene: Consumption of food and beverage should be avoided in work areas where this product is present. Always wash hands and face with soap and water before eating, drinking, or smoking.

Engineering Controls / Work Practices

Ventilation: General room ventilation is normally sufficient to prevent buildup of hazardous concentrations. Providing adequate ventilation to keep exposure levels below the permissible exposure limits or flammability limits will prevent any physiological effects.

Other: No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Pale yellow , clear	
Odor: Etheral - strong	Vapor Pressure: 90 - 100 psig @ 68 F
Physical state: Liquid	Vapor Density (air=1): 2.5
pH: No data available	Percent Volatile by Volume: > 99 %
Boiling Point: No data available	Volatile Organic Content: No data available
Melting Point: Not applicable	Molecular Weight: No data available
Specific Gravity: 0.7	Average Carbon Number: No data available
Pour Point: No data available	Viscosity @ 100 F: No data available
	Viscosity @ 40 C: No data available
Solubility in Water: Insoluble in water	
Octanol / Water Coefficient: Log K_{ow} = No data available	

10. STABILITY AND REACTIVITY INFORMATION

Chemical Stability: Stable

Conditions to Avoid: Keep away from heat, sparks, open flames and other ignition sources.

Incompatible Materials to Avoid: May react with strong oxidizing agents.

Other: No information available

11. TOXICOLOGICAL INFORMATION

Primary Eye Irritation: No information available

Primary Skin Irritation: No information available

Acute Dermal Toxicity: No information available

Subacute Dermal Toxicity: No information available

Dermal Sensitization: No information available

Inhalation Toxicity: No information available

Inhalation Sensitization: No information available

Oral Toxicity: No information available

Mutagenicity: No information available

Carcinogenicity: No information available

Reproductive and Developmental Toxicity: No information available

Teratogenicity: No information available

Immunotoxicity: No information available

Neurotoxicity: No information available

Other: No information available

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: No information available

Terrestrial Toxicity: No information available

Chemical Fate and Transport: No information available

Other: No information available

13. DISPOSAL INFORMATION

Regulatory Information: Dispose of residual products and empty containers responsibly.

Waste Disposal Methods: Waste material may be landfilled or incinerated at an approved facility.

Other: No information available

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT)

Highway / Rail (Bulk): Not Regulated

Highway / Rail (Non-Bulk): Not Regulated

The DOT description is provided to assist in the proper shipping classification of this product and may not be suitable for all shipping descriptions.

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International Information

Vessel: IMDG Regulated: ☐ IMDG Not Regulated: ☒
Air: ICAO Regulated: ☐ ICAO Not Regulated: ☒

Other: No information available

15. Regulatory Information

Regulatory Lists Searched: The components listed in Section 2 of this MSDS were compared to substances that appear on the following regulatory lists. Each list is numerically identified. See Regulatory Search Results below.

Health & Safety: 10 - IARC carcinogen, 11 - NTP carcinogen, 12 - OSHA carcinogen, 15 - ACGIH TLV, 16 - OSHA PEL, 17 - NIOSH exposure limit, 20 - US DOT Appendix A, Hazardous substances, 22 - FDA 21 CFR Total food additives, 23 - NFPA 49 or 325

Environmental: 30 - CAA 1990 Hazardous air pollutants, 31 - CAA Ozone depleters, 33 - CAA HON rule, 34 - CAA Toxic substance for accidental release prevention, 35 - CAA Volatile organic compounds (VOC's) in SOCM, 41 - CERCLA / SARA Section 302 extremely hazardous substances, 42 - CERCLA / SARA Section 313 emissions reporting, 43 - CWA Hazardous substances, 44 - CWA Priority pollutants, 45 - CWA Toxic pollutants, 46 - EPA Proposed test rule for hazardous air pollutants, 47 - RCRA Basis for listing - Appendix VII, 48 - RCRA waste, 49 - SDWA - (S)MCLs

International: 50 - Canada - WHMIS Classification of substance, 54 - Mexico - Drinking water - ecological criteria, 55 - Mexico - Wastewater discharges, 56 - US -TSCA Section (12)(b) - export notification

State Lists: 60 - CA - Proposition 65, 61 - FL - Substances, 62 - MI - Critical materials, 63 - MA - RTK, 64 - MA - Extraordinarily hazardous substances, 65 - MN - Hazardous substances, 66 - PA - RTK, 67 - NJ - RTK, 68 - NJ - Environmental hazardous substances, 69 - NJ - Special hazardous substances

Inventories: 80 - Canada - Domestic substances , 81 - European - EINECS, 82 - Japan - ENCS, 83 - Korea - Existing and evaluated chemical substances, 84 - US - TSCA , 85 - China Inventory

Regulatory Search Results:

CARBON DIOXIDE: 15, 16, 17, 22, 50, 61, 63, 65, 66, 67, 69, 80, 81, 82, 83, 84, 85

ETHYL ETHER: 15, 16, 20, 23, 35, 47, 48, 50, 61, 63, 65, 66, 67, 68, 69, 80, 81, 82, 83, 84, 85

HEPTANE: 15, 16, 17, 23, 50, 61, 63, 65, 66, 67, 69, 80, 81, 82, 83, 84, 85

U.S. TSCA Inventory: All components of this material are on the US TSCA Inventory.

