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		Revision Date: 09/09/2014
<b>SAFETY DATA SHEET</b>		Print Date: 06/16/2015
Pyroil™ PREMIUM STARTING FLUID		MSDS Number: R0340955
PYSFP11		Version: 1.0

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Pyroil™ PREMIUM STARTING FLUID

Product code : PYSFP11

Company : Ashland  
United States of America  
Columbus, OH 43216  
  
P.O. Box 2219

E-mail address : EHS Customer Requests@ashland.com

Telephone : 614-790-3333

Telefax :

Emergency telephone number : 1-800-ASHLAND (1-800-274-5263)

## 2. HAZARDS IDENTIFICATION

### GHS Classification

Aerosols : Category 1  
 Acute toxicity (Oral) : Category 4  
 Skin corrosion/irritation : Category 3  
 Carcinogenicity : Category 2  
 Reproductive toxicity : Category 2  
 Specific target organ toxicity - single exposure : Category 3 (Central nervous system)  
 Aspiration hazard : Category 1  
 Acute aquatic toxicity : Category 2  
 Chronic aquatic toxicity : Category 2

### GHS-Labeling

Hazard pictograms : 

Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.  
 H229 Pressurised container: May burst if heated.  
 H302 Harmful if swallowed.  
 H304 May be fatal if swallowed and enters airways.  
 H316 Causes mild skin irritation.  
 H336 May cause drowsiness or dizziness.  
 H351 Suspected of causing cancer.

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H361d Suspected of damaging the unborn child.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

: **Prevention:**

P201 Obtain special instructions before use.  
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 Do not pierce or burn, even after use.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.  
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P331 Do NOT induce vomiting.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P391 Collect spillage.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Static Accumulator

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#### Hazardous components

Chemical Name	CAS-No.	Concentration
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64742-89-8	>=50 - <70 %
ETHYL ETHER	60-29-7	>=20 - <30 %
n-HEPTANE	142-82-5	>=1 - <10 %
CARBON DIOXIDE	124-38-9	>=1 - <10 %
ETHANOL	64-17-5	>=1 - <10 %
ETHYL CHLORIDE	75-00-3	>=0,1 - <1 %
TOLUENE	108-88-3	>=0,1 - <1 %

#### 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.
- First aid measures for different exposure routes
- In case of eye contact : Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.  
Remove contact lenses.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off immediately with plenty of water.
- If inhaled : Move to fresh air.  
Consult a physician after significant exposure.  
Call a physician or poison control centre immediately.  
Keep patient warm and at rest.  
If unconscious place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
If breathing is irregular or stopped, administer artificial respiration.  
In case of shortness of breath, give oxygen.
- If swallowed : Do not induce vomiting without medical advice.  
Never give anything by mouth to an unconscious person.  
Consult a physician if necessary.
- Most important symptoms and effects, both acute and delayed (old) : Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:  
stomach or intestinal upset (nausea, vomiting, diarrhea)  
irritation (nose, throat, airways)  
Cough  
central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects  
temporary changes in mood and behavior

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loss of appetite  
 Lack of coordination  
 confusion  
 irregular heartbeat  
 narcosis (dazed or sluggish feeling)  
 respiratory failure  
 coma  
 Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.  
 This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting.

Notes to physician (old) : Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.

## 5. FIREFIGHTING MEASURES

Suitable extinguishing media : ABC powder  
 Water mist

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Aldehydes  
 carbon dioxide and carbon monoxide  
 formaldehyde-like  
 Hydrocarbons  
 organic compounds

Specific extinguishing methods : Use water spray to cool unopened containers.  
 Prevent fire extinguishing water from contaminating surface water or the ground water system.  
 Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
 For safety reasons in case of fire, cans should be stored separately in closed containments.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
 Use personal protective equipment.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.  
 Beware of vapours accumulating to form explosive

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concentrations. Vapours can accumulate in low areas.  
Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks).  
Evacuate personnel to safe areas.

- Environmental precautions : Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Suppress (knock down) gases/vapours/mists with a water spray jet.  
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
- Keep in suitable, closed containers for disposal.
- Additional advice : Comply with all applicable federal, state, and local regulations.

## 7. HANDLING AND STORAGE

### Handling

- Technical measures : Use explosion-proof equipment.  
Take measures to prevent the build up of electrostatic charge.  
Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.  
Keep product and empty container away from heat and sources of ignition.  
No sparking tools should be used.

- Advice on safe handling : Open drum carefully as content may be under pressure.  
Do not breathe vapours or spray mist.  
For personal protection see section 8.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Avoid exceeding the given occupational exposure limits (see section 8).  
Smoking, eating and drinking should be prohibited in the application area.  
Ensure all equipment is electrically grounded and bonded before beginning transfer operations.

