Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 08/04/2014 : Version:

Item 1-11

Product identifier 1.1. : Mixture Product form Trade name : 1ST AYD STARTING FLUID 25% 10.7 OZ. Product code : 1-11 Relevant identified uses of the substance or mixture and uses advised against 1.2. : Starting Fluid Use of the substance/mixture Details of the supplier of the safety data sheet 1.3. FIRST AYD CORPORATION 1325 GATEWAY DRIVE ELGIN, IL 60123 T 800-422-3033 **Emergency telephone number** 1.4. Emergency number : CHEMTREC 24 Hour 1-800-424-9300, 1-703-527-3887 (International) **SECTION 2: Hazards identification** 2.1. **Classification of the substance or mixture Classification (GHS-US)** Flam, Aerosol 1 H222 Compressed gas H280 Skin Irrit. 2 H315 Muta. 1B H340 Carc. 1A H350 Repr. 2 H361 STOT SE 3 H336 STOT RE 2 H373 Full text of H-phrases: see section 16 2.2. Label elements **GHS-US** labeling Hazard pictograms (GHS-US) GHS04 GHS07 GHS02 GHS08 Signal word (GHS-US) : Danger Hazard statements (GHS-US) H222 - Extremely flammable aerosol H280 - Contains gas under pressure; may explode if heated H315 - Causes skin irritation H336 - May cause drowsiness or dizziness H340 - May cause genetic defects H350 - May cause cancer H361 - Suspected of damaging fertility or the unborn child H373 - May cause damage to organs through prolonged or repeated exposure P201 - Obtain special instructions Precautionary statements (GHS-US) P202 - Do not handle until all safety precautions have been read and understood P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking P211 - Do not spray on an open flame or other ignition source P251 - Pressurized container: Do not pierce or burn, even after use P260 - Do not breathe dust,fumes,gas,mist,vapor spray P261 - Avoid breathing dust,fume,gas,mist,vapor spray P264 - Wash affected areas thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective gloves, protective clothing, eye protection, face protection P302+P352 - If on skin: Wash with plenty of soap and water P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P308+P313 - If exposed or concerned: Get medical advice/attention P312 - Call a POISON CONTROL CENTER, doctor, if you feel unwell. P314 - Get medical advice/attention if you feel unwell P321 - Specific treatment: See section 4.1 on SDS P332+P313 - If skin irritation occurs: Get medical advice/attention P362 - Take off contaminated clothing and wash before reuse P403+P233 - Store in a well-ventilated place. Keep container tightly closed 01/12/2014 EN (English US) 1/11

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P405 - Store locked up P410+P403 - Protect from sunlight. Store in a well-ventilated place P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

2.3. Other hazards

Other hazards not contributing to the : Contains gas under pressure; may explode if heated. classification

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

- 3.1. Substance
- Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Heptane, Branched Cyclic	(CAS No) 426260-76-6	44.64 - 46.5	Flam. Liq. 1, H224 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
Diethyl Ether	(CAS No) 60-29-7	10 - 30	Flam. Liq. 1, H224 Acute Tox. 4 (Oral), H302
Petroleum Gases, Liquefied, Sweetened	(CAS No) 68476-86-8	10 - 30	Flam. Gas 1, H220 Flam. Liq. 1, H224 Muta. 1B, H340 Carc. 1A, H350
Heptane	(CAS No) 142-82-5	11.625 - 20.925	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Carbon Dioxide, Liquefied, Under Pressure	(CAS No) 124-38-9	5 - 10	Compressed gas, H280
Toluene	(CAS No) 108-88-3	0.465 - 1.86	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304
Distillates (Petroleum), Hydrotreated Heavy Naphthenic	(CAS No) 64742-52-5	< 1	Not classified

SECTION 4: First aid measures Description of first aid measures 4.1. First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention. First-aid measures after inhalation Cough. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell. First-aid measures after skin contact Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment: See section 4.1 on SDS. First-aid measures after eye contact Direct contact with the eyes is likely to be irritating. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist. First-aid measures after ingestion Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. · Most important symptoms and effects, both acute and delayed 4.2. : May cause genetic defects. Suspected of damaging fertility or the unborn child. Causes damage Symptoms/injuries to organs. Symptoms/injuries after inhalation : Shortness of breath. May cause cancer by inhalation. May cause drowsiness or dizziness. Symptoms/injuries after skin contact : Causes skin irritation. 4.3. Indication of any immediate medical attention and special treatment needed No additional information available **SECTION 5: Firefighting measures** 5.1. **Extinguishing media** Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand. Unsuitable extinguishing media : Do not use a heavy water stream.