SARA Section 313: Consumer products are not regulated under SARA, Title III, Section 313.

IARC: No information available

SARA 311 / 312 Categories

Acute: ☒ Chronic: ☒ Fire: ☒ Pressure: ☒ Reactive: ☐
Not Regulated: ☐

Canadian WHMIS Classification

Class A - Compressed gas

Class B - Flammable and Combustible Material, Division 2, Flammable Liquids

Class D - Poisonous and infectious material, Division 2B, Toxic Material

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European Union Classification

Hazard Symbols:

"3" Aerosol

Dangerous for the environment / N / dead tree and fish in square

Extremely flammable / F+ / flame in square.

Harmful / Xn / X in square.

Risk Phrases:

R12: Extremely flammable.

R51/53: Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

R65: Harmful: may cause lung damage if swallowed.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

Safety Phrases:

S2: Keep out of the reach of Children.

S23: Do not breathe gas/fumes/vapour/spray.

S24: Avoid contact with skin.

S62: If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Other: No information available.

16. OTHER INFORMATION

Health and Environmental Label Language

Front Label:

DANGER: FLAMMABLE (OR EXTREMELY FLAMMABLE). HARMFUL OR FATAL IF SWALLOWED. VAPOR HARMFUL. CONTENTS UNDER PRESSURE.

Read carefully other cautions on back.

Back Label:

DANGER: Contains petroleum distillates. Prolonged and repeated skin contact may cause drying of skin.

PRECAUTIONARY MEASURES: Do not puncture, incinerate or store above 120 F. Avoid prolonged exposure to sunlight. Keep away from heat, sparks, flames and other ignition sources. Exposure to heat may cause can to burst. Avoid breathing of mists and vapors. Use only in well ventilated areas. Avoid skin and eye contact. Wash thoroughly after handling.

FIRST AID: If swallowed, do not induce vomiting. Call physician immediately. For eye contact, wash thoroughly with water. If inhaled, breathe fresh air. If not breathing, give artificial respiration. Call physician immediately. Use only as directed. Intentional misuse by deliberately concentrating and/or inhaling can be harmful or fatal.

KEEP OUT OF REACH OF CHILDREN.

Note: For automotive products used near engine, add on top of back panel: Keep away from battery terminals.

MSDS Revisions

Previous Version Date: 3/16/2001

Previous Version Information

No information available

Other

No information available

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Prepared By:

Pennzoil-Quaker State Company
Environmental, Safety, Health, & DOT Compliance
P.O. Box 2967
Houston, TX 77252-2967 USA

Disclaimer of Warranty: The information contained herein is based upon data and information available to us, and reflects our best professional judgement. This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, Pennzoil-Quaker State Company must rely upon the hazard evaluation of such components submitted by that product's manufacturer or importer. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent. Since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.

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MATERIAL SAFETY DATA SHEET
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Date Prepared: 01/14/02
Date Printed: 01/02/07
MSDS No: 503.0340955-001.005
NAPA PREM STARTING FLUID

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: NAPA PREM STARTING FLUID
SAP Material No: PYSFP11
General or Generic ID: SOLVENT BLEND
Company Telephone Numbers
The Valvoline Company Emergency: 1-800-274-5263
P.O. Box 14000
Lexington, KY 40512 Information: 1-859-357-7206

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s) CAS Number % (by weight)

HEPTANE 142-82-5 60.0- 70.0
ETHYL ETHER ACS REAGENT GRADE 60-29-7 23.0- 33.0
CARBON DIOXIDE 124-38-9 1.0- 11.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

May cause mild eye irritation.

Skin

Can cause skin irritation. Prolonged or repeated contact may dry and crack the skin. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

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Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See

Section 8).

Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), loss of appetite, loss of coordination irregular heartbeat, narcosis (dazed or sluggish feeling).

Target Organ Effects

testis damage, lung damage, visual impairment, central nervous system effects.

Developmental Information

There are no data available for assessing risk to the fetus from maternal exposure to this material.

Cancer Information

This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

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Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact, Eye contact.

4. FIRST AID MEASURES

Eyes

If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Note to Physicians

Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 3 - Swallowing) when deciding whether to induce vomiting. Preexisting

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disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions), Individuals with pre-existing heart disorders may be more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

5. FIRE FIGHTING MEASURES

Flash Point

Not applicable

Explosive Limit

(for component) Lower 1.0 %

Autoignition Temperature

No data

Hazardous Products of Combustion

May form:

Fire and Explosion Hazards

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Extinguishing Media

No data

Fire Fighting Instructions

Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

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NFPA Rating

Health - 1, Flammability - 4, Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Small Spill

Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Absorb liquid on vermiculite, floor absorbent or other absorbent material. Persons not wearing proper personal protective equipment should be excluded from area of spill.

Large Spill

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Eliminate all ignition sources (flares, flames, including pilot lights, electrical sparks).

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five gallon pails and larger metal containers including tank cars and tank trucks should be grounded and/or bonded when material is transferred. Precautions during use: avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing impervious protective gloves. As with all products of this nature, good personal hygiene is essential. Hands and other exposed areas should be washed thoroughly with soap and water after contact, especially before eating and/or smoking. Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material. Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering or pumping at high flow rates.

