



# A NEW FORCE IN CHEMICAL MANUFACTURING

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## SAFETY DATA SHEET

ISSUED SEPTEMBER 2014 (VALID 5 YEARS FROM DATE OF ISSUE)

### ESF EASY START – ENGINE STARTING FLUID AEROSOL

#### SECTION 1 - IDENTIFICATION OF THE MATERIAL

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**PRODUCT NAME** Engine Starting Fluid Aerosol  
**PRODUCT TYPE** Engine Starting Fluid  
**PART NUMBER** CT-ESF-300  
**AVAILABLE SIZES** 300g

#### SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS	CAS #	%	HSIS TWA	HSIS STEL
Naphtha hydrotreated, light	64742-89-8	<20		
Dimethyl ether	115-10-6	>80	400ppm (760mg/m <sup>3</sup> )	-500ppm (950mg/m <sup>3</sup> )
Non-hazardous ingredients		3		

#### SECTION 3 - HAZARDS IDENTIFICATION

**Statement of Hazardous Nature:** Hazardous Substance according to the criteria of SafeWork Australia.  
Classified as Dangerous Goods according to the ADG Code

**Poisons Schedule:** None

**Risk Phrases:** R36 Irritating to the eyes.  
R65 Harmful, may cause lung damage

**Safety Phrases:** S2 Keep out of reach of children.  
S23 Do not breathe vapour/spray  
S51 Use only in well ventilated area  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

#### SECTION 4 - FIRST AID MEASURES

**Ingestion:** If swallowed do not induce vomiting.

<b>Eye:</b>	If aerosols come into contact with the eyes immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water.
<b>Skin:</b>	If skin contact occurs immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available) In case of cold burns (frost bite): Bathe the affected area immediately in cold water for 10-15 minutes
<b>Inhalation:</b>	If inhaled, remove to fresh air If breathing is shallow or has stopped, ensure clear airway and apply resuscitation. Transport to hospital or doctor

**SECTION 5 - FIRE FIGHTING MEASURES****Extinguishing Media:**

SMALL FIRE                      Water spray, dry chemical or CO<sub>2</sub>  
Foam.  
Dry Chemical Powder  
BCF (where regulations permit)

LARGE FIRE  
  
Water spray or fog

**Fire Fighting:**

Alert Fire Brigade and tell them location and nature of hazard.  
May be violently or explosively reactive.  
Wear breathing apparatus plus protective gloves.  
Prevent, spillage from entering drains or water course.  
If safe, switch off electrical equipment until vapour fire hazard removed.  
Use water delivered as a fine spray to control fire and cool adjacent area.  
DO NOT approach containers suspected to be hot.  
Cool fire exposed containers with water spray from a protected location.  
If safe to do so, remove containers from path of fire.  
Equipment should be thoroughly decontaminated after use.

**Fire/Explosion Hazard:**

Combustible.  
Heating may cause expansion or decomposition leading to violent rupture of containers.  
Aerosol cans may explode on exposure to naked flames.  
Rupturing containers may rocket and scatter burning materials.  
Hazards may not be restricted to pressure effects.  
May emit acrid, poisonous or corrosive fumes.  
Decomposes on heating and may emit toxic fumes of carbon monoxide (CO). If involved in fire emits toxic fumes.

**HAZCHEM:**                      2YE

**SECTION 6 - ACCIDENTAL RELEASE MEASURES****Emergency Procedures:**

MINOR SPILLS	<p>Clean up spills immediately</p> <p>Avoid breathing vapours and contact with skin and eyes</p> <p>Wear protective clothing, impervious gloves and safety glasses.</p> <p>Shut off all sources of ignition and increase ventilation.</p> <p>Wipe up spill.</p> <p>If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.</p>
MAJOR SPILLS	<p>Clear area of personnel and move upwind.</p> <p>Alert Fire Brigade and tell them location and nature of hazard.</p> <p>May be violently or explosively reactive.</p> <p>Wear breathing apparatus plus protective gloves.</p> <p>Prevent, by any means available, spillage from entering drains or water courses</p> <p>No smoking, naked lights or ignition sources.</p> <p>Increase ventilation.</p> <p>Stop leak if safe to do so.</p> <p>Water spray or fog may be used to disperse / absorb vapour.</p> <p>Absorb or cover spill with sand, earth, inert materials or vermiculite.</p> <p>If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.</p> <p>Undamaged cans should be gathered and stowed safely.</p> <p>Collect residues and seal in labelled drums for disposal.</p>

