Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 Regulations
Trade name: Engine Priming Fuel

SDS

1 Identification

Product identifier
Trade name: ENGINE PRIMING FUEL
Other means of identification: No other identifiers
Recommended use and restriction on use
· **Recommended use:** Fuel
· **Restrictions on use:** Contact manufacturer/supplier
24-Hour Emergency telephone number:
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)

Details of the supplier of the Safety Data Sheet
Manufacturer/Supplier:
KBi/Kold-Ban International, Ltd.
8390 Pingree Road
Lake In The Hills, IL 60156 USA
Phone: (847) 658-8561

2 Hazard(s) Identification

Classification of the substance or mixture
According to REACH regulation (EC 1907/2006, Art 31) and to OSHA regulation (29 CFR 1910.1200), KBi's engine priming fuel is an ARTICLE and is not covered by legal requirements to generate and supply an SDS or an MSDS. This Product Information Sheet is provided solely as an information document for the purpose of assisting our customers.
Flam. Gas 1 H220 Extremely flammable gas.
Press. Gas H280 Contains gas under pressure; may explode if heated.
Acute Tox. 4 H302 Harmful if swallowed.
Carc. 2 H351 Suspected of causing cancer.
Repr. 2 H361 Suspected of damaging fertility or the unborn child.
STOT SE 3 H336 May cause drowsiness or dizziness.
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Label elements
· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms:**

GHS02 GHS04 GHS07 GHS08

· **Signal word:** Danger
· **Hazard statements:**
H220 Extremely flammable gas.
H280 Contains gas under pressure; may explode if heated.
H302 Harmful if swallowed.
H351 Suspected of causing cancer.
H361 Suspected of damaging fertility or the unborn child.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.

· **Precautionary statements:**
P201 Obtain special instructions before use.
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.
P261 Avoid breathing vapors.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves and eye protection.
P301+P310 If swallowed: Immediately call a poison center/doctor.
P330 Rinse mouth.
P331 Do NOT induce vomiting.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 Eliminate all ignition sources if safe to do so.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P410 Protect from sunlight.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards:** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

CAS No.	Hazardous Ingredient	Hazard Classfication	% wt.
60-29-7	diethyl ether	Flam. Liq. 1, H224 Acute Tox. 4, H302; STOT SE 3, H336	55-65%
64742-49-0	Naphtha (petroleum), hydrotreated light	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336	20-30%
124-38-9	Carbon dioxide	Press. Gas, H280	10-15%
64-17-5	Ethanol	Flam. Liq. 2, H225 Eye Irrit. 2A, H319	<5%
75-00-3	Chloroethane	Flam. Gas 1, H220; Flam. Liq. 1, H224 Press. Gas, H280 Carc. 2, H351	<2%
64742-53-6	Distillates (petroleum), hydrotreated light naphthenic	Asp. Tox. 1, H304	<1%
108-88-3	Toluene	Flam. Liq. 2, H225 Repr. 2, H361; STOT RE 2, H373; Asp. Tox. 1, H304 Skin Irrit. 2, H315; STOT SE 3, H336	<0.5%

· **Additional information:** For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

Description of first aid measures

· **General information:**
Take affected persons out into the fresh air.
Do not leave affected persons unattended.

· **After inhalation:**
Supply fresh air; consult doctor in case of complaints. Provide oxygen treatment if affected person has difficulty breathing. In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After skin contact:**
In cases of frostbite, rinse with plenty of water. Do not remove clothing. Seek immediate medical advice.

· **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**
Unlikely route of exposure. Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**
Breathing difficulty
Coughing
Dizziness
Disorientation
Unconsciousness

· **Danger:**
Danger of pulmonary edema.
Danger of impaired breathing.
Harmful if swallowed.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
Suspected of damaging fertility or the unborn child.

· **Indication of any immediate medical attention and special treatment needed:**
Treat frost-bitten areas appropriately. Medical supervision for at least 48 hours. If necessary oxygen respiration treatment.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** None.