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If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids.

Storage

Do not store near extreme heat, open flame, or sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection

Wear resistant gloves (consult your safety equipment supplier).
To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (See Exposure Guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (consult your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines

Component

HEPTANE (142-82-5)

OSHA VPEL 1600.000 mg/m3 - TWA

OSHA VPEL 400.000 ppm - TWA

OSHA VPEL 500.000 ppm - STEL

OSHA VPEL 2000.000 mg/m3 - STEL

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ACGIH TLV 400.000 ppm - TWA

ACGIH TLV 1640.000 mg/m3 - TWA

ACGIH TLV 2050.000 mg/m3 - STEL

ACGIH TLV 500.000 ppm - STEL

ETHYL ETHER ACS REAGENT GRADE (60-29-7)

No exposure limits established

CARBON DIOXIDE (124-38-9)

OSHA VPEL 10000.000 ppm - TWA

OSHA VPEL 18000.000 mg/m3 - TWA

OSHA VPEL 54000.000 mg/m3 - STEL

OSHA VPEL 30000.000 ppm - STEL

ACGIH TLV 9000.000 mg/m3 - TWA

ACGIH TLV 5000.000 ppm - TWA

ACGIH TLV 54000.000 mg/m3 - STEL

ACGIH TLV 30000.000 ppm - STEL

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for component) 94.0 F (34.4 C)

Vapor Pressure

(for component) 439.000 mmHg

Specific Vapor Density

> 1.000 @ AIR=1

Specific Gravity

.690 - .720 @ 77.00 F
Liquid Density
5.860 lbs/gal @ 77.00 F
.705 kg/l @ 25.00 C

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Percent Volatiles (Including Water)

No data
Evaporation Rate
SLOWER THAN ETHYL ETHER
Appearance
No data
State
LIQUID
Physical Form
No data
Color
No data
Odor
No data
pH
Not applicable
Flame Propagation
> 18.000 in

10. STABILITY AND REACTIVITY

Hazardous Polymerization
Product will not undergo hazardous polymerization.
Hazardous Decomposition
May form: carbon dioxide and carbon monoxide, various hydrocarbons.

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Chemical Stability

Stable.
Incompatibility
Avoid contact with: aldehydes, alkanol amines, amines, ammonia, chlorinated solvents, oxygen, strong bases, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information

Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:

CONSUMER COMMODITY, ORM-D

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Container/Mode:

CASES/SURFACE - ORM-D EXCEPTION

NOS Component:

None

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs) Component

333 DIETHYL ETHER

15. REGULATORY INFORMATION

US Federal Regulations

CERCLA RQ - 40 CFR 302.4

None

SARA 302 Components - 40 CFR 355 Appendix A

None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed(X) Fire(X) Reactive() Sudden

Release of Pressure()

SARA 313 Components - 40 CFR 372.65

None

International Regulations

Inventory Status

Not determined

State and Local Regulations

California Proposition 65

None

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New Jersey RTK Label Information
N-HEPTANE 142-82-5
CARBON DIOXIDE 124-38-9
Pennsylvania RTK Label Information
HEPTANE (N-) 142-82-5
CARBON DIOXIDE 124-38-9

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Mac's Starting Fluid

MATERIAL SAFETY DATA SHEET

Effective Date: 5-21-04 Revision Date: none

Mac's Starting Fluid

Section 1 - Product and Company Identification

PRODUCT NAME: Mac's Starting Fluid

MANUFACTURER'S NAME: EMERGENCY TELEPHONE NUMBER

Technical Chemical Corp. (817)645-6088

P O BOX 139

CLEBURNE , TX 76033 MISCELLANEOUS INFORMATION

MATERIAL SAFETY DATA SHEET

Effective Date: 5-21-04 Revision Date: none

Mac's Starting Fluid

Section 1 - Product and Company Identification - Continued

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens Starting Fluid 25%

MSDS NO. 6762

Revision Date: 03/28/2002

Date Printed 05/21/2004

Page 1 of 1

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Johnsens Starting Fluid 25%

Chemical Family: ETHER

Synonyms: None

Emergency Telephone (24 hr.): 24-Hour Emergency Information: CHEMTREC (800) 424-9300

Supplier: Technical Chemical Company, P.O. Box 139, Cleburne, Texas 76033

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient/CAS No.

wt. %

OSHA PEL

TWA

OSHA PEL
 Ceiling Limits
 ACGIH TLV
 TWA
 ACGIH TLW
 STEL
 Heptane
 142-82-5 40-50 500 ppm: 2000
 mg/m3
 None Established 400 ppm: 1640 mg/m3 500 ppm
 Ethyl Ether
 60-29-7
 23-30 400 ppm None Established 400 ppm 500 ppm
 Propane
 74-98-6 15-25 1000 ppm Not Known 2500 ppm Not Known
 Carbon Dioxide
 124-38-9
 2-10 5000 ppm
 (exposures <10,000
 ppm to be cited de
 minimus)
 Not Known 5000 ppm 30,000 ppm
 Iso-Butane
 75-28-5
 5-15 None Established None Established None Established None Established
 Lubricating Oil
 64742-52-5 0-5 Not known Mist 5 mg/m3 TLV Mist 5 mg/m3 8
 HR.
 Not Known
 This product contains trace amounts of (<15 ppm) of Butylated hydroxytoluene
 (BHT) as an inhibitor to prevent or reduce
 the formation of potentially explosive peroxides.
 3. HAZARDS IDENTIFICATION
 Emergency Overview: Danger: Extremely flammable. Breathing high
 concentrations of vapor or mist may cause nausea, vomiting, central
 nervous system (CNS) depression and asphyxiation. Symptoms may include
 headache, dizziness, blurred vision, slurred