5.2.	Special hazards arising from the substance or mixture
Fire haza	ard : Extremely flammable aerosol.

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Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Other information : A crosol level 3. SECTION 6: Accidental release measures 6.1. Personal precautions, protective equipment and emergency procedures 6.1. Personal precautions, protective equipment and emergency procedures 6.1. Personal precautions, protective equipment and emergency procedures 6.1. For non-emergency personnel Protective equipment : Gloves. Safety glasses. Emergency procedures : Evacuate unnecessary personnel. 6.1.2. For emergency responders Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust,fume,gas,mist,vapor spray. Emergency procedures : Ventilate area. 6.2. Environmental precautions Prevent entry to sewers and public waters. Notly authorities if liquid enters sewers or public waters. 6.3. Methods and material for containment and cleaning up Pro containment : Dam up the liquid splil. Methods for cleaning up : Store away from other materials. 6.4. Reference to other sections See Heading 8: Exposure controls and personal protection. SECETION 7: Handling and Storage 71. Precautions for safe handling Precautions for safe handling Precautions for safe handling Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work Previde good undersc. Othat person for more area in an open filame or other ignitions our container: Do not pierce or bur even after use. Precautions for safe handling Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good venter. Othat person for the ignition source. Use any person for the ignition source. Use any person for an open filame or other ignitions ource. Othing sections. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to d	Explosion hazard	: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
chemical free Prevent fire-fighting water from entering environment. DO NOT fight fire when fire areakes explosives. Evacuate area. Protection during firefighting	5.3. Advice for firefighters	
Other information : Aerosol level 3. SECTION 6: Accidental release measures 61. Personal precautions, protective equipment and emergency procedures General measures :: No naked lights. No smoking, lsolate from fire, if possible, without unnecessary risk. Remove ignition sources. Use special care to avoid static electric charges. 6.1.1. For non-emergency personnel Protective equipment :: Gloves, Safety glasses. Emergency procedures :: Evacuate unnecessary personnel. 6.1.2. For emergency responders Protective equipment :: Equip cleanup crew with proper protection. Avoid breathing dust,fume.gas.mist,vapor spray. Emergency procedures :: Ventilate area. 6.2. Environmental procautions Prevent entry to severs and public waters. Notify authorities if liquid enters severs or public waters. 6.3. Methods and material for containment and cleaning up For containment :: Dam up the liquid spill. Methods for cleaning up :: Store away from other materials. 6.4. Reference to other sections See Heading 8. Exposure controls and personal protection. SECTION 7: Handling and storage 7.1. Precautions for safe handling : Wash hands and other exposed a	Firefighting instructions	chemical fire. Prevent fire-fighting water from entering environment. DO NOT fight fire when fire
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SECTION 7: Handling and storage 7.1. Precautions for safe handling Additional hazards when processed : Hazardous waste due to potential risk of explosion. Pressurized container: Do not pierce or bur even after use. Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation vapor. Do not spray on an open flame or other lightion source. Obtain special instructions . Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Avoid breathing dust,fume.gas,mist,vapor spray. Use only outdoors or a well-ventilated area. Hygiene measures : Wash affected areas thoroughly after handling. 7.2. Conditions for safe storage, including any incompatibilities Technical measures : Proper grounding procedures to avoid static electricity should be followed. Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Do not expose to temperatures exceeding 50 °C / 122 °F. Keep in fireproof place. Keep container tightly closed. Incompatible products : Storage condition : Storage condition. Direct sunlight. Heat sources. Heat-ignition : KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources. Storage area : Store in a well-ventilated place. 7.3. Specific end use(s) : Store in a well-ventilated place.	6.4. Reference to other sections	
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Additional hazards when processed : Hazardous waste due to potential risk of explosion. Pressurized container: Do not pierce or bur even after use. Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation vapor. Do not spray on an open flame or other ignition source. Obtain special instructions . Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Avoid breathing dust,fume,gas,mist,vapor spray. Use only outdoors or a well-ventilated area. Hygiene measures : Wash affected areas thoroughly after handling. 7.2. Conditions for safe storage, including any incompatibilities Technical measures : Proper grounding procedures to avoid static electricity should be followed. Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep in fireproof place. Keep container tightly closed. Incompatible materials : Storag bases. Strong acids. Heat-ignition : KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources. Storage area : Store in a well-ventilated place. 7.3. Specific end use(s)	SECTION 7: Handling and storag	e
