Safety Data Sheet

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

Revision date: 01/31/2017 Supersedes:07/15/2015 Version: 1.2

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

1.1. Product identifier

Product form : Mixture

Trade name : POLAR PREMIUM STARTING FLUID 11 OZ.

Product code : 082

Other means of identification : This diesel fuel additive complies with federal low sulfur content requirements for use in diesel

motor vehicles and nonroad engines.

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

Use of the substance/mixture : Starting Fluid

1.3. Details of the supplier of the safety data sheet

Warren Distribution Inc. 727 S. 13th Street Omaha, NE 68102 T 402-977-5739

1.4. Emergency telephone number

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

GHS-US classification

Flam. Aerosol 1 H222
Compressed gas H280
Skin Irrit. 2 H315
Carc. 2 H351
Repr. 2 H361
STOT SE 3 H366
STOT RF 2 H373

Full text of H statements : see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)







GHS02 GHS04

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 H351 - Suspected of causing cancer

H361 - Suspected of damaging fertility or the unborn child

H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) : P201 - Obtain special instructions

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+P364 - Take off contaminated clothing and wash it before reuse

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P403+P233 - Store in a well-ventilated place. Keep container tightly closed

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 classification

: Contains gas under pressure; may explode if heated. None under normal conditions.

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	%	GHS-US classification
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	22.5 - 25	Flam. Liq. 1, H224 Acute Tox. 4 (Oral), H302 Carc. 2, H351 Repr. 2, H361 STOT SE 3, H336
Petroleum Gases, Liquefied, Sweetened	(CAS No) 68476-86-8	10 - 30	Flam. Gas 1, H220 Compressed gas, H280
n-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 - 1.985	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304
Ethanol	(CAS No) 64-17-5	<= 1.35	Flam. Liq. 2, H225
Distillates (Petroleum), Hydrotreated Heavy Naphthenic	(CAS No) 64742-52-5	<1	Asp. Tox. 1, H304
Chloroethane	(CAS No) 75-00-3	<= 0.5	Flam. Gas 1, H220 Carc. 2, H351 Aquatic Chronic 3, H412
Methanol	(CAS No) 67-56-1	<= 0.075	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist), H331 STOT SE 1, H370
2-Propanol	(CAS No) 67-63-0	<= 0.075	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
2,6-Di-tert-butyl-p-cresol	(CAS No) 128-37-0	0 - 0.025	Acute Tox. 4 (Oral), H302
Methyl Isobutyl Ketone	(CAS No) 108-10-1	<= 0.015	Flam. Liq. 2, H225 Acute Tox. 3 (Inhalation:gas), H331 Eye Irrit. 2A, H319 STOT SE 3, H335

The exact percentage is a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention. Suspected of causing cancer.

First-aid measures after inhalation : Cough. Remove victim to fresh air and keep a

: Cough. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or 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.

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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.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Suspected of damaging fertility or the unborn child. Causes damage to organs.

Symptoms/injuries after inhalation : Shortness of breath. 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 hazard : Extremely flammable aerosol.

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of

burns and injuries.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment. DO NOT fight fire when fire

reaches explosives. Evacuate area.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Aerosol level 3

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : No open flames. No smoking. Isolate 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 precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Dam up the liquid spill. Contain released substance, pump into suitable containers. Plug the

leak, cut off the supply.

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

Additional hazards when processed : Hazardous waste due to potential risk of explosion. Pressurized container: Do not pierce or

Precautions for safe handling

burn, even after use.

: 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 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. Avoid breathing dust,fume,gas,mist,vapor spray. Use only outdoors or in a well-ventilated area.

Hygiene measures : Wash affected areas thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Always wash hands after handling the

product. Wash contaminated clothing before reuse. Always wash hands after handling the product. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Wash hands and other exposed areas with mild soap and water before eating, disking as a making and when losting work.

drinking or smoking and when leaving work.

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7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Provide local

exhaust or general room ventilation. Comply with applicable regulations.

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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Diethyl Ether (60-29-7)		
USA ACGIH	ACGIH TWA (mg/m³)	1200
USA ACGIH	ACGIH TWA (ppm)	400 ppm (Ethyl ether; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (mg/m³)	1500 mg/m³
USA ACGIH	ACGIH STEL (ppm)	500 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	1200 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	400 ppm
Toluene (108-88-3)		
USA ACGIH	ACGIH TWA (mg/m³)	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
n-Heptane (142-82-5)		
USA ACGIH	ACGIH TWA (ppm)	400 ppm (Heptane, all isomers; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (ppm)	500 ppm (Heptane, all isomers; USA; Short time value; TLV - Adopted Value)
Heptane, Branched Cyclic	: (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), Hy	drotreated Heavy Naphthenic (64742-52-5)	
USA ACGIH	ACGIH TWA (mg/m³)	5 mg/m³ MIST 8 HOURS
USA OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m³ MIST 8 HOURS
Petroleum Gases, Liquefic	ed, 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/m³)	1800 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
Carbon Dioxide, Liquefied	l, Under Pressure (124-38-9)	
USA ACGIH	ACGIH TWA (mg/m³)	9000 mg/m³
USA ACGIH	ACGIH TWA (ppm)	5000 ppm (Carbon dioxide; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (mg/m³)	54000
USA ACGIH	ACGIH STEL (ppm)	30000 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	9000 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	5000 ppm
Methanol (67-56-1)		·
USA ACGIH	ACGIH TWA (mg/m³)	262 mg/m³
USA ACGIH	ACGIH TWA (mg/m³)	262 mg/m³