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MATERIAL SAFETY DATA SHEET

Effective Date: 5-21-04 Revision Date: none

Mac's Starting Fluid

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Section 1 - Product and Company Identification - Continued

speech, memory loss, confusion, fatigue, loss of consciousness, convulsions,
 paralysis, or coma. This material is irritating
 to skin, eyes and respiratory tract. Keep away from heat, sparks and flame.
 Prolonged or repeated inhalation or ingestion
 may result in kidney and liver changes.

HMIS Classification: Health: *2 Flammability: 4 Physical Hazard: 2

NFPA Rating: Health: 2 Flammability: 4 Reactivity: 1

4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush
 eyes with plenty of water for at least 15 minutes and get
 medical attention immediately after flushing. Do not permit victim to rub

eyes.

Ingestion: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person. Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin Contact: Wash with soap and water for 15 minutes. If irritation persists or signs of toxicity occur, seek medical attention. Remove contaminated clothing and shoes, and launder before reuse.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point F(C): <-10 F

Flash Point Method: TAG Closed Cup

Flammable Limits in Air - Lower (%): 1.2% (Lowest Component)

Flammable Limits in Air - Upper (%): 6.7% (Lowest Component)

Autoignition Temperature F(C): 356 F (Lowest Component)

Extinguishing Media: Dry chemical. Carbon dioxide. Alcohol foam. Use water spray to keep containers cool that are

Trade Name: Johnsens Starting Fluid 25% MSDS NO. 6762

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exposed to heat or flames.

Protection Of Fire-Fighters:

Special Fire-Fighting Procedures: Wear approved positive-pressure self-contained breathing apparatus and protective clothing. Vapor may cause flash fire. Fight from a maximum distance or use unmanned hose holders or monitor

nozzles. Containers can build up pressure if exposed to heat; cool with flooding quantities of water

until well after the fire is out. Withdraw immediately in case of rising sound from venting safety

devices or discoloration of vessel.

Hazardous Combustion Products: Carbon Dioxide. Carbon Monoxide.

Aerosol Comments: NFPA Level 3 Aerosol

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective clothing and equipment to prevent skin and eye contact.

Spill Procedures: Contain any liquid from leaking containers. Avoid all sources of ignition; heat, sparks and open flames.

Do not puncture or incinerate container. Contents under pressure. Wear proper protective equipment as specified in the protective equipment section. Remove sources of ignition. Leaking

MATERIAL SAFETY DATA SHEET

Effective Date: 5-21-04 Revision Date: none

Mac's Starting Fluid

Section 1 - Product and Company Identification - Continued

containers should be removed to an isolated, well-ventilated area and transferred to other suitable containers. Wipe, scrape, or soak up in an inert material and put in a container intended for flammable materials for disposal.

Environmental Precautions: Do not allow to enter sanitary drains, sewer or surface and subsurface waters. Keep out of lakes, ponds or streams.

7. HANDLING AND STORAGE

Handling and
Storage:

Caution: Contents under pressure. Keep away from heat and open flame. Use only in a well ventilated area. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Do not puncture, incinerate or store above 120 F. Exposure to high temperatures may cause bursting. DO NOT store in the passenger compartment of an automobile.

Store in a cool, dry place, out of direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use in a well ventilated area. Local exhaust ventilation as necessary to maintain exposures to within applicable limits.

Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.

Skin Protection: Avoid skin contact. Wear protective clothing and gloves.

Respiratory Protection: Do not breathe mist or vapor. Use in a well ventilated area. Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to pale yellow liquid

Odor: PUNGENT SWEET pH Value: Not Determined

Vapor Pressure: Not Determined Vapor Density (Air=1): >1.5 Approximate

Boiling Point (F): -44 F (Lowest Component) Melting/Freezing Point: Freezing -176F (Ether)

Solubility in Water: PARTLY SOLUBLE Bulk Density at 20C: Not Determined

Molecular Weight: Mixture Evaporation Rate: Not Determined

Viscosity: Not Determined. Specific Gravity (H2O=1): Not Determined

VOC Content(%): Not determined. Decomposition Temperature: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of handling, use and transportation.

Conditions to Avoid: Keep away from heat, sparks and flame. Avoid any source of ignition. Do not expose to heat or store at temperatures above 120 F.

Materials to Avoid: Contact with oxidizing agents. Concentrated oxygen.

Nitric acid. Avoid contact with chlorine in the presence of light.

Hazardous Decomposition Products: Carbon monoxide. and other asphyxiants.

Explosive peroxides. Will react with nitric acid to form explosive nitrates.