- Avoidance of contact : Acids  
Alkali metals  
Ammonia  
Bases  
halogens  
inorganic materials  
Oxidizing agents  
sodium  
Sulphur compounds

### Storage

- Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force

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or throw into fire even after use. Do not spray on flames or red-hot objects.  
Store in original container.  
Keep containers tightly closed in a dry, cool and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Acids, Alkali metals, Ammonia, Bases, halogens, inorganic materials, Oxidizing agents, sodium, Sulphur compounds

Other data : Stable under recommended storage conditions.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value (Form of exposure)	Control parameters / Permissible concentration	Basis
ETHYL ETHER	60-29-7	STEL	500 ppm	UY OEL
ETHYL ETHER	60-29-7	TWA	400 ppm	UY OEL
ETHYL ETHER	60-29-7	TWA	400 ppm	PY OEL
ETHYL ETHER	60-29-7	STEL	500 ppm	PY OEL
ETHYL ETHER	60-29-7	TWA	400 ppm	EC OEL
ETHYL ETHER	60-29-7	STEL	500 ppm	EC OEL
ETHYL ETHER	60-29-7	TWA	400 ppm	CR OEL
ETHYL ETHER	60-29-7	STEL	500 ppm	CR OEL
n-HEPTANE	142-82-5	STEL	500 ppm	UY OEL
n-HEPTANE	142-82-5	TWA	400 ppm	UY OEL
n-HEPTANE	142-82-5	TWA	400 ppm	PY OEL
n-HEPTANE	142-82-5	STEL	500 ppm	PY OEL
n-HEPTANE	142-82-5	TWA	400 ppm	EC OEL
n-HEPTANE	142-82-5	STEL	500 ppm	EC OEL
n-HEPTANE	142-82-5	TWA	400 ppm	CR OEL
n-HEPTANE	142-82-5	STEL	500 ppm	CR OEL
n-HEPTANE	142-82-5	TWA	400 ppm	NI OEL
n-HEPTANE	142-82-5	STEL	500 ppm	NI OEL
n-HEPTANE	142-82-5	TWA	400 ppm	DO OEL
n-HEPTANE	142-82-5	STEL	500 ppm	DO OEL
CARBON DIOXIDE	124-38-9	STEL	30,000 ppm	UY OEL
CARBON DIOXIDE	124-38-9	TWA	5,000 ppm	UY OEL
CARBON DIOXIDE	124-38-9	TWA	5,000 ppm	PY OEL
CARBON DIOXIDE	124-38-9	STEL	30,000 ppm	PY OEL
CARBON DIOXIDE	124-38-9	TWA	5,000 ppm	EC OEL
CARBON DIOXIDE	124-38-9	STEL	30,000 ppm	EC OEL
CARBON DIOXIDE	124-38-9	TWA	5,000 ppm	CR OEL
CARBON DIOXIDE	124-38-9	STEL	30,000 ppm	CR OEL

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CARBON DIOXIDE	124-38-9	TWA	5,000 ppm	NI OEL
CARBON DIOXIDE	124-38-9	STEL	30,000 ppm	NI OEL
CARBON DIOXIDE	124-38-9	TWA	5,000 ppm	DO OEL
CARBON DIOXIDE	124-38-9	STEL	30,000 ppm	DO OEL
ETHANOL	64-17-5	STEL	1,000 ppm	UY OEL
ETHANOL	64-17-5	STEL	1,000 ppm	PY OEL
ETHANOL	64-17-5	STEL	1,000 ppm	EC OEL
ETHANOL	64-17-5	STEL	1,000 ppm	CR OEL
ETHANOL	64-17-5	CMP	1,000 ppm	AR OEL
ETHANOL	64-17-5	STEL	1,000 ppm	CO OEL
ETHANOL	64-17-5	TWA	1,000 ppm 1,884 mg/m3	PE OEL
ETHANOL	64-17-5	STEL	1,000 ppm	NI OEL
ETHANOL	64-17-5	STEL	1,000 ppm	DO OEL
ETHYL CHLORIDE	75-00-3	TWA	100 ppm	UY OEL
ETHYL CHLORIDE	75-00-3	TWA	100 ppm	PY OEL
ETHYL CHLORIDE	75-00-3	TWA	100 ppm	EC OEL
ETHYL CHLORIDE	75-00-3	TWA	100 ppm	CR OEL
ETHYL CHLORIDE	75-00-3	CMP	100 ppm	AR OEL
ETHYL CHLORIDE	75-00-3	TWA	100 ppm	CO OEL
ETHYL CHLORIDE	75-00-3	TWA	100 ppm 264 mg/m3	PE OEL
ETHYL CHLORIDE	75-00-3	TWA	100 ppm	NI OEL
ETHYL CHLORIDE	75-00-3	TWA	100 ppm	DO OEL
TOLUENE	108-88-3	TWA	20 ppm	UY OEL
TOLUENE	108-88-3	TWA	20 ppm	PY OEL
TOLUENE	108-88-3	TWA	20 ppm	EC OEL
TOLUENE	108-88-3	TWA	20 ppm	CR OEL
TOLUENE	108-88-3	TWA	20 ppm	NI OEL
TOLUENE	108-88-3	TWA	20 ppm	DO OEL

