U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

APR 3 1998

Mr. James O. Burke
Vice President, Operations
Kold Ban Internal, Ltd.
900 Pingree Road
Lake in the Hills, IL 60102-9637

Dear Mr. Burke:

This is in response to your letter concerning the classification of engine starting fluid under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you requested the shipping description and classification for a mixture consisting of flammable liquids and carbon dioxide that is transported at a pressure of approximately 150 psig. The mixture was previously transported under the shipping description, "Engine starting fluid," UN1960 which was removed from the Hazardous Materials Table under Docket HM-215B [62 FR 24703] published May 6, 1997. You state that the mixture is not contained in an aerosol container.

Based on the information you submitted, the appropriate description for the formulation is "Liquefied gas, flammable, n.o.s.," UN3161.

I hope this information is helpful. Please contact this office if we can be of further assistance.

Sincerely,

Hattie L. Mitchell

Hattie L. Mitchell, Chief
Regulatory Review and Reinvention
Office of Hazardous Materials Standards

Kold Ban International, Ltd 8390 Pingree Rd., Lake In The Hills. IL 60102, USA

KBi® FAX

Kold Ban International, Ltd.

Date: **Monday, March 23, 1998**

Number of pages including cover sheet: **5**

To: Frits Wybenga
RSPA / AAHMS

Phone: (202) 366-0656
Fax phone: (202) 366-5713
CC:

From: James O. Burke

Phone: (847) 658-8561
Fax phone: (847) 658-9280

REMARKS: ☐ Urgent ☐ For your review ☐ Reply ASAP ☒ Please comment

3-23-1998 12:09PM FROM KBI 847+658+9280

KBI KOMPAC® DIESELMATIC® DIESEL START®
STARTING FLUID SYSTEMS

March 23, 1998

KATHY PLS MAKE UP PREPARE LETTER FOR ED MAZZUCO'S SIGN.

fax #847-658-9280

Mr. Frits Wybenga
RSPA / AAHMS
400 7th Street Southwest
Washington, DC 20590

Subject: KBI Engine Starting Fluid Cylinders,

Dear Mr. Wybenga,

The attached documents concern the KBI product we have discussed.

It is my understanding that after October 1, 1998, the DOT will no longer recognize the classification of UN1960. Could your office please provide me with a description and classification that would allow KBI to continue to ship this product as we had under UN1960?. Also, should KBI refrain from describing this product as "Engine Starting Fluid" so as not to confuse any new classification with the old one?

I am looking forward to your timely response, as coordinating these efforts before October 1, 1998 is of utmost concern.

Please feel free to call me with any questions, comments or suggestions.

Sincerely Yours,

James O. Burke
VP Operations

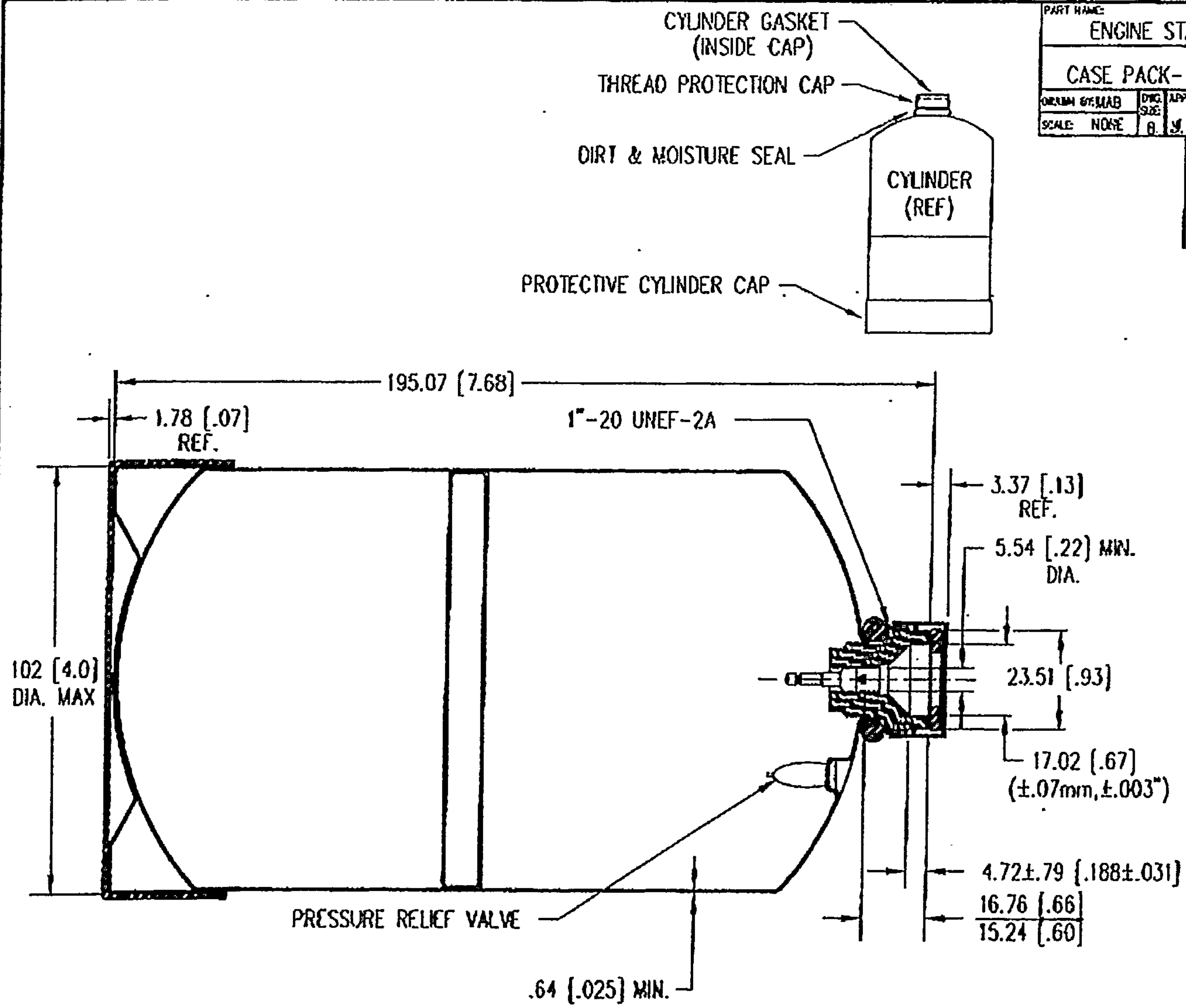
The appropriate description for this formulation is UN 3161 liquefied gas, flammable, n.o.s.

