

**ABRO Starting Fluid**

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier**

Product Name	ABRO Starting Fluid
Product code	SF-650
CAS No.	Not applicable.
EC No.	Not applicable.
REACH Registration No.	Not known.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	Engine starting fluid.
Uses Advised Against	Not known.

1.3 Details of the supplier of the safety data sheet

Manufacturer	
Company Identification	ABRO Industries Inc
Address of Manufacturer	3580 Blackthorn Court South Bend USA
Postal code	46628
Telephone:	+1 574-232-8289
Fax	Not known.
E-mail	abro@abro.com
Office hours	
Supplier	
Company Identification	Granville Oil & Chemicals Ltd
Address of Supplier	29 Goldthorpe Ind. Est., Goldthorpe, Rotherham, South Yorkshire,
Postal code	S63 9BL
Telephone:	+44 (0)1709 890099
Fax	Not known.
E-mail	lab@granvilleoil.com
Office hours	08:00 - 17:00

1.4 Emergency telephone number

Contact	NHS Direct
Emergency Phone No.	+44 111

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

Regulation (EC) No. 1272/2008 (CLP)	Aerosol 1 :Extremely flammable aerosol. Pressurised container: May burst if heated. Asp. Tox. 1 :May be fatal if swallowed and enters airways. Acute Tox. 4 :Harmful in contact with skin.
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Skin Irrit. 2 :Causes skin irritation.

Eye Irrit. 2 :Causes serious eye irritation.

Acute Tox. 4 :Harmful if inhaled.

STOT SE 3 :May cause respiratory irritation. May cause drowsiness or dizziness.

Aquatic Acute 1 :Very toxic to aquatic life.

Aquatic Chronic 1 :Very toxic to aquatic life with long lasting effects.

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Product Name

ABRO Starting Fluid

Hazard Pictogram(s)



GHS02



GHS08



GHS07



GHS09

Signal Word(s)

Danger

Hazard Statement(s)

H222: Extremely flammable aerosol.

H229: Pressurised container: May burst if heated.

H304: May be fatal if swallowed and enters airways.

H312: Harmful in contact with skin.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

H336: May cause drowsiness or dizziness.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

P102: Keep out of reach of children.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211: Do not spray on an open flame or other ignition source.

P251: Do not pierce or burn, even after use.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash hands and exposed skin thoroughly after handling.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE/doctor.

P302+P352: IF ON SKIN: Wash with plenty of water.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

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Remove contact lenses, if present and easy to do. Continue rinsing.
P312: Call a POISON CENTRE/doctor if you feel unwell.
P321: Specific treatment (see Medical Advice on this label).
P331: Do NOT induce vomiting.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P391: Collect spillage.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

None known.

2.4 Additional Information

For full text of H/P Statements see section 16.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances**

Not applicable.

3.2 Mixtures

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
heptane n-heptane	142-82-5	205-563-8	40-70	Flam. Liq. 2 H225 Asp. Tox. 1 H304 Skin Irrit. 2 H315 STOT SE 3 H336 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	GHS02 GHS08 GHS07 GHS09
diethyl ether ether	60-29-7	200-467-2	15-40	Flam. Liq. 1 H224 Acute Tox. 4 H302 Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H336	GHS02 GHS07
Carbon dioxide	124-38-9	204-696-9	5-10	Press. Gas (Diss.) H280	GHS04

HAZARDOUS INGREDIENT(S)	CAS No.	Specific Concentration Limit	M-factor	ATE
diethyl ether ether	60-29-7			Acute Tox. 4 (H302) : 500.000

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Contains no non-classified vPvB substances.

Contains no non-classified substances with a Union workplace exposure limit.

For full text of H/P Statements see section 16.

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures**

Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical advice/attention.
Skin Contact	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.
Eye Contact	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.
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 treatment 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: FIREFIGHTING MEASURES**5.1 Extinguishing media**

Suitable Extinguishing media	Powder, foam, carbon dioxide.
Unsuitable extinguishing media	Not available.

5.2 Special hazards arising from the substance or mixture

May decompose in a fire, giving off toxic and irritant vapours.

5.3 Advice for firefighters

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. Vapours are heavier than air and may spread near ground to sources of ignition.



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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 Environmental precautions

Avoid release to the environment. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

6.3 Methods and material 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.

6.4 Reference to other sections

See Also Section 8, 13.

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:

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

7.2 Conditions for safe storage, including any incompatibilities

Keep out of the reach of children. Protect from sunlight. Store in a cool, well ventilated area.

Storage temperature

Do not store at temperatures above 49 ° C / 120 ° F.

Storage life

Stable under normal conditions.

Incompatible materials

None known.