#### US. ACGIH Threshold Limit Values

Components	CAS-No.	Value (Form of exposure)	Control parameters / Permissible concentration	Basis
ETHYL ETHER	60-29-7	TWA	400 ppm	ACGIH
ETHYL ETHER	60-29-7	STEL	500 ppm	ACGIH
n-HEPTANE	142-82-5	TWA	400 ppm	ACGIH
n-HEPTANE	142-82-5	STEL	500 ppm	ACGIH
CARBON DIOXIDE	124-38-9	TWA	5,000 ppm	ACGIH
CARBON DIOXIDE	124-38-9	STEL	30,000 ppm	ACGIH
ETHANOL	64-17-5	STEL	1,000 ppm	ACGIH
ETHYL CHLORIDE	75-00-3	TWA	100 ppm	ACGIH
TOLUENE	108-88-3	TWA	20 ppm	ACGIH

#### Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Concentration	Basis
TOLUENE	108-88-3	Hippuric acid	Creatinine in urine	EOS	1.6 g/g	AR IBE

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Remarks: Background, Nonspecific						
TOLUENE	108-88-3	toluene	Blood	PSW	0.05 mg/l	AR IBE
TOLUENE	108-88-3	o-cresol	Urine	EOS	0.5 mg/l	AR IBE
Remarks: Background						
TOLUENE	108-88-3	Hippuric acid	Creatinine in urine	EOS	1.6 g/g	UY BEI
Remarks: Semiannual						
TOLUENE	108-88-3	o-cresol	Urine	EOS	0.5 mg/l	UY BEI

#### Biological occupational exposure limits - ACGIH

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Concentration	Basis
TOLUENE	108-88-3	o-Cresol, with hydrolysis	Creatinine in urine	EOS	0.3 mg/g	ACGIH BEL
Remarks: Background						
TOLUENE	108-88-3	toluene	Urine	EOS	0.03 mg/l	ACGIH BEL
TOLUENE	108-88-3	toluene	Blood	PSW	0.02 mg/l	ACGIH BEL

**Engineering measures** : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).

#### Personal protective equipment

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Eye protection : Safety glasses with side-shields

Hand protection : Wear resistant gloves such as:

Material : polyvinyl alcohol

Nitrile rubber

Skin and body protection : Wear as appropriate:  
Safety shoes  
Flame-resistant clothing

Hygiene measures : Keep away from food, drink and animal feedingstuffs.  
When using do not eat, drink or smoke.  
Ensure that eyewash stations and safety showers are close to the workstation location.



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Appearance	: aerosol
Colour	: colourless
Odour	: ether-like
pH	: No data available
Freezing point	: No data available
Boiling point	: 34.6 °C (1,013.232 hPa) Calculated Phase Transition Liquid/Gas
Flash point	: -45 °C Calculated Flash Point
Upper explosion limit	: 36.5 %(V) Calculated Explosive Limit
Lower explosion limit	: 1.05 %(V) Calculated Explosive Limit
Vapour pressure	: 717.2616 hPa (25 °C) Calculated Vapor Pressure
Density	: 0.706 g/cm3 (15.56 °C)
Solubility(ies)	
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available

## 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	: Stable under recommended storage conditions.  Hazardous polymerisation does not occur.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Acids Alkali metals Ammonia Bases halogens inorganic materials Oxidizing agents sodium

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#### Sulphur compounds

Hazardous decomposition products : Aldehydes  
carbon dioxide and carbon monoxide  
formaldehyde-like  
Hydrocarbons  
organic compounds

## 11. TOXICOLOGICAL INFORMATION

### Product

Acute oral toxicity : No data available

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

Skin corrosion/irritation : No data available

Serious eye damage/eye irritation : No data available

Respiratory or skin sensitisation : No data available

Aspiration toxicity : The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

### Components:

#### **SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC:**

Acute oral toxicity : LD 50 Rat: > 8,000 mg/kg

Acute inhalation toxicity : LC 50 Rat: 3400 ppm  
Exposure time: 4 h  
Test atmosphere: vapour

Acute dermal toxicity : LD 50 Rat: > 4,000 mg/kg

Aspiration toxicity : May be fatal if swallowed and enters airways.