## SECTION 7 - HANDLING AND STORAGE

<b>Safe Handling:</b>	<p>Avoid all personal contact, including inhalation.</p> <p>Wear protective clothing when risk of exposure occurs.</p> <p>Use in a well-ventilated area.</p> <p>Prevent concentration in hollows and sumps.</p> <p>DO NOT enter confined spaces until atmosphere has been checked.</p> <p>Avoid smoking, naked lights or ignition sources.</p> <p>Avoid contact with incompatible materials.</p> <p>When handling, DO NOT eat, drink or smoke.</p> <p>DO NOT incinerate or puncture aerosol cans.</p> <p>DO NOT spray directly on humans, exposed food or food utensils.</p> <p>Avoid physical damage to containers.</p> <p>Always wash hands with soap and water after handling.</p> <p>Work clothes should be laundered separately.</p> <p>Use good occupational work practice.</p> <p>Observe manufacturer's storing and handling recommendations.</p> <p>Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</p>
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### Storage Requirements:

Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can.

Store in original containers in approved flammable liquid storage area.  
 DO NOT store in pits, depressions, basements or areas where vapours may be trapped.  
 No smoking, naked lights, heat or ignition sources.  
 Keep containers securely sealed. Contents under pressure.  
 Store away from incompatible materials.  
 Store in a cool, dry, well ventilated area.  
 Avoid storage at temperatures higher than 40°C.  
 Store in an upright position.  
 Protect containers against physical damage.  
 Check regularly for spills and leaks.  
 Observe manufacturer's storing and handling recommendations.

**SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Standards**

Source	Material	TWAppm	TWA mg/m <sup>3</sup>	STELppm	STEL mg/m <sup>3</sup>
HSIS	Petroleum solvent	100ppm	-	-	
HSIS	DME	400ppm(760mg/m <sup>3</sup> )	-500ppm (950mg/m <sup>3</sup> )		

**Personal Protection:**

**EYE**  
 No special equipment for minor exposure i.e. when handling small quantities.  
 OTHERWISE: For potentially moderate or heavy exposures:  
 Safety glasses with side shields.  
 NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.

**HANDS/FEET**  
 No special equipment needed when handling small quantities.  
 OTHERWISE: For potentially moderate exposures:  
 Wear general protective gloves, eg. light weight rubber gloves.  
 For potentially heavy exposures: Wear chemical protective gloves, eg. PVC. and safety footwear.

**OTHER**  
 No special equipment needed when handling small quantities.  
 OTHERWISE: - Overalls.  
 - Skin cleansing cream.  
 - Eyewash unit.  
 - Do not spray on hot surfaces.  
 The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult your Occupational Health and Safety Advisor.

**ENGINEERING CONTROLS**  
 General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.  
 Provide adequate ventilation in warehouse or closed storage areas.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Supplied as an aerosol pack. Contents under PRESSURE..