Hazardous Polymerization: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Ingredient/CAS No.

wt. %

Route

Species

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MATERIAL SAFETY DATA SHEET

Effective Date: 5-21-04 Revision Date: none

Mac's Starting Fluid

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Section 1 - Product and Company Identification - Continued

Dose

Heptane

142-82-5

40-50 Inhalation Rats LC50 103 gm/m3/4H

Ethyl Ether

60-29-7 23-30 Inhalation Mice LC50 31000 ppm/30M

Propane

74-98-6 15-25 NA NA Not known.

Carbon Dioxide

124-38-9 2-10 NA NA Not known.

Iso-Butane

75-28-5 5-15 Inhalation Rats LC50 57 pph/15M

Lubricating Oil

64742-52-5 0-5 NA NA Not known.

Trade Name: Johnsens Starting Fluid 25% MSDS NO. 6762

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Carcinogenicity:

Ingredient/CAS No.

wt. %

IARC

NTP

OSHA

Heptane

142-82-5 40-50 Not Listed Not Listed Not Listed

Ethyl Ether

60-29-7 23-30 Not Listed Not Listed Not Listed

Propane

74-98-6

15-25 Not Listed Not Listed Not Listed

Carbon Dioxide

124-38-9 2-10 Not Listed Not Listed Not Listed

Iso-Butane

75-28-5

5-15 Not Listed Not Listed Not Listed

Lubricating Oil

64742-52-5 0-5 Not Listed Not Listed Not Listed

12. ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

13. DISPOSAL CONSIDERATION

Waste Classification: Residues and spilled material are hazardous waste due to ignitability.

Waste Management: Not determined.

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT:

Proper Shipping Name: Aerosols, flammable, n.o.s. (Engine Starting Fluid)

Hazard Class: 2.1 (limited quantity)

UN/NA Number: UN 1950

DOT Packing Group: Not Determined

IMDG:

Proper Shipping Name: Aerosols (Limited Quantity)

Hazard Class: 2.1

Hazard Subclass: Not determined.
UN No.: UN 1950

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MATERIAL SAFETY DATA SHEET

Effective Date: 5-21-04 Revision Date: none
Mac's Starting Fluid

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Section 1 - Product and Company Identification - Continued

Packing Group: Not Determined

Marine Pollutant: No

15. REGULATORY INFORMATION

US Federal Regulations:

Ingredient/CAS No.

wt. %

SARA 313

SARA 302

RQ

TPQ

Heptane

142-82-5 40-50 Not Listed Not Listed NA NA

Ethyl Ether

60-29-7 23-30 Not Listed Not Listed 100 lbs. NA

Propane

74-98-6 15-25 Not Listed Not Listed NA NA

Carbon Dioxide

124-38-9 2-10 Not Listed Not Listed NA NA

Iso-Butane

75-28-5 5-15 Not Listed Not Listed NA NA

Lubricating Oil

64742-52-5

0-5 Not Listed Not Listed NA NA

Trade Name: Johnsens Starting Fluid 25% MSDS NO. 6762

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Hazardous per OSHA 29 CFR 1910.1200

SARA 311/312 Hazard Catagories: Immediate/Acute, Delayed/Chronic, Fire

State Regulations:

Ingredient/CAS No.

wt. %

California Prop. 65

Cancer list

California Prop. 65

Developmental

Toxicity

California Prop. 65

Reproductive Female

California Prop. 65

Reproductive Male

Heptane

142-82-5 40-50 Not Listed Not Listed Not Listed Not Listed

Ethyl Ether

60-29-7 23-30 Not Listed Not Listed Not Listed Not Listed

Propane

74-98-6 15-25 Not Listed Not Listed Not Listed Not Listed

Carbon Dioxide

124-38-9 2-10 Not Listed Not Listed Not Listed Not Listed

Iso-Butane

75-28-5

5-15 Not Listed Not Listed Not Listed Not Listed

Lubricating Oil

64742-52-5 0-5 Not Listed Not Listed Not Listed Not Listed

U.S. TSCA: The components of this product are listed on the TSCA Inventory.

16. OTHER INFORMATION

General Notes: Do not allow undiluted material or large quantities to reach

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MATERIAL SAFETY DATA SHEET

Effective Date: 5-21-04 Revision Date: none

Mac's Starting Fluid

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Section 1 - Product and Company Identification - Continued

groundwater, bodies of water or sewer system.

Disclaimer:

The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS

FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty

against infringement of any patent, copyright or trademark is made or implied.

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MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens Starting Fluid 25%
MSDS NO. 6762
Revision Date: 02/17/2009
Date Printed: 02/17/2009

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Johnsens Starting Fluid 25%
Chemical Family: ETHER
Synonyms: None
Emergency Telephone (24 hr.): 24-Hour Emergency Information: CHEMTREC (800) 424-9300
Supplier: Technical Chemical Company, P.O. Box 139, Cleburne, Texas 76033

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	OSHA TWA	OSHA STEL	OSHA SKIN
Heptane 142-82-5	40-50	Not Listed	Not Listed	Not Listed
Ethyl Ether 60-29-7	23-30	Not Listed	Not Listed	Not Listed
Propane 74-98-6	15-25	Not Listed	Not Listed	Not Listed
Iso-Butane 75-28-5	5-15	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	2-10	Not Listed	Not Listed	Not Listed
Lubricating Oil 64742-52-5	0-5	Not Listed	Not Listed	Not Listed