Precautions for safe handling even after use. Precautions for safe handling Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation vapor. Do not spray on an open flame or other ignition source. Obtain special instructions . Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Avoid breathing dust,fume,gas,mist,vapor spray. Use only outdoors or a well-ventilated area. Hygiene measures : Wash affected areas thoroughly after handling. 7.2. Conditions for safe storage, including any incompatibilities Technical measures : Proper grounding procedures to avoid static electricity should be followed. Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep in fireproof place. Keep container tightly closed. Incompatible materials : Sources of ignition. Direct sunlight. Heat sources. Heat-ignition : KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources. Storage area : Store in a well-ventilated place. 7.3. Specific end use(s) * Follow Label Directions. *	7.1. Precautions for safe handling	
smoking and when leaving work. Provide good ventilation in process area to prevent formation vapor. Do not spray on an open flame or other ignition source. Obtain special instructions . Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Avoid breathing dust,fume,gas,mist,vapor spray. Use only outdoors or a well-ventilated area. Hygiene measures : Wash affected areas thoroughly after handling. 7.2. Conditions for safe storage, including any incompatibilities Technical measures : Proper grounding procedures to avoid static electricity should be followed. Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep in fireproof place. Keep container tightly closed. Incompatible products : Storage bases. Strong acids. Incompatible materials : Sources of ignition. Direct sunlight. Heat sources. Heat-ignition : KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources. Storage area : Store in a well-ventilated place. 7.3. Specific end use(s) Store in a well-ventilated place.	Additional hazards when processed	: Hazardous waste due to potential risk of explosion. Pressurized container: Do not pierce or burn even after use.
7.2. Conditions for safe storage, including any incompatibilities Technical measures : Proper grounding procedures to avoid static electricity should be followed. Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep in fireproof place. Keep container tightly closed. Incompatible products : Strong bases. Strong acids. Incompatible materials : Sources of ignition. Direct sunlight. Heat sources. Heat-ignition : KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources. Storage area : Store in a well-ventilated place. 7.3. Specific end use(s)	Precautions for safe handling	smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not spray on an open flame or other ignition source. Obtain special instructions . Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Avoid breathing dust,fume,gas,mist,vapor spray. Use only outdoors or
Technical measures : Proper grounding procedures to avoid static electricity should be followed. Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep in fireproof place. Keep container tightly closed. Incompatible products : Strong bases. Strong acids. Incompatible materials : Sources of ignition. Direct sunlight. Heat sources. Heat-ignition : KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources. Storage area : Store in a well-ventilated place. 7.3. Specific end use(s) Follow Label Directions. :	Hygiene measures	: Wash affected areas thoroughly after handling.
Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep in fireproof place. Keep container tightly closed. Incompatible products : Strong bases. Strong acids. Incompatible materials : Sources of ignition. Direct sunlight. Heat sources. Heat-ignition : KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources. Storage area : Store in a well-ventilated place. 7.3. Specific end use(s)	7.2. Conditions for safe storage, inc	luding any incompatibilities
Incompatible products : Strong bases. Strong acids. Incompatible materials : Sources of ignition. Direct sunlight. Heat sources. Heat-ignition : KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources. Storage area : Store in a well-ventilated place. 7.3. Specific end use(s)	Technical measures	: Proper grounding procedures to avoid static electricity should be followed.
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Heat-ignition : KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources. Storage area : Store in a well-ventilated place. 7.3. Specific end use(s) Follow Label Directions.	Incompatible products	
Storage area : Store in a well-ventilated place. 7.3. Specific end use(s) Follow Label Directions.	•	
7.3. Specific end use(s) Follow Label Directions.	-	5
Follow Label Directions.	Ç.	. Store in a weil-ventilateu place.
SECTION 8: Exposure controls/personal protection		
	SECTION 8: Exposure controls/p	ersonal protection