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Methanol (67-56-1)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm (Methanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (mg/m³)	328 mg/m ³
USA ACGIH	ACGIH STEL (ppm)	250 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm
2-Propanol (67-63-0)		
USA ACGIH	ACGIH TWA (mg/m³)	980 mg/m³
USA ACGIH	ACGIH TWA (ppm)	400 ppm
USA ACGIH	ACGIH STEL (mg/m³)	1225 mg/m³
USA ACGIH	ACGIH STEL (ppm)	500 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	980 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	400 ppm
Methyl Isobutyl Keto	ne (108-10-1)	
USA ACGIH	ACGIH TWA (ppm)	20 ppm (Methyl isobutyl ketone; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA ACGIH	ACGIH STEL (ppm)	75 ppm (Methyl isobutyl ketone; USA; Short time value; TLV - Adopted Value)
Ethanol (64-17-5)		
USA ACGIH	ACGIH STEL (ppm)	1000 ppm (Ethanol; USA; Short time value; TLV - Adopted Value)
2,6-Di-tert-butyl-p-cr	esol (128-37-0)	
USA ACGIH	ACGIH TWA (mg/m³)	2 mg/m³ (Butylated hydroxytoluene (BHT); USA; Tim weighted average exposure limit 8 h; TLV - Adopted Value; Inhalable fraction and vapor)
.2. Exposure co	ntrols	

Appropriate engineering controls : Local exhaust venilation, vent hoods . Ensure good ventilation of the work station.

Personal protective equipment : Gloves. Safety glasses. Avoid all unnecessary exposure.





Materials for protective clothing : GIVE EXCELLENT RESISTANCE:

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.

Environmental exposure controls : Avoid release to the environment.

Consumer exposure controls : Avoid contact during pregnancy/while nursing.

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 pH : No data available Relative evaporation rate (butyl acetate=1) : No data available Melting point : No data available Freezing point : No data available : No data available

Boiling point : -42 °C (Lowest Component)
Flash point : -23 °C (Lowest Component)

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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
Explosion limits : No data available

9.2. Other information

VOC content : 93.3 %
Gas group : Compressed gas

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Extreme risk of explosion by shock, friction, fire or other sources of ignition.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Heat. Sparks. Open flame. Overheating.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Toxic fume. . Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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)
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)
n-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)
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)

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12.1.

Toxicity

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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 N	Naphthenic (64742-52-5)
LD50 oral rat	> 5000 mg/kg body weight
Methanol (67-56-1)	
LD50 oral rat	>= 2528 mg/kg body weight application as 50% aqueous solution
LD50 dermal rabbit	17100 mg/kg corresponding to 20 ml/kg bw according to the authors
LC50 inhalation rat (mg/l)	128.2 mg/l/4h Air
2-Propanol (67-63-0)	
LD50 dermal rabbit	12870 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 16.4; Rabbit)
LC50 inhalation rat (mg/l)	73 mg/l/4h (Rat)
Methyl Isobutyl Ketone (108-10-1)	
LD50 oral rat	2080 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rat	>= 2000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	8.2- 16.4,Rat; Experimental value
LC50 inhalation rat (ppm)	2000 ppm/4h (Rat; Experimental value,Rat; Experimental value)
Ethanol (64-17-5)	
LD50 oral rat	10740 mg/kg body weight (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit; Literature study)
2,6-Di-tert-butyl-p-cresol (128-37-0)	
LD50 oral rat	890 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; >6000 mg/kg bodyweight; Rat)
LD50 dermal rat	> 2000 mg/kg (Rat; Literature study; OECD 402: Acute Dermal Toxicity; >2000 mg/kg bodyweight; Rat; Experimental value)
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
Toluene (108-88-3)	
IARC group	3
Distillates (Petroleum), Hydrotreated Heavy	
IARC group	3
2-Propanol (67-63-0)	
IARC group	3
] 3
Ethanol (64-17-5)	
IARC group	1
2,6-Di-tert-butyl-p-cresol (128-37-0)	
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 exposure)	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Potential Adverse human health effects and ymptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: Shortness of breath. May cause drowsiness or dizziness.
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Symptoms/injuries after skin contact	: Causes skin irritation.