Component	Weight %	OSHA Z PEL	OSHA Z TWA	OSHA Z Ceiling
Heptane 142-82-5	40-50	2000 mg/m ³ 500 ppm	1600 mg/m ³ 400 ppm	Not Listed
Ethyl Ether 60-29-7	23-30	1200 mg/m ³ 400 ppm	1200 mg/m ³ 400 ppm	Not Listed
Propane 74-98-6	15-25	1800 mg/m ³ 1000 ppm	1800 mg/m ³ 1000 ppm	Not Listed
Iso-Butane 75-28-5	5-15	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	2-10	9000 mg/m ³ 5000 ppm	18000 mg/m ³ 10000 ppm	Not Listed
Lubricating Oil 64742-52-5	0-5	2000 mg/m ³ 500 ppm	1600 mg/m ³ 400 ppm	Not Listed

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens Starting Fluid 25%
MSDS NO. 6762
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Component	ACGIH TLV TWA	ACGIH TLV STEL	ACGIH TLV Ceiling
Heptane 142-82-5	400 ppm	500 ppm	Not Listed
Ethyl Ether 60-29-7	400 ppm	500 ppm	Not Listed
Propane 74-98-6	1000 ppm	Not Listed	Not Listed
Iso-Butane 75-28-5	1000 ppm	Not Listed	Not Listed
Carbon Dioxide 124-38-9	5000 ppm	30000 ppm	Not Listed
Lubricating Oil 64742-52-5	Not Listed	Not Listed	Not Listed

Other: This product contains trace amounts of (<15 ppm) of Butylated hydroxytoluene (BHT) as an inhibitor to prevent or reduce the formation of potentially explosive peroxides.

3. HAZARDS IDENTIFICATION

Emergency Overview:

Danger: Extremely flammable. Breathing high concentrations of vapor or mist may cause nausea, vomiting, central nervous system (CNS) depression and asphyxiation. Symptoms may include headache, dizziness, blurred vision, slurred speech, memory loss, confusion, fatigue, loss of consciousness, convulsions, paralysis, or coma. This material is irritating to skin, eyes and respiratory tract. Keep away from heat, sparks and flame. Prolonged or repeated inhalation or ingestion may result in kidney and liver changes.

HMIS Classification: NFPA Rating:

Health: *2 Flammability: 4 Physical Hazard: 2
Health: 2 Flammability: 4 Reactivity: 1

4. FIRST AID MEASURES

Eye Contact:

In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing. Do not permit victim to rub eyes.

Ingestion:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person. Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.

Inhalation:

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin Contact:

Wash with soap and water for 15 minutes. If irritation persists or signs of toxicity occur, seek medical attention. Remove contaminated clothing and shoes, and launder before reuse.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point °F(°C):
Flash Point Method:
Flammable Limits in Air - Lower (%):
Flammable Limits in Air - Upper (%):
Autoignition Temperature °F(°C):
Extinguishing Media:

<-10 F
TAG Closed Cup
1.2% (Lowest Component)
6.7% (Lowest Component)
356 F (Lowest Component)
Dry chemical. Carbon dioxide. Alcohol foam. Use water spray to keep containers cool that are exposed to heat or flames.

Protection Of Fire-Fighters:

Special Fire-Fighting Procedures:

Wear approved positive-pressure self-contained breathing apparatus and protective clothing. Vapor may cause flash fire. Fight from a maximum distance or use unmanned hose holders or monitor nozzles. Containers can build up pressure if exposed to heat; cool with flooding quantities of water until well after the fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of vessel.

Hazardous Combustion Products: Aerosol Comments:

Carbon Dioxide. Carbon Monoxide.
NFPA Level 3 Aerosol

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens Starting Fluid 25%
MSDS NO. 6762
Revision Date: 02/17/2009
Date Printed: 02/17/2009

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective clothing and equipment to prevent skin and eye contact.
Spill Procedures: Contain any liquid from leaking containers. Avoid all sources of ignition; heat, sparks and open flames.
Action to be taken if material is released or spilled: Do not puncture or incinerate container. Contents under pressure. Wear proper protective equipment as specified in the protective equipment section. Remove sources of ignition. Leaking containers should be removed to an isolated, well-ventilated area and transferred to other suitable containers. Wipe, scrape, or soak up in an inert material and put in a container intended for flammable materials for disposal.
Environmental Precautions: Do not allow to enter sanitary drains, sewer or surface and subsurface waters. Keep out of lakes, ponds or streams.