8.1. Control parameters

Diethyl Ether (60-29-7)		
USA ACGIH	ACGIH TWA (mg/m³)	1200
USA ACGIH	ACGIH TWA (ppm)	400 ppm
USA ACGIH	ACGIH STEL (mg/m ³)	1500 mg/m³
USA ACGIH	ACGIH STEL (ppm)	500 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	1200 mg/m ³

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Diethyl Ether (60-29-7)				
USA OSHA	OSHA PEL (TWA) (ppm)	400 ppm		
Toluene (108-88-3)				
USA ACGIH	ACGIH TWA (mg/m ³)	75 mg/m³		
USA ACGIH	ACGIH TWA (ppm)	20 ppm		
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm		
USA OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm		
Heptane (142-82-5)	· ·			
USA ACGIH	ACGIH TWA (ppm)	400 ppm		
USA ACGIH	ACGIH STEL (ppm)	400 ppm		
Heptane, Branched C	Svelic (426260-76-6)			
USA ACGIH	ACGIH TWA (ppm)	400 ppm		
USA ACGIH	ACGIH STEL (ppm)	500 ppm		
USA OSHA	OSHA PEL (TWA) (ppm)	500 ppm		
Distillates (Petroleum	n), Hydrotreated Heavy Naphthenic (64742-52-5)			
USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³ MIST 8 HOURS		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³ MIST 8 HOURS		
Detroloum Cases Lie	quefied, Sweetened (68476-86-8)			
USA ACGIH	ACGIH TWA (ppm)	1000 ppm Listed under Aliphatic hydrocarbon gases alkane C1-C4		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1800 mg/m ³		
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm		
Carbon Dioxide Liqu	lefied, Under Pressure (124-38-9)			
USA ACGIH	ACGIH TWA (mg/m ³)	9000 mg/m ³		
USA ACGIH	ACGIH TWA (ppm)	5000 ppm		
USA ACGIH	ACGIH STEL (mg/m ³)	54000		
USA ACGIH	ACGIH STEL (ppm)	30000 ppm		
	OSHA PEL (TWA) (mg/m ³)	9000 mg/m ³		
USA OSHA				

Appropriate engineering controls Personal protective equipment

- : Local exhaust venilation, vent hoods.
- : Gloves. Safety glasses. Avoid all unnecessary exposure.



Hand protection: Wear protective gloves.Eye protection: Chemical goggles or safety glasses.Skin and body protection: Wear suitable protective clothing.Respiratory protection: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.Other information: Do not eat, drink or smoke during use.

 SECTION 9: Physical and chemical properties

 9.1.
 Information on basic physical and chemical properties

 Physical state
 : Gas

 Appearance
 : Colorless to pale yellow liquid.

 Color
 : Colourless to light yellow.

 Odor
 : Sweet.

 Odor threshold
 : No data available

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рН	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: -42 °C (LOWEST COMPONENT)
Flash point	: -23 °C
Auto-ignition temperature	: 180 °C (LOWEST COMPONENT)
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: >1.5
Relative density	: No data available
Solubility	: Poorly soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Heating may cause an explosion. Heating may cause a fire.
Oxidizing properties	: No data available
Explosive limits	: No data available
9.2. Other information	

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VOC content
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: 93.3 % CARB METHOD 310

SECTION 10: Stability and reactivity	SECTION 10: Stability and reactivity			
10.1. Reactivity	Reactivity			
No additional information available	No additional information available			
10.2. Chemical stability	Chemical stability			
Extremely flammable aerosol. Contains gas une sources of ignition.	der pressure; may explode if heated. Extreme risk of explosion by shock, friction, fire or other			
10.3. Possibility of hazardous reactions				
Not established.				
10.4. Conditions to avoid				
Direct sunlight. Extremely high or low temperate	ures. Heat. Sparks. Open flame. Overheating.			
10.5. Incompatible materials				
Strong acids. Strong bases.				
10.6. Hazardous decomposition product	'S			
Toxic fume Carbon monoxide. Carbon dioxide	9.			
SECTION 11: Toxicological informa	tion			
11.1. Information on toxicological effect				
Acute toxicity	: Not classified			
Diethyl Ether (60-29-7)				
LD50 oral rat	1215 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 1600 mg/kg bodyweight; Rat)			
LD50 dermal rabbit	> 14200 mg/kg (Rabbit)			
LC50 inhalation rat (mg/l)	99 mg/l/4h (Rat)			
LCE0 inholation rat (nam)				