7.3 Specific end use(s)

Engine starting fluid.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note

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n-Heptane	142-82-5	500	2085			
Diethyl ether	60-29-7	100	310	200	620	
Carbon dioxide	124-38-9	5000	9150	15000	27400	

Region Source
United Kingdom UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)

Remark Notes

8.2 Exposure controls

8.2.1. Appropriate 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.

8.2.2. Personal protection equipment



Eye Protection Wear eye protection with side protection (EN166).



Skin protection Wear protective clothing and gloves: Impervious gloves (EN 374).



Respiratory protection A suitable mask with filter type A (EN14387 or EN405) may be appropriate.



Thermal hazards None known.

8.2.3. Environmental Exposure Controls Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical state	Aerosol
Colour	Colourless.
Odour	Odorless.
Melting point/freezing point	Not known.
Boiling point or initial boiling point and boiling range	95 – 200 ° C (203 – 392 ° F).
Flammability	Not known.
Lower and upper explosion limit	Not known.
Flash Point	Not applicable.
Auto-ignition temperature	Not known.
Decomposition Temperature	Not known.
pH	Not known.

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Kinematic Viscosity	Not known.
Solubility	Solubility (Water) : Not known. Solubility (Other) : Not known.
Partition coefficient n-octanol/water (log value)	Not known.
Vapour pressure	Not known.
Density and/or relative density	0.7.
Relative vapour density	> 1 (Air = 1).
Particle characteristics	Not known.

9.2 Other information

None.

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity**

None anticipated.

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 hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

Keep away from heat and direct sunlight.

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 hazard classes as defined in Regulation (EC) No 1272/2008**

Acute toxicity - Ingestion	Calculation method : Not classified. Calculation method : Calculated acute toxicity estimate (ATE) Calc ATE - 2500.00000
Acute toxicity - Skin Contact	Self classification: Harmful in contact with skin.
Acute toxicity - Inhalation	Self classification: Harmful if inhaled.
Skin corrosion/irritation	Calculation method : Causes skin irritation.
Serious eye damage/irritation	Calculation method : Causes serious eye irritation.
Skin sensitization data	Calculation method : Not classified.
Respiratory sensitization data	Calculation method : Not classified.
Germ cell mutagenicity	Calculation method : Not classified.
Carcinogenicity	Calculation method : Not classified.
Reproductive toxicity	Calculation method : Not classified.
Lactation	Calculation method : Not classified.
STOT - single exposure	Self classification: May cause respiratory irritation. May cause drowsiness or dizziness.

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STOT - repeated exposure

Aspiration hazard

Calculation method : Not classified.

Calculation method : May be fatal if swallowed and enters airways.

11.2 Information on other hazards

Not known.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Very toxic to aquatic life with long lasting effects.

Toxicity - Aquatic invertebrates

Not known.

Toxicity - Fish

Not known.

Toxicity - Algae

Not known.

Toxicity - Sediment Compartment

Not classified.

Toxicity - Terrestrial Compartment

Not classified.

12.2 Persistence and degradability

Not known.

12.3 Bioaccumulative potential

Not known.

12.4 Mobility in soil

Not known.

12.5 Results of PBT and vPvB assessment

Not known.

12.6 Endocrine disrupting properties

None known.

12.7 Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Dispose of contents in accordance with local, state or national legislation. Send to a licensed recycler, reclaimer or incinerator. Dispose of this material and its container to hazardous or special waste collection point. Recycle only completely emptied packaging. Containers must not be punctured or destroyed by burning, even when empty. Do not allow to enter drains, sewers or watercourses. Do NOT landfill.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION**14.1 UN number or ID number**

UN No.

1950

14.2 UN proper shipping name

UN proper shipping name

AEROSOLS

**ABRO Starting Fluid****14.3 Transport hazard class(es)**

ADR/RID

ADR/RID Class	2
ADR Classification Code	5F
Special Provisions	190 327 344 625
Limited Quantities	1 L
Excepted Quantities	E0

Emergency Action Code

Mixed Packing Instructions for Packages	P207 LP200
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Special Packing Provisions for Packages	PP87 RR6 L2
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Mixed Packing Instructions for Packages	MP9
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Packing Instructions for Portable Tanks

Special Provisions for Portable Tanks

Tank Code for Tanks

Special Provisions for Tanks

Vehicle for Tank Carriage

ADR Transport Category	2
Tunnel Restriction Code	D
Special Provisions for Carriage - Packages	V14

Special Provisions for Carriage - Bulk

Special Provisions for Carriage - Loading, Unloading and Handling	CV9 CV12
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Special Provisions for Carriage - Operation	S2
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ADR HIN

IMDG

IMDG Class	2
Special Provisions	190 327 344 625
Limited Quantities	1 L
Excepted Quantities	E0