7. HANDLING AND STORAGE

Handling and Storage: Caution: Contents under pressure. Keep away from heat and open flame. Use only in a well ventilated area. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Do not puncture, incinerate or store above 120 F. Exposure to high temperatures may cause bursting. DO NOT store in the passenger compartment of an automobile. Store in a cool, dry place, out of direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use in a well ventilated area. Local exhaust ventilation as necessary to maintain exposures to within applicable limits.
Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.
Skin Protection: Avoid skin contact. Wear protective clothing and gloves.
Respiratory Protection: Do not breath mist or vapor. Use in a well ventilated area. Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to pale yellow liquid
Odor: PUNGENT SWEET
pH Value: Not Determined
Vapor Pressure: Not Determined
Vapor Density (Air=1): >1.5 Approximate
Boiling Point (°F): -44 F (Lowest Component)
Melting/Freezing Point: Freezing -176F (Ether)
Solubility in Water: PARTLY SOLUBLE
Bulk Density at 20°C: Not Determined
Molecular Weight: Mixture
Specific Gravity (H2O=1): Not Determined
Viscosity: Not Determined.
Evaporation Rate: Not Determined
VOC Content(%): 93.3 (CARB Method 310)
Decomposition Temperature: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of handling, use and transportation.
Conditions to Avoid: Keep away from heat, sparks and flame. Avoid any source of ignition. Do not expose to heat or store at temperatures above 120 F.
Materials to Avoid: Contact with oxidizing agents. Concentrated oxygen. Nitric acid. Avoid contact with chlorine in the presence of light.
Hazardous Decomposition Products: Carbon monoxide, and other asphxiants. Explosive peroxides. Will react with nitric acid to form explosive nitrates.
Hazardous Polymerization: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens Starting Fluid 25%
MSDS NO. 6762
Revision Date: 02/17/2009
Date Printed: 02/17/2009

Component	Route	Species	Dose
Heptane 142-82-5	Inhalation	Rats	LC50 103 gm/m ³ /4H
Ethyl Ether 60-29-7	Inhalation	Mice	LC50 31000 ppm/30M
Propane 74-98-6	NA	NA	Not known.
Iso-Butane 75-28-5	Inhalation	Rats	LC50 57 pph/15M
Carbon Dioxide 124-38-9	NA	NA	Not known.
Lubricating Oil 64742-52-5	NA	NA	Not known.

Carcinogenicity:

Component	IARC	NTP	OSHA
Heptane 142-82-5	Not Listed	Not Listed	Not Listed
Ethyl Ether 60-29-7	Not Listed	Not Listed	Not Listed
Propane 74-98-6	Not Listed	Not Listed	Not Listed
Iso-Butane 75-28-5	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	Not Listed	Not Listed	Not Listed
Lubricating Oil 64742-52-5	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Remarks: Ecological testing has not been conducted on this product.

13. DISPOSAL CONSIDERATION

Waste Classification: Residues and spilled material are hazardous waste due to ignitability.
Waste Management: Not determined.
Disposal Method: Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT:

Proper Shipping Name: Consumer Commodity
Hazard Class: ORM-D
UN/NA Number: Not Applicable
DOT Packing Group: Not Applicable

IMDG:

Proper Shipping Name: Aerosols (Limited Quantity)
Hazard Class: 2.1
Hazard Subclass: Not Applicable
UN No.: UN 1950
Packing Group: Not Applicable
Marine Pollutant: No

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens Starting Fluid 25%
MSDS NO. 6762
Revision Date: 02/17/2009
Date Printed 02/17/2009

15. REGULATORY INFORMATION

US Federal Regulations:

Component	SARA 313	SARA 302	TPQ	RQ
Heptane 142-82-5	Not Listed	Not Listed	Not Listed	Not Listed
Ethyl Ether 60-29-7	Not Listed	Not Listed	Not Listed	Not Listed
Propane 74-98-6	Not Listed	Not Listed	Not Listed	Not Listed
Iso-Butane 75-28-5	Not Listed	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	Not Listed	Not Listed	Not Listed	Not Listed
Lubricating Oil 64742-52-5	Not Listed	Not Listed	Not Listed	Not Listed

US OSHA HEALTH CLASSIFICATION: Hazardous per OSHA 29 CFR 1910.1200
SARA 311/312 Hazard Categories: Immediate/Acute, Delayed/Chronic, Fire

State Regulations:

Component	California Prop. 65 Cancer list	California - Prop 65 Developmental Toxicity	California Prop. 65 Reproductive Female	California Prop. 65 Reproductive Male
Heptane 142-82-5	Not Listed	Not Listed	Not Listed	Not Listed
Ethyl Ether 60-29-7	Not Listed	Not Listed	Not Listed	Not Listed
Propane 74-98-6	Not Listed	Not Listed	Not Listed	Not Listed
Iso-Butane 75-28-5	Not Listed	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	Not Listed	Not Listed	Not Listed	Not Listed
Lubricating Oil 64742-52-5	Not Listed	Not Listed	Not Listed	Not Listed

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens Starting Fluid 25%
 MSDS NO. 6762
 Revision Date: 02/17/2009
 Date Printed: 02/17/2009

Component	New Jersey Right-to-Know List:
Heptane 142-82-5	Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430 Substance no. 1339
Ethyl Ether 60-29-7	Substance no. 0701 Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430
Propane 74-98-6	Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430 Substance no. 1594
Iso-Butane 75-28-5	Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430 Substance no. 1040
Carbon Dioxide 124-38-9	Substance no. 0343

U.S. TSCA: The components of this product are listed on the TSCA Inventory.
 Canadian Inventory: The components of this product are listed on the Canadian DSL or NDSL Inventory.

Consumer Product Safety Improvement Act of 2008 General Conformity Certification

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product container.

