

PRODUCT NAME: ABRO Starting Fluid
PRODUCT NUMBER/SIZE: SF-650

Rev Date: 2/5/2015

SECTION 1 Identification of the Substance and of the Company/Undertaking

MANUFACTURER'S NAME: ABRO INDUSTRIES, INC.
ADDRESS: 3580 Blackthorn Court
South Bend, IN 46628
USA
PRODUCT DESCRIPTION: Engine Fluid
COMPANY PHONE: 574-232-8289
EMERGENCY 24-HR TELEPHONE: Chemtrec: US/Canada 1-800-424-9300
International +1-703-527-3887

SECTION 2 Hazards Identification

Classification:

Extremely Flammable Aerosol (Category 1) H222, H229 (changed)
Skin corrosion/irritation (Category 2) H315.
Eye damage/Irritation (Category 2A) - H319. (Added)
Specific target organ toxicity (SE) (Category 3) H335, H336
Aspiration Hazard (Category 1) H304.
Acute Toxicity (O) Category 4) H312
Gases under pressure – Dissolved Gas (delete)

Label Pictogram(s):



Signal Word: **DANGER**

Hazard Phrases: Extremely flammable aerosol. Pressurized container: May burst if heated. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways. Harmful in contact with skin. Harmful if inhaled.

Precautionary Phrases: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from open flames - No smoking. Keep container tightly closed. Ground container and receiving equipment. Use explosion proof and non-sparking equipment. Take action to prevent static discharge. Do not breathe fumes. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye

protection.

Response: If swallowed, inhaled, exposed, on skin, in eyes or if you feel unwell, immediately call a doctor and get medical attention. For specific treatment, refer to section 4 of the SDS. If swallowed - Do not induce vomiting. 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 attention. If inhaled, remove person to fresh air and keep comfortable for breathing. If on skin, wash with plenty of water. Take off immediately all contaminated clothing and wash it before reuse. In case of fire, extinguish using dry powder, alcohol-resistant foam, water spray, water in large amounts, or carbon dioxide.

Storage / Disposal: Store locked up in a well-ventilated place and keep cool. Keep container tightly closed. Dispose of contents/ container to an approved waste disposal plant.

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

SECTION 3 Composition/Information on Ingredients

Ingredient	CAS No	Wt. %
Heptane	142-82-5	40 - 70
Ethyl ether	60-29-7	15 - 40
Carbon dioxide	124-38-9	5 - 10

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4 First Aid Measures

4.1 DESCRIPTION OF THE FIRST AID MEASURE

Eye:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention.

Skin:

In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical advice/attention.

Ingestion:

If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Eye:

May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin:

Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Inhalation:

May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Ingestion:

Harmful if swallowed. May cause stomach distress, nausea or vomiting. This product may be aspirated into the lungs and cause chemical pneumonitis.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

Note to Physicians:

Symptoms may not appear immediately. If medical advice is needed, have product container or label at hand.

Specific Treatments:

In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5
Fire Fighting Measures

5.1 EXTINGUISHING MEDIA

Suitable Extinguishing Media:

Powder, foam, carbon dioxide.

Unsuitable Extinguishing Media:

Not available.

5.2 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

Products of Combustion:

May include, and are not limited to: oxides of carbon.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Firefighters should wear full protective clothing including self-contained breathing apparatus. Contents under pressure. Containers may explode when heated. Use water spray to keep fire-exposed containers cool. Vapors are heavier than air and may spread near ground to sources of ignition.

SECTION 6
Accidental Release Measures

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition. Ruptured cylinders may rocket.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

Methods for Containment:

For small spills, mop up or soak immediately. For large spills isolate area, and contain spill by using earth or plastic materials to dam spill and prevent runoff into bodies or water. Contain spill, then place in a suitable container. Use appropriate Personal Protective Equipment (PPE).

Methods for Cleaning-Up:

Scoop up material and place in a disposal container. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Provide ventilation.

SECTION 7 Handling and Storage

7.1 PRECAUTIONS FOR SAFE HANDLING

Handling:

Keep away from sources of ignition. - No smoking. Pressurized container: Do not pierce or burn, even after use. Container may explode if heated. Avoid over-pressurizing or overfilling cylinders. Avoid breathing dust/fume/gas/ mist/vapours/spray. Avoid contact with skin and eyes. Do not swallow. When using do not eat, drink or smoke. (See section 8)

General Hygiene Advice:

Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage:

Keep out of the reach of children. Protect from sunlight. Store in a cool, well ventilated area. Do not store at temperatures above 49 °C / 120 °F. (See section 10)

SECTION 8 Exposure Controls/Personal Protection

8.1 CONTROL PARAMETERS

Exposure Guidelines

Ingredient	OSHA-PEL	ACGIH-TLV
Heptane	400 ppm	400 ppm
Ethyl ether	400 ppm TWA 1200 mg/m3 TWA	400 ppm
Carbon dioxide	5000 ppm	5000 ppm

8.2 EXPOSURE CONTROLS

Engineering Controls:

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits. Use only non-sparking tools. Use explosion-proof ventilation equipment.

8.3 INDIVIDUAL PROTECTIVE MEASURES

Personal Protective Equipment:

Eye/Face Protection:

Safety glasses or goggles are recommended when using product.

Skin Protection:

Hand Protection:

Wear solvent resistant gloves.

Body Protection:

Wear suitable protective clothing.