· **Special hazards arising from the substance or mixture**
Danger of receptacles bursting because of high vapor pressure if heated.
Formation of toxic gases is possible during heating or in case of fire.

· **Advice for firefighters, Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

· **Additional information:**
Eliminate all ignition sources if safe to do so.
Cool endangered receptacles with water spray.
Use large quantities of foam as it is partially destroyed by the product.
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

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Trade name: Engine Priming Fuel

SDS

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/ aerosol.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Keep away from ignition sources.
Protect from heat.

· **Environmental precautions**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.

· **Methods and material for containment and cleaning up**
Allow to evaporate.
Absorb liquid components with non-combustible liquid-binding material.
Send for recovery or disposal in suitable receptacles.

· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Handling

· **Precautions for safe handling:**
Use only in well ventilated areas.

· **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 120 °F / 49 °C, i.e. electric lights. Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material.

Conditions for safe storage, including any incompatibilities

· **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurized containers.

· **Information about storage in one common storage facility:**
Store away from oxidizing agents.

· **Further information about storage conditions:**
Protect from heat and direct sunlight.
Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

· **Specific end use(s):**
No relevant information available.

8 Exposure controls/personal protection

Control parameters

· **Components with limit values that require monitoring at the workplace:**

60-29-7 diethyl ether

PEL (USA)	Long-term value: 1200 mg/m³, 400 ppm
TLV (USA)	Short-term value: 1520 mg/m³, 500 ppm Long-term value: 1210 mg/m³, 400 ppm
EL (Canada)	Short-term value: 500 ppm Long-term value: 400 ppm
EV (Canada)	Short-term value: 1.515 mg/m³, 500 ppm Long-term value: 1,210 mg/m³, 400 ppm
LMPE (Mexico)	Short-term value: 500 ppm Long-term value: 400 ppm

124-38-9 Carbon dioxide

PEL (USA)	Long-term value: 9000 mg/m³, 5000 ppm
REL (USA)	Short-term value: 54,000 mg/m³, 30,000 ppm Long-term value: 9000 mg/m³, 5000 ppm
TLV (USA)	Short-term value: 54,000 mg/m³, 30,000 ppm Long-term value: 9000 mg/m³, 5000 ppm
EL (Canada)	Short-term value: 15000 ppm Long-term value: 5000 ppm
EV (Canada)	Short-term value: 54,000 mg/m³, 30,000 ppm Long-term value: 9,000 mg/m³, 5,000 ppm
LMPE (Mexico)	Short-term value: 30000 ppm Long-term value: 5000 ppm

64-17-5 Ethanol

PEL (USA)	Long-term value: 1900 mg/m³, 1000 ppm
REL (USA)	Long-term value: 1900 mg/m³, 1000 ppm
TLV (USA)	Short-term value: 1880 mg/m³, 1000 ppm
EL (Canada)	Short-term value: 1000 ppm
EV (Canada)	Long-term value: 1,900 mg/m³, 1,000 ppm
LMPE (Mexico)	Long-term value: 1000 ppm A3

75-00-3 chloroethane

PEL (USA)	Long-term value: 2600 mg/m³, 1000 ppm
REL (USA)	Handle with caution; See Pocket Guide App. C
TLV (USA)	Long-term value: 264 mg/m³, 100 ppm Skin
EL (Canada)	Long-term value: 100 ppm Skin
EV (Canada)	Long-term value: 100 ppm
LMPE (Mexico)	Long-term value: 100 ppm A3, PIEL

108-88-3 Toluene

PEL (USA)	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift	EL (Canada)	Long-term value: 20 ppm R
REL (USA)	Short-term value: 560 mg/m³, 150 ppm Long-term value: 375 mg/m³, 100 ppm	EV (Canada)	Long-term value: 20 ppm
TLV (USA)	Long-term value: 75 mg/m³, 20 ppm BEI	LMPE (Mexico)	Long-term value: 20 ppm A4, IBE

Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 Regulations
Trade name: Engine Priming Fuel