#### **ETHYL ETHER:**

Acute oral toxicity : LD50 Rat: 1,200 - 1,700 mg/kg

Acute inhalation toxicity : LC 50 Rat: 32,000 mg/l  
Exposure time: 4 h

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STOT - single exposure : Assessment: May cause drowsiness or dizziness.

**n-HEPTANE:**

Acute oral toxicity : LD 50 Rat: Expected > 5,000 mg/kg  
Information given is based on data obtained from similar substances.

Acute inhalation toxicity : LC 50 Rat, male and female: > 29.29 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: OECD Test Guideline 403  
No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD 50 Rabbit: Expected > 2,000 mg/kg  
Not classified as acutely toxic by dermal absorption under GHS.  
Information given is based on data obtained from similar substances.

Respiratory or skin sensitisation : Test Method: Maximisation Test (GPMT)  
Species: Guinea pig  
Result: Did not cause sensitisation on laboratory animals.  
Information given is based on data obtained from similar substances.

**Germ cell mutagenicity**

Genotoxicity in vitro : Type: Chromosome aberration test in vitro  
Test species: rat hepatocytes  
Result: negative  
Method: OECD Test Guideline 473

: Type: Ames test  
Result: negative  
Method: OECD Test Guideline 471

STOT - single exposure : Assessment: May cause drowsiness or dizziness.

Aspiration toxicity : May be fatal if swallowed and enters airways.

**ETHANOL:**

Acute oral toxicity : LD 50 Rat: 7,060 mg/kg

Acute inhalation toxicity : LC 50 Rat: 117 - 125 mg/l  
Exposure time: 4 h

LC 50 Mouse: 39 mg/l  
Exposure time: 4 h

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Acute dermal toxicity : LD Lo Rabbit: 20 g/kg

**ETHYL CHLORIDE:**

Acute inhalation toxicity : LC 50 Rat: > 19000 ppm  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: OECD Test Guideline 403

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies

**TOLUENE:**

Acute oral toxicity : LD 50 Rat: > 5,000 mg/kg

Acute inhalation toxicity : LC 50 Rat: 8000 ppm  
Exposure time: 4 h

Acute dermal toxicity : LD 50 Rabbit: 12,124 mg/kg

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Product:**

No data available

**Components:**

**n-HEPTANE:**

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (Daphnia magna)): 1.5 mg/l  
Exposure time: 48 h  
Test Method: static test

LC 50 (Mysidopsis bahia (opossum shrimp)): 0.1 mg/l  
Exposure time: 96 h  
Test Method: semi-static test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR: 1 mg/l  
Exposure time: 21 d  
Species: Water flea (Daphnia magna)  
Test Method: static test  
Test substance: WAF  
Method: OECD Test Guideline 211  
Information given is based on data obtained from similar substances.

### Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

**ETHANOL:**

Toxicity to fish : LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss)): 12,000 - 16,000 mg/l  
Exposure time: 96 h  
Test Method: static test

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (Daphnia magna)): > 10,000 mg/l  
Exposure time: 48 h  
Test Method: static test

**ETHYL CHLORIDE:**

Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (Daphnia magna)): 58 mg/l  
Exposure time: 48 h  
Test Method: static test  
Method: Directive 67/548/EEC, Annex V, C.2.

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 118 mg/l  
Exposure time: 72 h  
Test Method: static test  
Method: Directive 67/548/EEC, Annex V, C.3.

**TOLUENE:**

Toxicity to fish : LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss)): 5.8 mg/l  
Exposure time: 96 h  
Test Method: Renewal  
  
LC 50 (Fathead minnow (Pimephales promelas)): 12.6 mg/l  
Exposure time: 96 h  
Test Method: static test

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (Daphnia magna)): 6 mg/l  
Exposure time: 48 h  
Test Method: static test

**Persistence and degradability**

**Product:**

No data available

**Components:**

**n-HEPTANE:**

Biodegradability : Result: Readily biodegradable.

**ETHYL CHLORIDE:**

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Biodegradability : activated sludge  
Result: Not readily biodegradable.  
Biodegradation: 0 %  
Exposure time: 28 d  
Method: Directive 67/548/EEC Annex V, C.4.E.