16. OTHER INFORMATION

General Notes:
Disclaimer:

Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system. The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

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Product Name:

Carquest SFP 7.8 91009

Manufacturer:

The Valvoline Company

Part Number(s):

PYF91016 Starting Fluid

MATERIAL SAFETY DATA SHEET

The Valvoline Company

Page 001
Date Prepared: 03/03/98
Date Printed: 10/03/98
MSDS No: 503.0177783-006.005

CARQUEST SFP 7.8 91009

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: CARQUEST SFP 7.8 91009
Product Code: 80069118
General or Generic ID: SOLVENT BLEND

Company

The Valvoline Company
P.O. Box 14000
Lexington, KY 40512

Telephone Numbers

Emergency: 1-800-274-5263
Information: 1-606-357-7847

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
HEPTANE	142-82-5	49.0- 59.0
ETHYL ETHER	60-29-7	26.0- 36.0
CARBON DIOXIDE	124-38-9	3.0- 13.0
HEXANE	110-54-3	6.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Additional symptoms of eye exposure may include: blurred vision

Skin

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can enter the lungs during swallowing or vomiting and cause lung inflammation and/or damage.

Inhalation

Breathing of vapor or mist is possible.

Symptoms of Exposure

stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), and death.

Target Organ Effects

Prolonged and repeated inhalation of high levels of mixed isomers of hexane resulted in kidney damage in male rats. The effects observed are the same as those seen in male rats exposed to other hydrocarbons. The mechanism by which these chemicals cause the characteristic kidney toxicity is unique to the male rat and the kidney effects are not expected to occur in man.

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Developmental Information

No data

Cancer Information

No data

Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin contact.

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing

Do not induce vomiting. This material is an aspiration hazard. If individual is drowsy or unconscious, place on left side with the head down. Seek medical attention. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians

No data

5. FIRE FIGHTING MEASURES

Flash Point

< -58.0 F (-50.0 C) TCC

Explosive Limit

(for component) Lower 1.0 %

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

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Fire and Explosion Hazards

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Extinguishing Media

regular foam, carbon dioxide, dry chemical.

Fire Fighting Instructions

Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 1, Flammability - 4, Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Small Spill

Allow to evaporate. Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Ventilate area.

Large Spill

Allow to evaporate. Persons not wearing protective equipment should be excluded from area until leak has been repaired. Eliminate all ignition sources (flares, flames, including pilot lights, electrical sparks).

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage

Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Not required under normal conditions of use.

Skin Protection

Not required under normal conditions of use., Other protective equipment: not required under normal conditions of use..

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Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (See Exposure Guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (consult your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines

Component

HEPTANE (142-82-5)

OSHA VPEL 400.000 ppm - TWA
OSHA VPEL 500.000 ppm - STEL
ACGIH TLV 400.000 ppm - TWA
ACGIH TLV 500.000 ppm - STEL

ETHYL ETHER (60-29-7)

OSHA VPEL 400.000 ppm - TWA
OSHA VPEL 500.000 ppm - STEL
ACGIH TLV 400.000 ppm - TWA
ACGIH TLV 500.000 ppm - STEL

CARBON DIOXIDE (124-38-9)

OSHA VPEL 10000.000 ppm - TWA
OSHA VPEL 30000.000 ppm - STEL
ACGIH TLV 5000.000 ppm - TWA
ACGIH TLV 30000.000 ppm - STEL

HEXANE (110-54-3)

OSHA VPEL 50.000 ppm - TWA
ACGIH TLV 50.000 ppm - TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for component) 94.0 F (34.4 C) @ 760.00 mmHg

Vapor Pressure

(for component) 439.000 mmHg @ 68.00 F

Specific Vapor Density

> 1.000 @ AIR=1

Specific Gravity

.758 @ 77.00 F

Liquid Density

5.800 lbs/gal @ 77.00 F
.758 kg/l @ 25.00 C

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Percent Volatiles (Including Water)

100.0 %

Evaporation Rate

SLOWER THAN ETHYL ETHER

Appearance

No data

State

LIQUID

Physical Form

No data

Color

No data

Odor

No data

pH

Not applicable

Flame Propagation

> 18.000 IN

10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Chemical Stability

Stable.

Incompatibility

Avoid contact with: strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

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13. DISPOSAL CONSIDERATION

Waste Management Information

Ventilate area of spill. Allow material to evaporate.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:

ENGINE STARTING FLUID, 2.1, UN 1960

Container/Mode:

CASES/SURFACE - NO EXEMPTIONS

NOS Component:

None

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs) Component

321 DIETHYL ETHER

15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4

Component	Component
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ETHYL ETHER	100
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HEXANE	1
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SARA 302 Components - 40 CFR 355 Appendix A

None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed(X) Fire(X) Reactive() Sudden Release of Pressure()

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number	Max %
N-HEXANE	110-54-3	5.50

International Regulations

Inventory Status

Not determined

State and Local Regulations

California Proposition 65

None

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New Jersey RTK Label Information

N-HEPTANE	142-82-5
DIETHYL ETHER	60-29-7
CARBON DIOXIDE	124-38-9
N-HEXANE	110-54-3

Pennsylvania RTK Label Information

HEPTANE (N-)	142-82-5
ETHANE, 1,1'-OXYBIS-	60-29-7
CARBON DIOXIDE	124-38-9
HEXANE	110-54-3

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.