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Diethyl Ether (60-29-7)

LC50 fish 2

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L030 11311 Z	2000 mg/r (2000, 50 m, 1 internates prometas)
EC50 Daphnia 2	1380 mg/l (EC50; 48 h)
n-Heptane (142-82-5)	
EC50 Daphnia 1	0.2 mg/l (LC50; Other; 96 h; Chaetogammarus marinus; Semi-static system; Salt water; Experimental value)
Carbon Dioxide, Liquefied, Under Pressu	ıre (124-38-9)
LC50 fish 1	35 mg/l (LC50; 96 h; Salmo gairdneri)
Methanol (67-56-1)	
LC50 fish 1	15400 mg/l (LC50; EPA 660/3 - 75/009; 96 h; Lepomis macrochirus; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	> 10000 mg/l (EC50; DIN 38412-11; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
LC50 fish 2	10800 mg/l (LC50; 96 h; Salmo gairdneri)
2-Propanol (67-63-0)	
LC50 fish 2	9640 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 2	13299 mg/l (EC50; Other; 48 h; Daphnia magna)
Ethanol (64-17-5)	
LC50 fish 2	13000 mg/l (LC50; 96 h; Salmo gairdneri; Static system; Fresh water)
2,6-Di-tert-butyl-p-cresol (128-37-0)	
LC50 fish 1	>= 0.57 mg/l (LC0; EU Method C.1; 96 h; Brachydanio rerio; Semi-static system; Fresh water;
	Experimental value) 0.48 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna;
EC50 Daphnia 1	Static system; Fresh water; Experimental value)
LC50 fish 2	0.199 mg/l (LC50; ECOSAR v1.00; 96 h; Pisces)
EC50 Daphnia 2	0.15 mg/l (NOEC; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
2.2. Persistence and degradability	
POLAR PREMIUM STARTING FLUID 11 C	DZ.
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 g O ₂ /g substance (KMnO4)
ThOD	2.60 g O ₂ /g substance
BOD (% of ThOD)	0.012
Toluene (108-88-3)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	2.15 g O ₂ /g substance
Chemical oxygen demand (COD)	2.52 g O ₂ /g substance
ThOD	3.13 g O ₂ /g substance
BOD (% of ThOD)	0.69
n-Heptane (142-82-5)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Low potential for adsorption in soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	1.92 g O ₂ /g substance
Chemical oxygen demand (COD)	0.06 g O₂/g substance
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ThOD	3.52 g O ₂ /g substance
BOD (% of ThOD)	<u> </u>
BOD (% of ThOD) Heptane, Branched Cyclic (426260-76-6)	3.52 g O ₂ /g substance > 0.5 (5 days; Literature study)
BOD (% of ThOD)	3.52 g O ₂ /g substance
BOD (% of ThOD) Heptane, Branched Cyclic (426260-76-6)	3.52 g O ₂ /g substance > 0.5 (5 days; Literature study) May cause long-term adverse effects in the environment.
BOD (% of ThOD) Heptane, Branched Cyclic (426260-76-6) Persistence and degradability	3.52 g O ₂ /g substance > 0.5 (5 days; Literature study) May cause long-term adverse effects in the environment.
BOD (% of ThOD) Heptane, Branched Cyclic (426260-76-6) Persistence and degradability Distillates (Petroleum), Hydrotreated Hea	3.52 g O ₂ /g substance > 0.5 (5 days; Literature study) May cause long-term adverse effects in the environment. avy Naphthenic (64742-52-5) Not established.
BOD (% of ThOD) Heptane, Branched Cyclic (426260-76-6) Persistence and degradability Distillates (Petroleum), Hydrotreated Heal Persistence and degradability	3.52 g O ₂ /g substance > 0.5 (5 days; Literature study) May cause long-term adverse effects in the environment. avy Naphthenic (64742-52-5) Not established.
BOD (% of ThOD) Heptane, Branched Cyclic (426260-76-6) Persistence and degradability Distillates (Petroleum), Hydrotreated Heat Persistence and degradability Petroleum Gases, Liquefied, Sweetened (3.52 g O ₂ /g substance > 0.5 (5 days; Literature study) May cause long-term adverse effects in the environment. avy Naphthenic (64742-52-5) Not established. (68476-86-8) Not established.
BOD (% of ThOD) Heptane, Branched Cyclic (426260-76-6) Persistence and degradability Distillates (Petroleum), Hydrotreated Heat Persistence and degradability Petroleum Gases, Liquefied, Sweetened (Persistence and degradability)	3.52 g O ₂ /g substance > 0.5 (5 days; Literature study) May cause long-term adverse effects in the environment. avy Naphthenic (64742-52-5) Not established. (68476-86-8) Not established.

2560 mg/l (LC50; 96 h; Pimephales promelas)

