



# JOHNSEN'S 50% STARTING FLUID 10.7 OZ.

## Safety Data Sheet

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

Issue date: 10/25/2021

Version: 1.1

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

#### 1.1. Product identifier

Product form	: Mixture
Trade name	: JOHNSEN'S 50% STARTING FLUID 10.7 OZ.
Product code	: 6752
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
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#### 1.3. Details of the supplier of the safety data sheet

Technical Chemical Company  
P.O. BOX 139  
Cleburne, Texas 76033  
T 817-645-6088

#### 1.4. Emergency telephone number

Emergency number	: CHEMTREC 24 Hour 1-800-424-9300, 1-703-527-3887 (International)
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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Flammable aerosol Category 1	H222 Extremely flammable aerosol
Gases under pressure Compressed gas	H280 Contains gas under pressure; may explode if heated
Skin corrosion/irritation Category 2	H315 Causes skin irritation
Carcinogenicity Category 2	H351 Suspected of causing cancer
Reproductive toxicity Category 2	H361 Suspected of damaging fertility or the unborn child
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336 May cause drowsiness or dizziness

Full text of H- and EUH-statements: see section 16

#### 2.2. Label elements

##### GHS US labeling

Hazard pictograms (GHS US)



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

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, hot surfaces, sparks, open flames and other ignition sources. 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.  
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.  
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.  
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.

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P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

### 2.3. Other hazards

Other hazards which do not result in 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. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
Diethyl Ether	(CAS-No.) 60-29-7	50 – 70	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 Press. Gas (Comp.), H280
Heptane, Branched Cyclic	(CAS-No.) 426260-76-6	15.264 – 15.9	Flam. Liq. 1, H224 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
n-Heptane	(CAS-No.) 142-82-5	3.975 – 7.155	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	Press. Gas (Comp.), H280
Distillates (Petroleum), Hydrotreated Heavy Naphthenic	(CAS-No.) 64742-52-5	< 1	Asp. Tox. 1, H304

## 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. Suspected of causing cancer. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : 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 : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

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 persists.

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/effects : Suspected of damaging fertility or the unborn child.

Symptoms/effects after inhalation : Shortness of breath. May cause drowsiness or dizziness.

Symptoms/effects after skin contact : Itching. Red skin. Skin rash/inflammation. Causes skin irritation.

Symptoms/effects after eye contact : May cause slight eye irritation . May cause severe irritation. Irritation of the eye tissue. Inflammation/damage of the eye tissue. Redness of the eye tissue.

Symptoms/effects after ingestion : May be harmful if swallowed and enters airways. May be fatal if swallowed and enters airways.

### 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.

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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 product, 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 burn, 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 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 : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Remove contaminated clothes. Always wash hands after handling the product. Separate working clothes from town clothes. Launder separately. 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 : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources. ignition 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

<b>JOHNSEN'S 50% STARTING FLUID 10.7 OZ.</b>	
No additional information available	
<b>Diethyl Ether (60-29-7)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	1200
ACGIH OEL TWA [ppm]	400 ppm

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ACGIH OEL STEL	1500 mg/m <sup>3</sup>
ACGIH OEL STEL [ppm]	500 ppm
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) [1]	1200 mg/m <sup>3</sup>
OSHA PEL (TWA) [2]	400 ppm
<b>n-Heptane (142-82-5)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA [ppm]	400 ppm
ACGIH OEL STEL [ppm]	500 ppm
<b>Heptane, Branched Cyclic (426260-76-6)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA [ppm]	400 ppm
ACGIH OEL STEL [ppm]	500 ppm
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) [2]	500 ppm
<b>Distillates (Petroleum), Hydrotreated Heavy Naphthenic (64742-52-5)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	5 mg/m <sup>3</sup> MIST 8 HOURS
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) [1]	5 mg/m <sup>3</sup> MIST 8 HOURS
<b>Petroleum Gases, Liquefied, Sweetened (68476-86-8)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA [ppm]	1000 ppm Listed under Aliphatic hydrocarbon gases alkane C1-C4
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) [1]	1800 mg/m <sup>3</sup>
OSHA PEL (TWA) [2]	1000 ppm
<b>USA - NIOSH - Occupational Exposure Limits</b>	
NIOSH REL (TWA)	1800 mg/m <sup>3</sup>
NIOSH REL TWA [ppm]	1000 ppm
<b>Carbon Dioxide, Liquefied, Under Pressure (124-38-9)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	9000 mg/m <sup>3</sup>
ACGIH OEL TWA [ppm]	5000 ppm
ACGIH OEL STEL	54000
ACGIH OEL STEL [ppm]	30000 ppm
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) [1]	9000 mg/m <sup>3</sup>
OSHA PEL (TWA) [2]	5000 ppm
<b>USA - NIOSH - Occupational Exposure Limits</b>	
NIOSH REL (TWA)	9000 mg/m <sup>3</sup>
NIOSH REL TWA [ppm]	5000 ppm
NIOSH REL (Ceiling)	54000 mg/m <sup>3</sup>
NIOSH REL C [ppm]	30000 ppm

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Local exhaust ventilation, vent hoods . Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Gloves. Safety glasses. Avoid all unnecessary exposure.