**Physical Properties:**

**Appearance:** Aerosol  
**Specific Gravity (water=1):** 0.7 approx

<b>Solubility in water (g/L):</b>	Immiscible
<b>Vapour Pressure (kPa):</b>	Not Available
<b>Evaporation Rate:</b>	Fast
<b>Relative Vapour Density (air=1):</b>	3.5
<b>Flash Point (°C):</b>	-81 propellant
<b>Lower Explosive Limit (%):</b>	Not Available
<b>Upper Explosive Limit (%):</b>	Not Available
<b>Autoignition Temp (°C):</b>	Not Available

## SECTION 10 - STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Product is considered stable.
<b>Conditions to Avoid:</b>	Elevated temperatures. Presence of open flame.
<b>Incompatible Materials:</b>	Keep away from oxidising agents, chlorine, strong acids
<b>Hazardous Decomposition Products:</b>	Oxides of carbon, noxious fumes
<b>Hazardous Reactions</b>	Will not polymerise

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Potential Health Effects

#### Acute Health Effects:

<b>Ingestion:</b>	Accidental ingestion of the material may be damaging to the health of the individual. The liquid may be harmful if swallowed and is capable of causing cold burns
<b>Eyes:</b>	The vapour is non-irritating to the eye. The liquid is capable of causing cold burns
<b>Skin:</b>	Vaporising liquid causes rapid cooling and may cause cold burns, frostbite
<b>Inhalation:</b>	Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. Vapour is heavier than air and may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure. Symptoms of asphyxia (suffocation) may include headache, dizziness, shortness of breath, muscular weakness, drowsiness and ringing in the ears.

**WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.**

#### Chronic Health Effects:

Principal routes of exposure are usually by inhalation of vapour/spray mist and skin contact / eye contact. As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place. atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

**Toxicity information:** Not available. Refer to individual constituents.

Unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

## SECTION 12 - ECOLOGICAL INFORMATION

Do not contaminate waterways and soil. No ecological information is available for this product

## SECTION 13 - DISPOSAL CONSIDERATIONS

Consult State Land Waste Management Authority for disposal.  
Discharge contents of damaged aerosol cans at an approved site.  
Allow small quantities to evaporate.  
DO NOT incinerate or puncture aerosol cans.  
Bury residues and emptied aerosol cans at an approved site.

## SECTION 14 - TRANSPORT INFORMATION

<b>Shipping Name:</b>	AEROSOLS
<b>Dangerous Goods Class:</b>	2.1
<b>Subrisk:</b>	None
<b>UN/NA Number:</b>	1950
<b>Packing Group:</b>	None
<b>Labels Required:</b>	Flammable Compressed Gas

## SECTION 15 - REGULATORY INFORMATION

**Poisons Schedule (SUSDP):** None

## SECTION 16 – OTHER INFORMATION

**Abbreviations/Acronyms:** ACGIH – American Conference of Government Industrial Hygienists.  
ADG – Australian Dangerous Goods.  
HSIS - Hazardous Substances Information System.  
IARC – International Agency for Research on Cancer.  
NIOSH – National Institute of Occupational Health and Safety.  
NOHSC – National Occupational Health and Safety Commission.  
PEL – Permissible Exposure Limit.  
STEL – Short Term Exposure Limit.  
SUSDP – Standard for the Uniform Scheduling of Drugs and Poisons.  
TLV – Threshold Limit Value.  
TWA – Time Weighted Average.

## DISCLAIMER

The information contained within this MSDS applies only to the Chemtools product to which the sheet relates.

The information provided is based on our best knowledge at the time of issue.

The information contained within this MSDS is believed to be accurate and is given in good faith. However, no warranty is made, either expressed or implied, regarding its accuracy or any liability arising out of the use of the information herein or the product supplied.

When used in other preparations, formulations, or in mixtures, it is necessary to ascertain whether the classifications of the hazards have changed. The attention of the user is drawn to the possibility of creating other hazards when the product is used for purposes other than that for which it was recommended. In such cases, a reassessment may be necessary and should be made by the user.

This safety data sheet should only be used and reproduced in order that the necessary measures are taken relating to the protection of health and safety at work.

It is the responsibility of the handlers to pass on the totality of the information contained within this document to any subsequent person(s) who will come in to contact with, handle or use this product in any way.

They should check the adequacy of the information provided within this MSDS before passing it on to their customers/staff.