Mixed Packing Instructions for Packages	P207 LP200
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Special Packing Provisions for Packages	PP87 RR6 L2
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Packing Instructions for Portable Tanks

Special Provisions for Portable Tanks

IMDG EMS	F-D, S-U
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Stowage and Handling	SW1 SW22
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Segregation	SG69
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Marine Pollutant

ICAO/IATA

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IATA Proper Shipping Name	AEROSOLS
Excepted Quantities	E0
Passenger and Cargo Aircraft Limited Quantities Packing Instructions	Forbidden for transport by air.
Passenger and Cargo Aircraft Limited Quantities Max net Qty	Forbidden for transport by air.
Passenger and Cargo Aircraft Packing Instructions	Forbidden on passenger aircraft.
Passenger and Cargo Aircraft Max net Qty	Forbidden on passenger aircraft.
Cargo Aircraft Packing Instructions	203
Cargo Aircraft Max net Qty	150Kg
Special Provisions	A1, A145, A167, A802
Emergency Response Guidebook (ERG) Code	10L
Labels	
Labels	2.1

**14.4 Packing group**

Packing group

14.5 Environmental hazards

Environmental hazards Classified as a Marine Pollutant.

14.6 Special precautions for user

Special precautions for user Not known.

14.7 Maritime transport in bulk according to IMO instruments

No information available

SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation Not listed

REACH: ANNEX XIV list of substances subject to authorisation Not listed

REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles heptane n-heptane (142-82-5), diethyl ether ether (60-29-7)

Community Rolling Action Plan (CoRAP) diethyl ether (60-29-7)

Regulation (EU) N° 2019/1021 of the European Parliament and of the Council on persistent organic pollutants Not listed

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Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer Not listed
Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals Not listed

National regulations

Other Not known.

15.2 Chemical Safety Assessment

A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Hazard Pictogram(s)



GHS02



GHS08



GHS07



GHS09

GHS04: GHS: Gas cylinder

Hazard classification

Aerosol 1 : Aerosol, Category 1
Flam. Liq. 1 : Flammable liquid, Category 1
Flam. Liq. 2 : Flammable liquid, Category 2
Press. Gas (Diss.) : Gases under pressure, Compressed dissolved gas
Acute Tox. 4 : Acute toxicity, Category 4
Asp. Tox. 1 : Aspiration hazard, Category 1
Acute Tox. 4 : Acute toxicity, Category 4
Skin Irrit. 2 : Skin corrosion/irritation, Category 2
Eye Irrit. 2 : Serious eye damage/irritation, Category 2
Acute Tox. 4 : Acute toxicity, Category 4
STOT SE 3 : Specific target organ toxicity — single exposure, Category 3
STOT SE 3 : Specific target organ toxicity — single exposure, Category 3
Aquatic Acute 1 : Hazardous to the aquatic environment, Acute, Category 1
Aquatic Chronic 1 : Hazardous to the aquatic environment, Chronic, Category 1

Hazard Statement(s)

H222: Extremely flammable aerosol.
H224: Extremely flammable liquid and vapour.
H225: Highly flammable liquid and vapour.

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H229: Pressurised container: May burst if heated.
H280: Contains gas under pressure; may explode if heated.
H302: Harmful if swallowed.
H304: May be fatal if swallowed and enters airways.
H312: Harmful in contact with skin.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211: Do not spray on an open flame or other ignition source.
P251: Do not pierce or burn, even after use.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash hands and exposed skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P302+P352: IF ON SKIN: Wash with plenty of water.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312: Call a POISON CENTRE/doctor if you feel unwell.
P321: Specific treatment (see Medical Advice on this label).
P331: Do NOT induce vomiting.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P391: Collect spillage.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50° C/ 122° F.
P501: Dispose of contents in accordance with local, state or national legislation.

**ABRO Starting Fluid**

Acronyms

ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE : Acute Toxicity Estimate
CAS : Chemical Abstracts Service
CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL : Derived No Effect Level
EC : European Community
EINECS : European Inventory of Existing Commercial Chemical Substances
IATA : International Air Transport Association
IBC : Intermediate Bulk Container
ICAO : International Civil Aviation Organization
IMDG : International Maritime Dangerous Goods
LTEL : Long term exposure limit
PBT : Persistent, Bioaccumulative and Toxic
PNEC : Predicted No Effect Concentration
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
RID : Regulations concerning the International Carriage of Dangerous Goods by Rail
STEL : Short term exposure limit
STOT : Specific Target Organ Toxicity
UN : United Nations
vPvB : very Persistent and very Bioaccumulative

Key literature references and sources
for data used to compile the SDS

Regulation (EC) No. 1272/2008 (CLP)

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