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Carbon Dioxide, Liquefied, Under Pressui	re (124-38-9)
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
Methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O ₂ /g substance
Chemical oxygen demand (COD)	1.42 g O ₂ /g substance
ThOD	1.5 g O ₂ /g substance
BOD (% of ThOD)	0.8 (Literature study)
2-Propanol (67-63-0)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.19 g O ₂ /g substance
Chemical oxygen demand (COD)	2.23 g O ₂ /g substance
ThOD	2.40 g O ₂ /g substance
Methyl Isobutyl Ketone (108-10-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air. Not established.
Biochemical oxygen demand (BOD)	2.06 g O ₂ /g substance
Chemical oxygen demand (COD)	2.16 g O ₂ /g substance
ThOD	2.72 g O ₂ /g substance
BOD (% of ThOD)	0.76
Ethanol (64-17-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	0.8 - 0.967 g O ₂ /g substance
Chemical oxygen demand (COD)	1.70 g O ₂ /g substance
ThOD	2.10 g O ₂ /g substance
Chloroethane (75-00-3)	
Persistence and degradability	May cause long-term adverse effects in the environment.
2,6-Di-tert-butyl-p-cresol (128-37-0)	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil. Adsorbs into the soil. Low potential for mobility in soil. Photooxidation in the air.
Biochemical oxygen demand (BOD)	0.51 g O ₂ /g substance
Chemical oxygen demand (COD)	2.27 g O ₂ /g substance
ThOD	2.977 g O ₂ /g substance
BOD (% of ThOD)	0.17
12.3. Bioaccumulative potential	
POLAR PREMIUM STARTING FLUID 11 0	Z.
Bioaccumulative potential	Not established.
Diethyl Ether (60-29-7)	
BCF fish 1	0.9 - 9.1 (BCF)
Log Pow	0.82 - 0.89 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Toluene (108-88-3)	
BCF fish 2	90 (BCF; 72 h; Leuciscus idus; Static system; Fresh water)
Log Pow	2.73 (Experimental value; Other; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
n-Heptane (142-82-5)	
BCF other aquatic organisms 1	552 (BCF; BCFBAF v3.00)
Log Pow	4.66 (Experimental value; 4.5; Literature study)
Bioaccumulative potential	Potential for bioaccumulation (4 ≥ Log Kow ≤ 5).
Heptane, Branched Cyclic (426260-76-6)	
Bioaccumulative potential	Not established.
Distillates (Petroleum), Hydrotreated Heav	vy Naphthenic (64742-52-5)
Bioaccumulative potential	Not established.