#### Materials for protective clothing:

GIVE EXCELLENT RESISTANCE:

#### Hand protection:

Wear protective gloves

#### Eye protection:

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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

### Personal protective equipment symbol(s):



### 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	: Liquid.
Color	: Colourless to light yellow.
Odor	: Ether-like odour.
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
Boiling point	: -31.1 °C (Lowest Component)
Flash point	: -96.23 °C (Lowest Component)
Auto-ignition temperature	: 180 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Poorly soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Heating may cause a fire or explosion.
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.

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### 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 (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

Diethyl Ether (60-29-7)	
LD50 oral rat	1600 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 7 day(s))
LD50 dermal rabbit	> 20000 mg/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	97 mg/l (4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
LC50 Inhalation - Rat [ppm]	32000 ppm (4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
ATE US (oral)	1600 mg/kg body weight
ATE US (vapors)	97 mg/l/4h
ATE US (dust, mist)	97 mg/l/4h

n-Heptane (142-82-5)	
LD50 oral rat	> 5000 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 29.29 mg/l/4h (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))

Heptane, Branched Cyclic (426260-76-6)	
LD50 oral rat	> 5000 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 29.29 mg/l/4h (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))

Distillates (Petroleum), Hydrotreated Heavy Naphthenic (64742-52-5)	
LD50 oral rat	> 5000 mg/kg body weight

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.

Distillates (Petroleum), Hydrotreated Heavy Naphthenic (64742-52-5)	
IARC group	3 - Not classifiable

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

STOT-single exposure : May cause drowsiness or dizziness.

Diethyl Ether (60-29-7)	
STOT-single exposure	May cause drowsiness or dizziness.

n-Heptane (142-82-5)	
STOT-single exposure	May cause drowsiness or dizziness.

Heptane, Branched Cyclic (426260-76-6)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified  
Viscosity, kinematic : No data available

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Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects	: Suspected of damaging fertility or the unborn child.
Symptoms/effects after inhalation	: Shortness of breath. May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Itching. Red skin. Skin rash/inflammation. Causes skin irritation.
Symptoms/effects after eye contact	: May cause slight eye irritation . May cause severe irritation. Irritation of the eye tissue. Inflammation/damage of the eye tissue. Redness of the eye tissue.
Symptoms/effects after ingestion	: May be harmful if swallowed and enters airways. May be fatal if swallowed and enters airways.

## SECTION 12: Ecological information

### 12.1. Toxicity

Diethyl Ether (60-29-7)	
LC50 - Fish [1]	2560 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 - Crustacea [1]	1380 mg/l (NEN 6501: Water - Determination of toxicity with Daphnia magna, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)	
LC50 - Fish [1]	35 mg/l (96 h, Salmo gairdneri, Literature study, Lethal)

### 12.2. Persistence and degradability

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Persistence and degradability	Not established.

Diethyl Ether (60-29-7)	
Persistence and degradability	Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.03 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.026 g O <sub>2</sub> /g substance (KMnO <sub>4</sub> )
ThOD	2.6 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.012

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. Not established.
Biochemical oxygen demand (BOD)	1.92 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.06 g O <sub>2</sub> /g substance
ThOD	3.52 g O <sub>2</sub> /g substance

Heptane, Branched Cyclic (426260-76-6)	
Persistence and degradability	May cause long-term adverse effects in the environment.

Distillates (Petroleum), Hydrotreated Heavy Naphthenic (64742-52-5)	
Persistence and degradability	Not established.

Petroleum Gases, Liquefied, Sweetened (68476-86-8)	
Persistence and degradability	Not established.

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

### 12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.

Diethyl Ether (60-29-7)	
BCF - Fish [1]	2 l/kg (QSAR)
Partition coefficient n-octanol/water (Log Pow)	0.82 – 0.89 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

n-Heptane (142-82-5)	
BCF - Other aquatic organisms [1]	552 (BCFBAF v3.00, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	4.66 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation (4 ≥ Log Kow ≤ 5). Not established.

Heptane, Branched Cyclic (426260-76-6)	
Bioaccumulative potential	Not established.



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<b>Distillates (Petroleum), Hydrotreated Heavy Naphthenic (64742-52-5)</b>	
Bioaccumulative potential	Not established.
<b>Petroleum Gases, Liquefied, Sweetened (68476-86-8)</b>	
Bioaccumulative potential	Not established.
<b>Carbon Dioxide, Liquefied, Under Pressure (124-38-9)</b>	
Partition coefficient n-octanol/water (Log Pow)	0.83 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.