 LD50 dermal rabbit
 > 14200 mg/kg (Rabbit)

 LC50 inhalation rat (mg/l)
 99 mg/l/4h (Rat)

 LC50 inhalation rat (ppm)
 32000 ppm/4h (Rat)

 Toluene (108-88-3)

 LD50 oral rat
 5580 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Literature study; 5580 mg/kg bodyweight; Rat; Experimental value)

 LD50 dermal rabbit
 > 5000 mg/kg body weight LD50 quoted as 14.1 mL/kg (12267 mg/kg using density of 0.87)

 LC50 inhalation rat (mg/l)
 > 28.1 mg/l/4h (Rat; Air, Literature study)

LC50 inhalation rat (mg/l) > 28.1 mg/l/4h (Rat; Air, Literature study) Heptane (142-82-5) LD50 oral rat > 15000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; >5000 mg/kg bodyweight; Rat; Read-across)

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Heptane (142-82-5)	
LD50 dermal rabbit	> 3160 mg/kg (Rabbit; Literature study; Equivalent or similar to OECD 402; >2000 mg/kg bodyweight; Rabbit; Read-across)
LC50 inhalation rat (mg/l)	103 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	25000 ppm/4h (Rat; Literature study)
Heptane, Branched Cyclic (426260-76-6)	
LD50 oral rat	> 15000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; >5000 mg/kg bodyweight; Rat; Read-across)
LD50 dermal rabbit	> 3160 mg/kg (Rabbit; Literature study; Equivalent or similar to OECD 402; >2000 mg/kg bodyweight; Rabbit; Read-across)
LC50 inhalation rat (mg/l)	103 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	25000 ppm/4h (Rat; Literature study)

Distillates (Petroleum), Hydrotreated Heavy Naphthenic (64742-52-5)		
LD50 oral rat	> 5000 mg/kg body weight	
LD50 dermal rabbit	> 2000 mg/kg body weight	
LC50 inhalation rat (mg/l)	> 5.2 mg/l/4h	
Skin corrosion/irritation	: Causes skin irritation.	
Serious eye damage/irritation	: Not classified	
Respiratory or skin sensitization	: Not classified	
Germ cell mutagenicity	: May cause genetic defects.	
Carcinogenicity	: May cause cancer.	

Toluene (108-88-3)		
IARC group	3	
Distillates (Petroleum), Hydrotreated Heavy Naphthenic (64742-52-5)		
IARC group	3	
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.	
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.	
Specific target organ toxicity (repeated	: May cause damage to organs through prolonged or repeated exposure.	

exposure)	
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: Shortness of breath. May cause cancer by inhalation. May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	: Causes skin irritation.