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Bioaccumulative potential	Petroleum Gases, Liquefied, Sweetened (68476-86-8)
Description	Bioaccumulative potential	Not established.
Log Pow 0.83 (Experimental value)	Carbon Dioxide, Liquefied, Under Pressu	re (124-38-9)
Bioaccumulative potential Bioaccumulation: not applicable.	· · · · · · · · · · · · · · · · · · ·	·
## Methanol (67-56-1) ## BCF fish 1	<u> </u>	
Sec Sec	·	
Log Pow -0.77 (Experimental value; Other)		< 10 (BCF: 72 h: Leuciscus idus)
Bioaccumulative potential Low potential for bioaccumulation (BCF < 800).		
2-Propanol (67-63-0) Log Pow 0.05 (Weight of evidence approach; Other; 25 °C)	<u> </u>	
Log Pow 0.05 (Weight of evidence approach; Other; 25 °C)	'	
Bioaccumulative potential Low potential for bioaccumulation (Log Kow < 4).	<u> </u>	0.05 (Weight of evidence approach: Other: 25 °C)
Methyl Isobutyl Ketone (108-10-1) BCF fish 1	<u> </u>	
SCF fish 1	·	zon paternarior prodocurraration (zog non vij).
Log Pow	, ,	2 5 (RCE)
Ethanol (64-17-5)		
Ethanol (64-17-5) Log Pow		
Display	<u> </u>	Low potential for bioaccultulation (DOI < 500). Not established.
Method: 24 °C) Bioaccumulative potential Low potential for bioaccumulation (Log Kow < 4).	• • •	0.35 (Evporimental value: OECD 407: Partition Coefficient (a extensit value): Challes Fleet
Chloroethane (75-00-3) Sioaccumulative potential Not established. 2,6-Di-tert-butyl-p-cresol (128-37-0) 230 - 2500 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 56 days; Cyprinc carpic, Flow-through system; Fresh water: Experimental value) Log Pow 5.1 (Experimental value) Bioaccumulative potential Potential for bioaccumulation (500 ≤ BCF ≤ 5000). 12.4. Mobility in soil Diethy Ether (60-29-7) Surface tension 0.017 N/m (20 °C) Toluene (108-88-3) Surface tension 0.019 N/m (25 °C; 0.020 N/m; 20 °C) Log Koc log Koc,SRC PCKOCWIN v2.0; 2.38; Calculated value Methanol (67-56-1) Surface tension 0.023 N/m (20 °C) Log Koc Koc,PCKOCWIN v1.66; 1; Calculated value 2-Propanol (67-63-0) Surface tension 0.021 N/m (25 °C) Methyl Isobutyl Ketone (108-10-1) Surface tension Surface tension 0.024 N/m (20 °C) Log Koc Koc, 10,55, Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value Ethanol (64-17-5) Surface tension 0.0245 N/m (20 °C) </td <td></td> <td>Method; 24 °C)</td>		Method; 24 °C)
Bioaccumulative potential Not established.	Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
2,6-Di-tert-butyl-p-cresol (128-37-0) BCF fish 1 230 - 2500 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 56 days; Cyprinc carpio, Flow-through system; Fresh water; Experimental value) Log Pow 5.1 (Experimental value) Bioaccumulative potential Potential for bioaccumulation (500 ≤ BCF ≤ 5000). 12.4. Mobility in soil Diethyl Ether (60-29-7) Surface tension 0.017 N/m (20 °C) Toluene (108-88-3) Surface tension 0.019 N/m (25 °C; 0.020 N/m; 20 °C) Log Koc Iog Koc,SRC PCKOCWIN v2.0; 2.38; Calculated value Methanol (67-56-1) Surface tension 0.023 N/m (20 °C) Log Koc Koc,PCKOCWIN v1.66; 1; Calculated value 2-Propanol (67-63-0) Surface tension 0.021 N/m (25 °C) Methyl Isobutyl Ketone (108-10-1) Surface tension 0.024 N/m (20 °C) Log Koc Calculated value Ethanol (64-17-5) Surface tension 0.0245 N/m (20	Chloroethane (75-00-3)	
BCF fish 1	Bioaccumulative potential	Not established.
Carpio; Flow-through system; Fresh water; Experimental value) Bioaccumulative potential Potential for bioaccumulation (500 ≤ BCF ≤ 5000). 12.4. Mobility in soil	2,6-Di-tert-butyl-p-cresol (128-37-0)	
Bioaccumulative potential Potential for bioaccumulation (500 ≤ BCF ≤ 5000). 12.4. Mobility in soil	BCF fish 1	230 - 2500 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 56 days; Cyprinus carpio; Flow-through system; Fresh water; Experimental value)
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) n-Heptane (142-82-5) Surface tension 0.019 N/m (25 °C; 0.020 N/m; 20 °C) Log Koc log Koc, SRC PCKOCWIN v2.0; 2.38; Calculated value Methanol (67-56-1) Surface tension 0.023 N/m (20 °C) Log Koc Koc, PCKOCWIN v1.66; 1; Calculated value 2-Propanol (67-63-0) Surface tension 0.021 N/m (25 °C) Methyl Isobutyl Ketone (108-10-1) Surface tension 0.024 N/m (20 °C) Log Koc Koc, 101.85; Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value Ethanol (64-17-5) Surface tension 0.0245 N/m (20 °C) Calculated value Calculated value Coc, PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value Coc, PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value	Log Pow	5.1 (Experimental value)
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) n-Heptane (142-82-5) Surface tension 0.019 N/m (25 °C; 0.020 N/m; 20 °C) Log Koc log Koc,SRC PCKOCWIN v2.0; 2.38; Calculated value Methanol (67-56-1) Surface tension 0.023 N/m (20 °C) Log Koc Koc,PCKOCWIN v1.66; 1; Calculated value 2-Propanol (67-63-0) Surface tension Surface tension 0.021 N/m (25 °C) Methyl Isobutyl Ketone (108-10-1) Surface tension Surface tension 0.024 N/m (20 °C) Log Koc Koc, 101.85; Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value Ethanol (64-17-5) Surface tension 0.0245 N/m (20 °C) Ze-Di-tert-butyl-p-cresol (128-37-0) Koc, PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value	Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).
Surface tension 0.017 N/m (20 °C) Toluene (108-88-3) Surface tension 0.03 N/m (20 °C) n-Heptane (142-82-5)	12.4. Mobility in soil	
Surface tension 0.017 N/m (20 °C) Toluene (108-88-3) Surface tension 0.03 N/m (20 °C) n-Heptane (142-82-5)	Diethyl Ether (60-29-7)	
Toluene (108-88-3) Surface tension	, ,	0.017 N/m (20 °C)
Surface tension 0.03 N/m (20 °C) n-Heptane (142-82-5) Surface tension 0.019 N/m (25 °C; 0.020 N/m; 20 °C) Log Koc log Koc,SRC PCKOCWIN v2.0; 2.38; Calculated value Methanol (67-56-1) Surface tension 0.023 N/m (20 °C) Log Koc Koc,PCKOCWIN v1.66; 1; Calculated value 2-Propanol (67-63-0) Surface tension 0.021 N/m (25 °C) Methyl Isobutyl Ketone (108-10-1) Surface tension 0.024 N/m (20 °C) Log Koc Koc,101.85; Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value Ethanol (64-17-5) Surface tension 0.0245 N/m (20 °C) 2,6-Di-tert-butyl-p-cresol (128-37-0) Log Koc Koc,PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value		0.011 (4111 (2.0 0)
N-Heptane (142-82-5) Surface tension 0.019 N/m (25 °C; 0.020 N/m; 20 °C) log Koc log Koc, SRC PCKOCWIN v2.0; 2.38; Calculated value	, ,	0.03 N/m /20 °C\
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Surface tension 0.023 N/m (20 °C) Log Koc Koc,PCKOCWIN v1.66; 1; Calculated value 2-Propanol (67-63-0) Surface tension 0.021 N/m (25 °C) Methyl Isobutyl Ketone (108-10-1) Surface tension 0.024 N/m (20 °C) Log Koc Koc, 101.85; Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value Ethanol (64-17-5) Surface tension 0.0245 N/m (20 °C) 2,6-Di-tert-butyl-p-cresol (128-37-0) Log Koc Koc, PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value		log Koc,SRC PCKOCVVIN V2.0; 2.38; Calculated Value
Log Koc Koc,PCKOCWIN v1.66; 1; Calculated value 2-Propanol (67-63-0) Surface tension 0.021 N/m (25 °C) Methyl Isobutyl Ketone (108-10-1) Surface tension 0.024 N/m (20 °C) Log Koc Koc,101.85; Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value Ethanol (64-17-5) Surface tension 0.0245 N/m (20 °C) 2,6-Di-tert-butyl-p-cresol (128-37-0) Log Koc Koc,PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value		
2-Propanol (67-63-0) Surface tension 0.021 N/m (25 °C) Methyl Isobutyl Ketone (108-10-1) Surface tension 0.024 N/m (20 °C) Log Koc Koc, 101.85; Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value Ethanol (64-17-5) Surface tension 0.0245 N/m (20 °C) 2,6-Di-tert-butyl-p-cresol (128-37-0) Log Koc Koc, PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value		
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Methyl Isobutyl Ketone (108-10-1) Surface tension 0.024 N/m (20 °C) Log Koc Koc, 101.85; Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value Ethanol (64-17-5) Surface tension 0.0245 N/m (20 °C) 2,6-Di-tert-butyl-p-cresol (128-37-0) Log Koc Koc, PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value		
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Log Koc Koc, 101.85; Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value Ethanol (64-17-5) Surface tension 0.0245 N/m (20 °C) 2,6-Di-tert-butyl-p-cresol (128-37-0) Log Koc Koc, PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value	Methyl Isobutyl Ketone (108-10-1)	
Calculated value Ethanol (64-17-5) Surface tension 0.0245 N/m (20 °C) 2,6-Di-tert-butyl-p-cresol (128-37-0) Log Koc Koc,PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value	Surface tension	0.024 N/m (20 °C)
Surface tension 0.0245 N/m (20 °C) 2,6-Di-tert-butyl-p-cresol (128-37-0) Log Koc Koc,PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value	Log Koc	
Surface tension 0.0245 N/m (20 °C) 2,6-Di-tert-butyl-p-cresol (128-37-0) Log Koc Koc,PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value	Ethanol (64-17-5)	
Log Koc Koc, PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value		0.0245 N/m (20 °C)
Log Koc Koc, PCKOCWIN v1.66; 23030; Calculated value; log Koc; PCKOCWIN v1.66; 4.362; Calculated value	2.6-Di-tert-butyl-p-cresol (128-37-0)	
	Ecology - soil	
12.5. Other adverse effects	,	- ,