Respiratory Protection:

A NIOSH approved organic vapor respirator is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

General Health and Safety Measures:

Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

SECTION 9
Physical and Chemical Properties

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES	Aerosol.
Appearance:	
Color:	Colorless.
Odor:	Odorless.
Odor Threshold:	Not available.
Physical State:	Gas/Pressurized Liquid.
pH:	Not available.
Melting Point/Freezing Point:	Not available.
Initial Boiling Point and Boiling Range:	95 – 200 °C (203 – 392 °F)
Flash Point:	Not available.
Evaporation Rate:	> 1 (BA = 1)
Flammability:	Flammable.
Lower Flammability/Explosive Limit:	Not available.
Upper Flammability/Explosive Limit:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	> 1 (Air = 1)
Relative Density/Specific Gravity:	0.7
Solubility:	Slight.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	2 cSt
Oxidizing Properties:	Not available.
Explosive Properties:	Not available.

SECTION 10
Stability and Reactivity**10.1 REACTIVITY**

No dangerous reaction known under conditions of normal use.

10.2 CHEMICAL STABILITY

Stable under normal storage conditions. Contents under pressure. Container may explode if heated. Do not pierce or burn, even after use.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID

Heat. Sources of ignition. Incompatible materials.

10.5 INCOMPATIBLE MATERIALS

Nitric plus acetic acids, nitric plus sulfuric acid, amines, strong oxidizing agents.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon.

SECTION 11 Toxicological Information

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure:

Skin contact, eye contact, inhalation, and ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

Eye:

May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin:

Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Ingestion:

Harmful if swallowed. May cause stomach distress, nausea or vomiting. This product may be aspirated into the lungs and cause chemical pneumonitis.

Inhalation:

May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Acute Toxicity:

Ingredient	LC50	LD50
Heptane	Inhalation 103 g/m ³ 4hr, rat	Dermal 3000 mg/kg, rabbit
Ethyl ether	Not available.	Oral 1215 mg/kg, rat Dermal >20 mL/kg, rabbit
Carbon dioxide	Not available.	Not available.

Calculated overall Chemical Acute Toxicity Values:

LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
66 mg/L 4 h, rat	1257 mg/kg, rat	3908 mg/kg, rabbit

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*
Heptane	Not listed.
Ethyl ether	Not listed.
Carbon dioxide	Not listed.

11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

Skin Corrosion/Irritation:

Causes skin irritation.

Serious Eye Damage/Irritation:

Based on available data, the classification criteria are not met.

Respiratory Sensitization:

Based on available data, the classification criteria are not met.

Skin Sensitization:

Based on available data, the classification criteria are not met.

STOT-Single Exposure:

May cause respiratory irritation. May cause drowsiness or dizziness.

Chronic Health Effects:

Carcinogenicity:

Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity:

Based on available data, the classification criteria are not met.

Reproductive Toxicity:

Developmental:

Based on available data, the classification criteria are not met.

Fertility:

Based on available data, the classification criteria are not met.

STOT-Repeated Exposure:

Based on available data, the classification criteria are not met.

Aspiration Hazard:

May be fatal if swallowed and enters airways.

Toxicologically Synergistic Materials:

Not available.

Other Information:

Not available.

SECTION 12 Ecological Information

12.1 ECOTOXICITY

Acute/Chronic Toxicity:

May cause long-term adverse effects in the aquatic environment.

12.2 PERSISTENCE AND DEGRADABILITY

Not available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation:

Not available.

12.4 MOBILITY IN SOIL

Not available.

12.5 OTHER ADVERSE EFFECTS

Not available.

SECTION 13 Disposal Considerations

13.1 WASTE TREATMENT METHODS

Disposal Method:

This material must be disposed of in accordance with all local, state, provincial, and federal regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.

Other disposal recommendations:

Not available.

SECTION 14 Transport Information

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

U.S. DOT Proper shipping name: UN1950, Aerosols, 2.1, Limited Quantity / Consumer Commodity
 UN/ID Number: ID8000
 Hazard class: Consumer Commodity - ORM-D
 ERG#126

IMO/MDG Proper shipping name: Aerosol, Limited Quantity
 UN Number: UN1950
 Hazard Class: 2.1
 EmS F-D, S-U

ICAO/IATA Proper shipping name: Aerosol, Flammable, Limited Quantity
 UN Number: UN1950
 Hazard class: 2.1

Canada (TDG) Proper shipping name: UN1950, Aerosols, 2.1, Limited Quantity
 May be classed as Limited Quantity or ORM-D
 UN/ID Number: UN1950
 Hazard class: 2.1
 ERG#126

SECTION 15 Regulatory Information

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

SARA Title III

Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Heptane	Not listed.	Not listed.	Not listed.	Not listed.
Ethyl ether	Not listed.	Not listed.	100	Not listed.
Carbon dioxide	Not listed.	Not listed.	Not listed.	Not listed.

State Regulations

California Proposition 65:

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Global Inventories:

Ingredient	USA TSCA
Heptane	Yes.
Ethyl ether	Yes.
Carbon dioxide	Yes.

NFPA National Fire Protection Association:

Health:	2
Fire:	4
Reactivity:	0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

OSHA (O)

Occupational Safety and Health Administration.

ACGIH (G)

American Conference of Governmental Industrial Hygienists.

A1 - Confirmed human carcinogen.

A2 - Suspected human carcinogen.

A3 - Animal carcinogen.

A4 - Not classifiable as a human carcinogen.

A5 - Not suspected as a human carcinogen.

IARC (I)

International Agency for Research on Cancer.

1 - The agent (mixture) is carcinogenic to humans.

2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.

2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.

3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.

4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N)

National Toxicology Program.

1 - Known to be carcinogens.

2 - Reasonably anticipated to be carcinogens.

SECTION 16
Other Information

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

ABBREVIATIONS:

NG="NOT GIVEN"

BT="BETWEEN"

<="LESS THAN"

>="GREATER THAN"

ND = Not Determined

NA = Not Applicable