### 12.4. Mobility in soil

<b>Diethyl Ether (60-29-7)</b>	
Surface tension	0.017 N/m (20 °C)
Partition coefficient n-octanol/water (Log Koc)	0.99 – 1.42 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Highly mobile in soil.
<b>n-Heptane (142-82-5)</b>	
Surface tension	19.66 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.38 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for adsorption in soil.
<b>Carbon Dioxide, Liquefied, Under Pressure (124-38-9)</b>	
Ecology - soil	Not applicable (gas).

### 12.5. Other adverse effects

Effect on global warming : No known effects from this product.

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging 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

### Department of Transportation (DOT)

In accordance with DOT

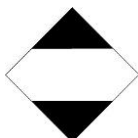
US DOT (ground) (DOT) : UN1950 Aerosols (Flammable, n.o.s. (engine starting fluid) (each not exceeding 1 L capacity)), 2.1

UN-No.(DOT) : UN1950

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) : LTD QTY - Limited quantity



DOT Packaging Non Bulk (49 CFR 173.xxx) : 304

DOT Packaging Bulk (49 CFR 173.xxx) : None

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 Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : Forbidden

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

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



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Other information : No supplementary information available.

### Transport by sea

UN-No. (IMDG) : UN1950, Aerosol, 2.1, (Marine Pollutant- Heptane), LTD. QTY.  
Class (IMDG) : 2.1 - Flammable gases

### Air transport

UN-No. (IATA) : 1950  
Proper Shipping Name (IATA) : Aerosols  
Class (IATA) : 2.1 - Gases : Flammable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

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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)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
CERCLA RQ	100 lb
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard
n-Heptane (142-82-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Heptane, Branched Cyclic (426260-76-6)	
Listed on the United States TSCA (Toxic Substances 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)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard
Petroleum Gases, Liquefied, Sweetened (68476-86-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
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)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Sudden release of pressure hazard Immediate (acute) health hazard

### 15.2. International regulations

#### CANADA

JOHNSEN'S 50% STARTING FLUID 10.7 OZ.	
WHMIS Classification	Class B Division 5 - Flammable Aerosol
Diethyl Ether (60-29-7)	
Listed on the Canadian DSL (Domestic Substances List)	
n-Heptane (142-82-5)	
Listed on the Canadian DSL (Domestic Substances List)	
Heptane, Branched Cyclic (426260-76-6)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Distillates (Petroleum), Hydrotreated Heavy Naphthenic (64742-52-5)	
Listed on the Canadian DSL (Domestic Substances List)	

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

Listed on the Canadian DSL (Domestic Substances List)

### Carbon Dioxide, Liquefied, Under Pressure (124-38-9)

Listed on the Canadian DSL (Domestic Substances List)

## EU-Regulations

### n-Heptane (142-82-5)

### Heptane, Branched Cyclic (426260-76-6)

### Distillates (Petroleum), Hydrotreated Heavy Naphthenic (64742-52-5)

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

### Carbon Dioxide, Liquefied, Under Pressure (124-38-9)

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

Not classified

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

### 15.2.2. National regulations

### n-Heptane (142-82-5)

### Heptane, Branched Cyclic (426260-76-6)

### Distillates (Petroleum), Hydrotreated Heavy Naphthenic (64742-52-5)

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

### Carbon Dioxide, Liquefied, Under Pressure (124-38-9)

## 15.3. US State regulations

### JOHNSEN'S 50% STARTING FLUID 10.7 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	No significant risk level (NSRL)
Yes	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	No 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	No significant risk level (NSRL)
No	No	No	No	

### Distillates (Petroleum), Hydrotreated Heavy Naphthenic (64742-52-5)

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	No significant risk level (NSRL)
No	No	No	No	

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Petroleum Gases, Liquefied, Sweetened (68476-86-8)				
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	No significant risk level (NSRL)
No	No	No	No	

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)				
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	No significant risk level (NSRL)
No	No	No	No	

Diethyl Ether (60-29-7)
<b>State or local regulations</b>
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New York City - Right to Know Hazardous Substances List U.S. - Pennsylvania - RTK (Right to Know) List

n-Heptane (142-82-5)
<b>State or local regulations</b>
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New York City - Right to Know Hazardous Substances List U.S. - Pennsylvania - RTK (Right to Know) List

Carbon Dioxide, Liquefied, Under Pressure (124-38-9)
<b>State or local regulations</b>
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New York City - Right to Know Hazardous Substances List U.S. - Pennsylvania - RTK (Right to Know) List

### SECTION 16: Other information

Other information : None.

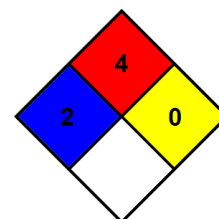
Full text of H-phrases:

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
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
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 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 4 - Materials that rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and burn readily.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



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### Hazard Rating

Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	: 4 Severe Hazard
Physical	: 1 Slight Hazard
Personal protection	: B

*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. Published by Ruben Morales*