12.5. Other adverse effects

Other information : Avoid release to the environment.

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SECTION 13: Disposal considerations

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 waste disposal facility, in accordance with local, regional, national, international regulations.

Additional information : Flammable vapors may accumulate in the container.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

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 (Marine Pollutant- Heptane), Limited Quantity

Special Provisions: N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Aerosols

Flammable, n.o.s. (engine starting fluid) (each not exceeding 1 L capacity)

Class (DOT) : 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115

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

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

Subsidiary risks (IMDG) : Marine Pollutant- Heptane

Air transport

DOT Quantity Limitations Passenger aircraft/rail : Forbidden

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 150 kg

CFR 175.75)

SECTION 15: Regulatory information

15.1. US Federal regulations

POLAR PREMIUM STARTING FLUID 11 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

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Toluene (108-88-3)	
Subject to reporting requirements of United St Listed on the United States TSCA (Toxic Subs Listed on the United States SARA Section 302	stances 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)	
Listed on the United States TSCA (Toxic Subs	stances Control Act) inventory
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
Distillates (Petroleum), Hydrotreated Heavy	Naphthenic (64742-52-5)
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard
Petroleum Gases, Liquefied, Sweetened (68	3476-86-8)
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard Sudden release of pressure hazard
Carbon Dioxide, Liquefied, Under Pressure	(124-38-9)
SARA Section 311/312 Hazard Classes	Sudden release of pressure hazard Immediate (acute) health hazard
Methanol (67-56-1)	
Subject to reporting requirements of United St Listed on the United States TSCA (Toxic Subs Listed on the United States SARA Section 302 Listed on the United States SARA Section 355	stances Control Act) inventory
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Fire hazard
2-Propanol (67-63-0)	
Listed on the United States TSCA (Toxic Subs	tances Control Act) inventory
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard

CANADA

POLAR PREMIUM STARTING FLUID 11	DZ.
WHMIS Classification	Class B Division 5 - Flammable Aerosol Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Toluene (108-88-3)	
Listed on the Canadian DSL (Domestic Sub	estances List)
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - 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
Methanol (67-56-1)	
Listed on the Canadian DSL (Domestic Sub	estances List)
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
2-Propanol (67-63-0)	
Listed on the Canadian DSL (Domestic Sub	estances List)
WHMIS Classification	Class B Division 2 - Flammable Liquid

EU-Regulations

Toluene (108-8	88-3)
Listed on the Ef	EC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Heptane, Bran	nched Cyclic (426260-76-6)

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Methanol (67-56-1)

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

2-Propanol (67-63-0)

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 Repr.Cat.3; R63 F+; R12 Xn; R22

Xn; R22 Xi; R38 R19

Full text of R-phrases: see section 16

15.2.2. National regulations

Heptane, Branched Cyclic (426260-76-6)

All components are either listed on the US TSCA Inventory, or are not regulated under TSCA under 40 CFR 720.30.