#### Bioaccumulative potential

##### Product:

No data available

##### Components:

##### **ETHYL ETHER:**

Partition coefficient: n-octanol/water : log Pow: 0.89

##### **n-HEPTANE:**

Partition coefficient: n-octanol/water : log Pow: 4.66

##### **ETHANOL:**

Partition coefficient: n-octanol/water : log Pow: -0.31

##### **ETHYL CHLORIDE:**

Partition coefficient: n-octanol/water : log Pow: 1.43

##### **TOLUENE:**

Bioaccumulation : Species: Ide, silver or golden orfe (Leuciscus idus)  
Exposure time: 3 d  
Concentration: 0.05 mg/l  
Bioconcentration factor (BCF): 94  
Method: Not reported

Partition coefficient: n-octanol/water : log Pow: 2.73

#### Mobility in soil

##### Product:

No data available

##### Components:

##### **ETHYL ETHER:**

Surface tension : 17.06 mN/m

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**CARBON DIOXIDE:**

Surface tension : 16.2 mN/m

**ETHANOL:**

Surface tension : 22.75 mN/m

**ETHYL CHLORIDE:**

Surface tension : 19.5 mN/m

**TOLUENE:**

Surface tension : 28.93 mN/m

**Other adverse effects**

**Product:**

Ozone-Depletion Potential : No data available

**Components:**

No data available

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**13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues : Dispose of in accordance with the European Directives on waste and hazardous waste.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Container hazardous when empty.

Dispose of in accordance with local regulations.

Contaminated packaging : Empty remaining contents.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.  
Do not burn, or use a cutting torch on, the empty drum.

**DISPOSAL CONSIDERATIONS**

Dispose of in accordance with local regulations.

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**14. TRANSPORT INFORMATION**

**International transport regulations  
REGULATION**

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ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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#### INTERNATIONAL MARITIME DANGEROUS GOODS

UN	1950	AEROSOLS	2.1		MARINE POLLUTANT: (ALIPHATIC PETROLEUM NAPHTHA) LIMITED QUANTITY
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#### INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	1950	Aerosols, flammable (engine starting fluid)	2.1		
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#### INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	1950	Aerosols, flammable (engine starting fluid)	2.1		
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\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant	yes
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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

## 15. REGULATORY INFORMATION

### Other international regulations

#### Notification status

US. Toxic Substances Control Act	: y (positive listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	: y (positive listing)
Australia. Industrial Chemical (Notification and Assessment) Act	: y (positive listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	: y (positive listing)
Japan. Kashin-Hou Law List	: n (Negative listing)
Korea. Toxic Chemical Control Law (TCCL) List	: y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	: y (positive listing)
China. Inventory of Existing Chemical Substances	: y (positive listing)

## 16. OTHER INFORMATION

### Further information



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Other information : The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists  
 BEI : Biological Exposure Index  
 CAS : Chemical Abstracts Service (Division of the American Chemical Society).  
 CMR : Carcinogenic, Mutagenic or Toxic for Reproduction  
 FG : Food grade  
 GHS : Globally Harmonized System of Classification and Labeling of Chemicals.  
 H-statement : Hazard Statement  
 IATA : International Air Transport Association.  
 IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization  
 ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"  
 IMDG : International Maritime Code for Dangerous Goods  
 ISO : International Organization for Standardization  
 logPow : octanol-water partition coefficient  
 LCxx : Lethal Concentration, for xx percent of test population  
 LDxx : Lethal Dose, for xx percent of test population.  
 ICxx : Inhibitory Concentration for xx of a substance  
 Ecxx : Effective Concentration of xx  
 N.O.S.: Not Otherwise Specified  
 OECD : Organization for Economic Co-operation and Development  
 OEL : Occupational Exposure Limit  
 P-Statement : Precautionary Statement  
 PBT : Persistent , Bioaccumulative and Toxic  
 PPE : Personal Protective Equipment  
 STEL : Short-term exposure limit  
 STOT : Specific Target Organ Toxicity  
 TLV : Threshold Limit Value  
 TWA : Time-weighted average  
 vPvB : Very Persistent and Very Bioaccumulative  
 WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act  
 DOT : Department of Transportation  
 FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act  
 HMIRC : Hazardous Materials Information Review Commission  
 HMIS : Hazardous Materials Identification System  
 NFPA : National Fire Protection Association  
 NIOSH : National Institute for Occupational Safety and Health  
 OSHA : Occupational Safety and Health Administration  
 PMRA : Health Canada Pest Management Regulatory Agency  
 RTK : Right to Know  
 WHMIS : Workplace Hazardous Materials Information System