SDS

8 Exposure controls/personal protection, continued

· **Ingredients with biological limit values:**

108-88-3 Toluene			
BEI (USA)	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene	0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene	0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

· **Exposure controls**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
· **Engineering controls:** No relevant information available.
· **Breathing equipment:**
Not required under normal conditions of use.
Use suitable respiratory protective device when high concentrations are present.
· **Protection of hands:**
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Thermally-protective gloves.
· **Eye protection:**
Safety glasses
· **Body protection:**
Not required under normal conditions of use.
Protection may be required for spills.
· **Limitation and supervision of exposure into the environment**
No relevant information available.
· **Risk management measures:** No relevant information available.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **Appearance:**
Form: Compressed gas
Color: Colorless
· **Odor:** Sweetish, ether-like
· **Odor threshold:** Not determined.
· **pH-value:** Not determined.
· **Melting point/Melting range:** Not determined.
· **Boiling point/Boiling range:** 34 °C (93.2 °F)
· **Flash point:** -45 °C (-49 °F)
· **Flammability (solid, gaseous):** Not applicable.
· **Auto-ignition temperature:** 175 °C (347 °F)
· **Decomposition temperature:** Not determined.
· **Danger of explosion:** May form explosive peroxides.
· **Explosion limits**
Lower: 1.8 Vol %
Upper: 37 Vol %
· **Oxidizing properties:** Non-oxidizing.
· **Vapor pressure:** Not determined.
· **Density:**
Relative density: Not determined.
Vapor density: Not determined.
Evaporation rate: Not applicable.
· **Solubility in / Miscibility with Water:** Partly miscible.
· **Partition coefficient (n-octanol/water):** Not determined.
· **Viscosity**
Dynamic: Not determined.
Kinematic: Not determined.
· **Other information:** No relevant information available.

10 Stability and reactivity

· **Reactivity:** No relevant information available.
· **Chemical stability:**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
Danger of receptacles bursting because of high vapor pressure if heated.
· **Possibility of hazardous reactions**
Can react violently with oxygen rich (oxidizing) material. Danger of Explosion. Immediately flammable in air.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized. Used empty containers may contain product gases which form explosive mixtures with air.
· **Conditions to avoid**
Store away from oxidizing agents.
Keep ignition sources away - Do not smoke.
· **Incompatible materials:** Oxidizers
· **Hazardous decomposition products**
Under fire conditions only:
Carbon monoxide and carbon dioxide
· **Additional information:** Antioxidant has been added to product to retard formation of peroxides.

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:** Harmful if swallowed.
· **LD/LC50 values that are relevant for classification:**
ATE (Acute Toxicity Estimate)
Oral LD50 1,869-2,209 mg/kg (rat)

60-29-7 diethyl ether

Oral	LD50	1,215 mg/kg (rat)
Inhalative	LC50/4h	73,000 mg/l (rat)

75-00-3 chloroethane

Inhalative	LC50/4h	160 mg/l (rat)

Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 Regulations
Trade name: Engine Priming Fuel

SDS

11 Toxicological information, continued

· **Primary irritant effect:**
· **On the skin:** Irritant to skin and mucous membranes.
· **On the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Subacute to chronic toxicity:** Vapors have narcotic effect.
· **IARC (International Agency for Research on Cancer):**
64-17-5 Ethanol 1
· **NTP (National Toxicology Program):**
None of the ingredients are listed.
· **OSHA-Ca (Occupational Safety & Health Administration):**
None of the ingredients are listed.
· **Probable route(s) of exposure:** None
· **Acute effects (acute toxicity, irritation and corrosivity):**
Harmful if swallowed.
May be fatal if swallowed and enters airways.
Vapors have narcotic effect.