Methanol (67-56-1)

Listed on the Canadian IDL (Ingredient Disclosure List)

2-Propanol (67-63-0)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on KECI (Korean Existing Chemicals Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

15.3. US State regulations

13.3. 00 Otate regulations						
POLAR PREMIUM STARTING FLUID 11 OZ.						
U.S California - Proposition 65 - Carcinogens List		No				
U.S California - Proposition 65 - Developmental Toxicity		No				
U.S California - Proposition 65 - Reproductive Toxicity - Female		No				
U.S California - Proposition 65 - Reproductive Toxicity - Male		No				
State or local regulations		U.S California - Proposition 65				
Diethyl Ether (60-29-7)						
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)		
No	Yes	No	No			
Toluene (108-88-3)						
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)		
No	Yes	No	No			
n-Heptane (142-82-5)						
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)		
No	No	No	No			
Heptane, Branched Cyclic (426260-76-6)						
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)		
No	No	No	No			

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Proposition 65 - Carcinogens List No Petroleum Gases, Liquefied, J.S California - Proposition 65 - Carcinogens List No Carbon Dioxide, Liquefied, U J.S California - Proposition 65 - Carcinogens List No Methanol (67-56-1) J.S California - Proposition 65 -	U.S California - Proposition 65 - Developmental Toxicity No Jnder Pressure (124-38-9) U.S California - Proposition 65 - Developmental Toxicity No U.S California -	U.S California - Proposition 65 - Reproductive Toxicity - Female No U.S California - Proposition 65 - Reproductive Toxicity - Female No U.S California - Proposition 65 - Reproductive Toxicity - Female No	U.S California - Proposition 65 - Reproductive Toxicity - Male No U.S California - Proposition 65 - Reproductive Toxicity - Male No U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL) Non-significant risk level (NSRL) Non-significant risk level (NSRL)
Carcinogens List No Petroleum Gases, Liquefied, J.S California - Proposition 65 - Carcinogens List No Carbon Dioxide, Liquefied, U J.S California - Proposition 65 - Carcinogens List No Methanol (67-56-1) J.S California - Proposition 65 -	No , Sweetened (68476-86-8) U.S California - Proposition 65 - Developmental Toxicity No Jnder Pressure (124-38-9) U.S California - Proposition 65 - Developmental Toxicity No U.S California - Control -	Reproductive Toxicity - Female No U.S California - Proposition 65 - Reproductive Toxicity - Female No U.S California - Proposition 65 - Reproductive Toxicity - Female	Reproductive Toxicity - Male No U.S California - Proposition 65 - Reproductive Toxicity - Male No U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk leve (NSRL)
Petroleum Gases, Liquefied, J.S California - Proposition 65 - Carcinogens List No Carbon Dioxide, Liquefied, U J.S California - Proposition 65 - Carcinogens List No Methanol (67-56-1) J.S California - Proposition 65 -	No July - California - Proposition 65 - Developmental Toxicity No July - California - Proposition 65 - Developmental Toxicity No July - California - Proposition 65 - Developmental Toxicity No U.S California -	No U.S California - Proposition 65 - Reproductive Toxicity - Female No U.S California - Proposition 65 - Reproductive Toxicity - Female	Male No U.S California - Proposition 65 - Reproductive Toxicity - Male No U.S California - Proposition 65 - Reproductive Toxicity - Male	(NSRL) Non-significant risk leve
Petroleum Gases, Liquefied, J.S California - Proposition 65 - Carcinogens List Popular	No Jnder Pressure (124-38-9) U.S California - Proposition 65 - Developmental Toxicity No Jnder Pressure (124-38-9) U.S California - Proposition 65 - Developmental Toxicity No U.S California -	U.S California - Proposition 65 - Reproductive Toxicity - Female No U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male No U.S California - Proposition 65 - Reproductive Toxicity - Male	(NSRL) Non-significant risk leve
J.S California - Proposition 65 - Carcinogens List No Carbon Dioxide, Liquefied, U J.S California - Proposition 65 - Carcinogens List No Methanol (67-56-1) J.S California - Proposition 65 -	U.S California - Proposition 65 - Developmental Toxicity No Jnder Pressure (124-38-9) U.S California - Proposition 65 - Developmental Toxicity No U.S California -	Proposition 65 - Reproductive Toxicity - Female No U.S California - Proposition 65 - Reproductive Toxicity - Female	Proposition 65 - Reproductive Toxicity - Male No U.S California - Proposition 65 - Reproductive Toxicity - Male	(NSRL) Non-significant risk leve
Proposition 65 - Carcinogens List No Carbon Dioxide, Liquefied, U J.S California - Proposition 65 - Carcinogens List No Methanol (67-56-1) J.S California - Proposition 65 -	Proposition 65 - Developmental Toxicity No Jnder Pressure (124-38-9) U.S California - Proposition 65 - Developmental Toxicity No U.S California -	Proposition 65 - Reproductive Toxicity - Female No U.S California - Proposition 65 - Reproductive Toxicity - Female	Proposition 65 - Reproductive Toxicity - Male No U.S California - Proposition 65 - Reproductive Toxicity - Male	(NSRL) Non-significant risk leve
Carcinogens List No Carbon Dioxide, Liquefied, U J.S California - Proposition 65 - Carcinogens List No Methanol (67-56-1) J.S California - Proposition 65 -	No Jnder Pressure (124-38-9) U.S California - Proposition 65 - Developmental Toxicity No U.S California -	Reproductive Toxicity - Female No U.S California - Proposition 65 - Reproductive Toxicity - Female	Reproductive Toxicity - Male No U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk leve
No Carbon Dioxide, Liquefied, U J.S California - Proposition 65 - Carcinogens List No Methanol (67-56-1) J.S California - Proposition 65 -	No Jnder Pressure (124-38-9) U.S California - Proposition 65 - Developmental Toxicity No U.S California -	No U.S California - Proposition 65 - Reproductive Toxicity - Female	Male No U.S California - Proposition 65 - Reproductive Toxicity - Male	
Carbon Dioxide, Liquefied, U.J.S California - Proposition 65 - Carcinogens List No Methanol (67-56-1) J.S California - Proposition 65 -	U.S California - Proposition 65 - Developmental Toxicity No U.S California -	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	
J.S California - Proposition 65 - Carcinogens List No Methanol (67-56-1) J.S California - Proposition 65 -	U.S California - Proposition 65 - Developmental Toxicity No U.S California -	Proposition 65 - Reproductive Toxicity - Female	Proposition 65 - Reproductive Toxicity - Male	
Proposition 65 - Carcinogens List No Methanol (67-56-1) J.S California - Proposition 65 -	Proposition 65 - Developmental Toxicity No U.S California -	Proposition 65 - Reproductive Toxicity - Female	Proposition 65 - Reproductive Toxicity - Male	
No Methanol (67-56-1) J.S California - Proposition 65 -	No U.S California -	Reproductive Toxicity - Female	Reproductive Toxicity - Male	(NSRL)
Methanol (67-56-1) J.S California - Proposition 65 -	No U.S California -	Female	Male	
Wethanol (67-56-1) J.S California - Proposition 65 -	U.S California -	No	No	
J.S California - Proposition 65 -			No	
Proposition 65 -				
	Droposition GE	U.S California -	U.S California -	Non-significant risk leve
'arcinogone Liet	Proposition 65 -	Proposition 65 -	Proposition 65 -	(NSRL)
Carcinogens List	Developmental Toxicity	Reproductive Toxicity - Female	Reproductive Toxicity - Male	
No	Yes	No	No	
2-Propanol (67-63-0)				
	U.S California -	U.S California -	U.S California -	Non-significant risk leve
	Proposition 65 -	Proposition 65 -	Proposition 65 -	(NSRL)
Carcinogens List	Developmental Toxicity	Reproductive Toxicity - Female	Reproductive Toxicity - Male	
No	No	No	No	
Methyl Isobutyl Ketone (108-				· ·
	U.S California -	U.S California -	U.S California -	Non-significant risk leve
	Proposition 65 -	Proposition 65 -	Proposition 65 -	(NSRL)
Carcinogens List	Developmental Toxicity	Reproductive Toxicity - Female	Reproductive Toxicity - Male	
Yes	No	No	No	
Ethanol (64-17-5)				
	U.S California -	U.S California -	U.S California -	Non-significant risk leve
	Proposition 65 -	Proposition 65 -	Proposition 65 -	(NSRL)
Carcinogens List	Developmental Toxicity	Reproductive Toxicity - Female	Reproductive Toxicity - Male	
No	No	No	No	
Chloroethane (75-00-3)				
	U.S California -	U.S California -	U.S California -	Non-significant risk leve
	Proposition 65 -	Proposition 65 -	Proposition 65 -	(NSRL)
Carcinogens List	Developmental Toxicity	Reproductive Toxicity - Female	Reproductive Toxicity - Male	
No	No	No	No	
2,6-Di-tert-butyl-p-cresol (12	28-37-0)			
	U.S California -	U.S California -	U.S California -	Non-significant risk leve
Proposition 65 -	Proposition 65 -	Proposition 65 -	Proposition 65 -	(NSRL)
Carcinogens List	Developmental Toxicity	Reproductive Toxicity - Female	Reproductive Toxicity - Male	
No	No	No	No	
Diethyl Ether (60-29-7)				
State or local regulations				