SECTION 12: Ecological information

^{12.1.} Toxicity

Diethyl Ether (60-29-7)		
LC50 fish 1	> 10000 ppm (96 h; Lepomis macrochirus)	
EC50 Daphnia 1	165 mg/l (24 h; Daphnia magna)	
LC50 fish 2	2560 mg/l (96 h; Pimephales promelas)	
EC50 Daphnia 2	1380 mg/l (48 h; Daphnia magna)	
TLM fish 1	> 1000 mg/l (96 h; Pisces)	
TLM other aquatic organisms 1	> 1000 mg/l (96 h)	
Toluene (108-88-3)		
LC50 fish 1	24 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)	
EC50 Daphnia 1	84 mg/l (24 h; Daphnia magna; Locomotor effect)	
LC50 fish 2	13 mg/l (96 h; Lepomis macrochirus)	
EC50 Daphnia 2	11.5 - 19.6 mg/l (48 h; Daphnia magna)	
Threshold limit algae 1	> 400 mg/l (168 h; Scenedesmus quadricauda; Toxicity test)	
Threshold limit algae 2	105 mg/l (192 h; Microcystis aeruginosa)	
Heptane (142-82-5)		
LC50 fish 1	375 mg/l (96 h; Tilapia mosambica; Nominal concentration)	
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)	
EC50 Daphnia 1	1.5 mg/l (48 h; Daphnia magna)	
LC50 fish 2	> 100 mg/l (96 h; Oncorhynchus kisutch)	
TLM fish 1	4924 mg/l (48 h; Gambusia affinis)	
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Heptane (142-82-5)	
Threshold limit other aquatic organisms 1	> 1000 mg/l (96 h)
Threshold limit algae 1	> 200 mg/l (Scenedesmus quadricauda; Toxicity test)
Threshold limit algae 2	1.5 mg/l (8 h; Algae; Photosynthesis)
Carbon Dioxide, Liquefied, Under Pressure	(124-38-0)
LC50 fish 1	35 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Lethal)
LC50 fish 2	60 - 240 mg/l (12 h; Salmo gairdneri (Oncorhynchus mykiss); Lethal)
	60 - 240 mg/r (12 m, Saimo gardnen (Oncomynchus mykiss), Leinai)
12.2. Persistence and degradability	
1ST AYD STARTING FLUID 25% 10.7 OZ.	
Persistence and degradability	Not established.
Diethyl Ether (60-29-7)	
Persistence and degradability	Not readily biodegradable in water. No (test)data on mobility of the substance available.
	Reacts with air.
Biochemical oxygen demand (BOD)	0.03 g O ₂ /g substance
Chemical oxygen demand (COD)	$0.026 \text{ g } O_2$ /g substance (KMnO4)
ThOD	2.60 g O ₂ /g substance
BOD (% of ThOD)	0.012 % ThOD
Toluene (108-88-3) Persistence and degradability	Doodily biodogradable in water Diodogradable in the spill I am a testial for a describer in suff
	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD) Chemical oxygen demand (COD)	2.15 g O_2 /g substance
	2.52 g O_2 /g substance
	3.13 g O ₂ /g substance 0.69 % ThOD
BOD (% of ThOD)	0.69 % INOD
Heptane (142-82-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	1.92 g O ₂ /g substance
Chemical oxygen demand (COD)	0.06 g O ₂ /g substance
ThOD	3.52 g O ₂ /g substance
BOD (% of ThOD)	> % ThOD (5 day(s)) > 0.5
Heptane, Branched Cyclic (426260-76-6)	
Persistence and degradability	May cause long-term adverse effects in the environment.
Petroleum Gases, Liquefied, Sweetened (68	
Persistence and degradability	Not established.
Carbon Dioxide, Liquefied, Under Pressure	(124-38-9)
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
12.3. Bioaccumulative potential	
1ST AYD STARTING FLUID 25% 10.7 OZ.	
Bioaccumulative potential	Not established.
•	
Diethyl Ether (60-29-7)	
BCF fish 1	0.9 - 9.1 (Cyprinus carpio; Test duration: 6 weeks)
Log Pow	0.82 - 0.89 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Toluene (108-88-3)	
BCF fish 1	13.2 (Anguilla japonica)
BCF fish 2	90 (72 h; Leuciscus idus)
BCF other aquatic organisms 1	380 (24 h; Chlorella sp.; Fresh weight)
BCF other aquatic organisms 2	4.2 (Mytilus edulis; Fresh weight)
Log Pow	2.73 (Experimental value; Other; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Heptane (142-82-5)	550
BCF other aquatic organisms 1	552
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Heptane (142-82-5)	
Log Pow	4.66 (Experimental value; 4.5; Literature)
Bioaccumulative potential	Potential for bioaccumulation ($4 \ge Log$ Kow ≤ 5).
Heptane, Branched Cyclic (426260-76-6)	
Bioaccumulative potential	Not established.
Petroleum Gases, Liquefied, Sweetened (684	176-86-8)
Bioaccumulative potential	Not established.
Carbon Dioxide, Liquefied, Under Pressure ((124_38_0)
Log Pow	0.83 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
12.4. Mobility in soil	
Diethyl Ether (60-29-7)	
Surface tension	0.017 N/m (20 °C)
Toluene (108-88-3)	
Surface tension	0.03 N/m (20 °C)
Heptane (142-82-5)	
Surface tension	0.020 N/m (20 °C)
12.5. Other adverse effects	
Other information	: Avoid release to the environment.
SECTION 13: Disposal consideration	IS
13.1. Waste treatment methods	
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Container under
	pressure. Do not drill or burn even after use. Dispose of contents/container to appropriate waster
Additional information	disposal facility, in accordance with local, regional, national, international regulations. : Flammable vapors may accumulate in the container.
Ecology - waste materials	: Avoid release to the environment.
Ecology - waste materials	. Avoid release to the environment.
SECTION 14: Transport information	
In accordance with ADR / RID / IMDG / IATA / AD	DN
US DOT (ground): UN1950, Aerosols, 2.1,	Limited Quantity
ICAO/IATA (air): UN1950, Aerosols, 2.1	, Limited Quantity
IMO/IMDG (water): UN1950, Aerosols, 2.1	, Limited Quantity
Special Provisions: N82 - See 173.306 of th	nis subchapter for classification criteria for flammable aerosols.
14.2. UN proper shipping name	
14.2. UN proper shipping name Proper Shipping Name (DOT)	: Aerosols
	flammable, n.o.s. (engine starting fluid) (each not exceeding 1 L capacity)
Department of Transportation (DOT) Hazard	: 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115
Classes	
Hazard labels (DOT)	: 2.1 - Flammable gas
DOT Special Provisions (49 CFR 172.102)	: N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 306
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 304
DOT Packaging Bulk (49 CFR 173.xxx)	: None
14.3. Additional information	
Other information	: No supplementary information available.