· **Repeated dose toxicity:** Possible risk of irreversible effects.
· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
· **Carcinogenicity:** Based on available data, the classification criteria are not met.
· **Reproductive toxicity:** Suspected of damaging fertility or the unborn child.
· **STOT-single exposure:** May cause drowsiness or dizziness.
· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
· **Aspiration hazard:** May be fatal if swallowed and enters airways.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** Toxic for aquatic organisms
· **Persistence and degradability:** No relevant information available.
· **Bioaccumulative potential:** No relevant information available.
· **Mobility in soil:** No relevant information available.
· **Ecotoxical effects:**
· **Remark:** Very toxic for fish

· **Additional ecological information**
· **General notes:**
Avoid release to the environment.
Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects:** No relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Contact manufacturer for recycling information.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
· **Uncleaned packagings**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**
· **DOT, ADR, IMDG, IATA** UN3161
· **UN proper shipping name**
· **DOT** Liquefied gas, flammable, n.o.s. (Diethyl ether)
· **ADR** 3161 LIQUEFIED GAS, FLAMMABLE, N.O.S. (DIETHYL ETHER), ENVIRONMENTALLY HAZARDOUS
· **IMDG** LIQUEFIED GAS , FLAMMABLE, N.O.S. (DIETHYL ETHER), MARINE POLLUTANT
· **IATA** LIQUEFIED GAS, FLAMMABLE, N.O.S. (DIETHYL ETHER)
· **Transport hazard class(es)**

· DOT	· ADR	· IMDG	· IATA
			
· Class 2 Gases.	· Class 2 2F Gases	· Class 2.1	· Class 2.1
· Label 2.1	· Label 2.1	· Label 2.1	· Label 2.1

· **Packing group** This UN-number is not assigned a packing group
· **Environmental hazards:** Naptha (petroleum), hydrotreated light
· **Marine pollutant:** Yes, Symbol (fish and tree)
· **Special marking (ADR):** Symbol (fish and tree)
· **Special marking (IATA):** Cargo Aircraft Only. 

· **Special precautions for user:** Warning: Gases
· **Danger code (Kemler):** 23
· **EMS Number:** F-D,S-U
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
· **UN "Model Regulation":** UN3161, Liquefied gas, flammable, n.o.s. (Diethyl ether (Ethyl Ether)), ENVIRONMENTALLY HAZARDOUS, 2.1

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **United States (USA)**
· **SARA**
· **Section 302 (extremely hazardous substances):**
None of the ingredients are listed.
· **Section 355 (extremely hazardous substances):**
None of the ingredients are listed.
· **Section 313 (Specific toxic chemical listings):**
75-00-3 chloroethane
· **TSCA (Toxic Substances Control Act)**
All ingredients are listed.
· **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**
60-29-7 diethyl ether 10000
75-00-3 chloroethane 10000

· **Proposition 65 (California)**
· **Chemicals known to cause cancer:**
64-17-5 Ethanol
75-00-3 chloroethane
· **Chemicals known to cause developmental toxicity for females:**
None of the ingredients are listed.
· **Chemicals known to cause developmental toxicity for males:**
None of the ingredients are listed.
· **Chemicals known to cause developmental toxicity:**
64-17-5 Ethanol
108-88-3 Toluene
· **EPA (Environmental Protection Agency):**
108-88-3 Toluene II
· **IARC (International Agency for Research on Cancer):**
64-17-5 Ethanol 1
· **Canadian Domestic Substances List (DSL) (Substances not listed.):**
All ingredients are listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. These data are offered in good faith as typical values and not product specifications. The information in this data sheet is believed to be correct and reliable. However, the data is offered solely for consideration, evaluating and verification by the user. No guarantee, warranty, or representation of accuracy of completeness is expressed or implied. KBi/Kold-Ban International, Ltd. assumes no responsibility for any kind of loss or damage arising from use of this data.

· **Abbreviations and acronyms:**
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistant, Bio-accumulable, Toxic
vPvB: very Persistent and very Bioaccumulative
OSHA: Occupational Safety & Health Administration

Flam. Gas 1: Flammable gases – Category 1
Press. Gas: Gases under pressure – Compressed gas
Press. Gas: Gases under pressure – Liquefied gas
Flam. Liq. 1: Flammable liquids – Category 1
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Carc. 2: Carcinogenicity – Category 2
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1

· Sources
Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers
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