

Part: 7216 Line: MAC Desc: START FL

=====

Effective Date: 5-21-04

MATERIAL SAFETY DATA SHEET

Revision Date: none

Mac's Starting Fluid

=====

Section 1 - Product and Company Identification

PRODUCT NAME: Mac's Starting Fluid

MANUFACTURER'S NAME:

Technical Chemical Corp.

P O BOX 139

CLEBURNE , TX 76033

EMERGENCY TELEPHONE NUMBER

(817)645-6088

MISCELLANEOUS INFORMATION

=====

Effective Date: 5-21-04

MATERIAL SAFETY DATA SHEET

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

Part: 7216 Line: MAC Desc: START FL

Not Known 5000 ppm 30,000 ppm

Iso-Butane

75-28-5

5-15 None Established None Established None Established None Established
Lubricating Oil64742-52-5 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

MATERIAL SAFETY DATA SHEET

Effective Date: 5-21-04

Revision Date: none

Mac's Starting Fluid

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

Page 2 of 1

exposed to heat or flames.

Protection Of Fire-Fighters:

Special Fire-Fighting Procedures: Wear approved positive-pressure

Part: 7216 Line: MAC Desc: START FL

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 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 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

Part: 7216 Line: MAC Desc: START FL

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:

Ingredient/CAS No.

wt. %

Route

Species

MATERIAL SAFETY DATA SHEET

Effective Date: 5-21-04

Revision Date: none

Mac's Starting Fluid

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

Page 3 of 1

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

Part: 7216 Line: MAC Desc: START FL

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

=====

MATERIAL SAFETY DATA SHEET

Effective Date: 5-21-04

Revision Date: none

Mac's Starting Fluid

=====

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

Page 4 of 1

Hazardous per OSHA 29 CFR 1910.1200

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

State Regulations:

Ingredient/CAS No.

wt. %

California Prop. 65

Cancer list

California Prop. 65

Developmental

Part: 7216 Line: MAC Desc: START FL

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

=====

MATERIAL SAFETY DATA SHEET

Effective Date: 5-21-04

Revision Date: none

Mac's Starting Fluid

=====

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.

*** End of Report ***