Overland transport

No additional information available

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Transport by sea		
DOT Vessel Stowage Location	:	A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	:	48 - Stow "away from" sources of heat,87 - Stow "separated from" Class 1 (explosives) except Division 14,126 - Segregation same as for Class 9, miscellaneous hazardous materials
Air transport		
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	Forbidden
DOT Quantity Limitations Cargo aircraft only (49		150 kg

DOT Quantity Limitations Cargo aircraft only (49 : 150 kg CFR 175.75)

SECTION 15: Regulatory information				
15.1. US Federal regulations				
1ST AYD STARTING FLUID 25% 10.7 OZ.				
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard Immediate (acute) health hazard Sudden release of pressure hazard			
Diethyl Ether (60-29-7)				
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard			
Toluene (108-88-3)				
Listed on United States SARA Section 313 Listed on the United States TSCA (Toxic Substances Control Act) inventory				
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard Immediate (acute) health hazard			
Heptane, Branched Cyclic (426260-76-6)				
Not listed on the United States TSCA (Toxic Sub	stances Control Act) inventory			
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard			
Distillates (Petroleum), Hydrotreated Heavy N	aphthenic (64742-52-5)			
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard			
Petroleum Gases, Liquefied, Sweetened (6847	/6-86-8)			
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard Sudden release of pressure hazard			

15.2. International regulations

CANADA

1ST AYD STARTING FLUID 25% 10.	ST AYD STARTING FLUID 25% 10.7 OZ.		
WHMIS Classification	Class B Division 5 - Flammable Aerosol Class D Division 2 Subdivision B - Toxic material causing other toxic effects		
Toluene (108-88-3)			
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects		
Heptane, Branched Cyclic (426260-76-6)			
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects		

EU-Regulations

Toluene (108-88-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Carc.Cat.1; R45 Muta.Cat.2; R46

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Repr.Cat.3; R63 F+; R12 Xn; R22 Xi; R38 R19

Full text of R-phrases: see section 16

15.2.2. National regulations

No additional information available

Yes
U.S California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Toluene (108-88-3)

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

: None.

SECTION 16: Other information

Training advice

: Ensure operators understand the flammability hazard. Ensure operators understand the hazard of oxygen enrichment. Receptacle under pressure.

Other information

Full text of H-phrases: see section 16:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Compressed gas	Gases under pressure Compressed gas
Flam. Aerosol 1	Flammable aerosol Category 1
Flam. Gas 1	Flammable gases Category 1
Flam. Liq. 1	Flammable liquids Category 1
Flam. Liq. 2	Flammable liquids Category 2
Muta. 1B	Germ cell mutagenicity Category 1B
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H220	Extremely flammable gas
H222	Extremely flammable aerosol
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

NFPA health hazard

: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.



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NFPA fire hazard	: 4 - Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	: 4 Severe Hazard
Physical	: 1 Slight Hazard
Personal Protection	: B

SDS US (GHS HazCom 2012) - TCC

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

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