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Toluene (108-88-3)

State or local regulations

U.S. - California - Proposition 65

U.S. - New Jersey - Special Health Hazards Substances List

New Jersey Right-to-Know

U.S. - Massachusetts - Right To Know List

Rhode Island Right to Know

U.S. - Michigan - Critical Materials List

U.S. - New Jersey - Environmental Hazardous Substances List

U.S. - Illinois - Toxic Air Contaminants

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Petroleum Gases, Liquefied, Sweetened (68476-86-8)

State or local regulations

New Jersey Right-to-Know

Minnesota Right-to-Know

Rhode Island Right to Know U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - Massachusetts - Right To Know List

Methanol (67-56-1)

State or local regulations

U.S. - California - Proposition 65

New Jersey Right-to-Know

Florida Right to Know

U.S. - Massachusetts - Right To Know List

U.S. - Pennsylvania - RTK (Right to Know) List

2-Propanol (67-63-0)

State or local regulations

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Methyl Isobutyl Ketone (108-10-1)

State or local regulations

U.S. - California - Proposition 65

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 : None.

Full text of H-phrases:

d of H-philases.	
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
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H370	Causes damage to organs
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

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NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt

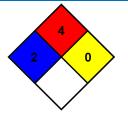
medical attention is given.

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 SDS 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

Disclaimer: The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

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