at approximately 150 psig at 70°F

This is in response to your letter of March 23, 1998 concerning the proper classification of a mixture of a flammable liquid that is transported at a pressure through the use of carbon dioxide. This mixture was previously transported under the description Engine Starting Fluid, a description that has now been removed from the Hazardous Materials Regulations.

KBI KOLD BAN INTERNATIONAL, LTD., 900 PINGREE ROAD, LAKE IN THE HILLS, IL 60102-9637 U.S.A.
(847) 658-8561 FAX (847) 658-9280

3-23-1998 12:09PM FROM KBI 8474658+9280



PART NAME: ENGINE STARTING FLUID CYLINDER			PART NUMBER: 020020
CASE PACK-12 CYLINDERS PER CASE			CUST. PART NUMBER:
DRAWN BY: MAB / SCALE: NONE	DWG. SIZE: B	APPROVED BY: 10/5/93 Y. Paulsen	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN mm. TOLERANCES ARE: ±.5 ANGLES ±° ALL DIAMETERS MUST BE CONCENTRIC TO ±.12 ... FINISH PER ... DO NOT SCALE DRAWING

REV	DESCRIPTION	DATE	BY
F	MADE NEW DRAWING	2/16/87	JSB
G	REDRAWN AND REVISED	10/5/93	MAB
H	ADDED THRD CAP PIC, ADDED 1.78 & 3.37 DIMS	1/28/94	MAB

NOTES:

1. VOLUMETRIC CAPACITY-1170cm³ (71in³) NOM.
2. MIN. BURST PRESSURE-68.9 BARS (1000 PSI)
3. CONTENTS-595g AVOP. (21 oz.), 828ml (28 fl.oz.) - MAX 70% OF VOLUMETRIC CAPACITY AT 21°C (70°F)
4. EMPTY CYLINDER WEIGHT-454g AVOP. (16oz.) NOMINAL
5. CYLINDER, LABELLING, CONTENTS, TESTING, AND PACKAGING SHALL CONFORM WITH OR EXCEED ALL USA DEPARTMENT OF TRANSPORTATION (DOT) REQUIREMENT CFR49, PARTS 100 TO 199-SPEC.39; DOT39 NRC REGULATIONS.
6. SERVICE PRESSURE-10.2 BARS AT 21°C (148 PSI AT 70°F) TEST PRESSURE-18.3 BARS AT 54°C (265 PSI AT 130°F).
7. KOLD BAN INTERNATIONAL, LTD. 'S DOT REGISTRATION NUMBER M1042 MUST APPEAR ON LABEL.
8. PRESSURE RELIEF VALVE SETTING: 32.7-44.8 BARS (475-650 PSI), SHALL CONFORM WITH DOT CFR49 SECT. 173.34(D).
9. 1"-20 THREADS PROTECTED BY PLASTIC CAP.
10. PER USA/DOT CONTAINS "ENGINE STARTING FLUID". FLASH POINT: -49°C (-56°F), ALSO SEE NOTE 5.
11. CYLINDER MATERIAL:
    A. RAW SHEET STEEL (DEEP DRAW QUALITY)
       $.736 ^{+.152}_{-.000}$ mm ($.029 ^{+.006}_{-.000}$ INCHES)
    B.

	LADLE ANALYSIS	CHECK ANALYSIS
CARBON, MAXIMUM PERCENT	0.12	0.15
PHOSPHORUS, MAXIMUM PERCENT	0.04	0.05
SULFER, MAXIMUM PERCENT	0.05	0.06

    C. AFTER DRAWING SHEET STEEL (DEEP DRAW QUALITY)
       MINIMUM WALL THICKNESS $.635 ^{+.229}_{-.000}$ mm
       ($.025 ^{+.009}_{-.000}$ INCHES)
12. DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.
13. CYLINDER PAINTED WITH HIGH SOLIDS ACRYLIC BAKING ENAMEL-.8 MILLS MINIMUM THICKNESS

THIS DOCUMENT IS THE PROPERTY OF KBI, IT IS LOANED SUBJECT TO THE CONDITION THAT IT OR ANY INFORMATION CONTAINED HEREIN WILL NOT BE REVEALED TO ANY UNAUTHORIZED PERSON OR REPRODUCED OR USED FOR MANUFACTURING PURPOSES WITHOUT THE EXPRESS WRITTEN PERMISSION OF KBI AND THAT ALL COPIES WILL BE RETURNED IMMEDIATELY ON DEMAND.

KBI KONPIC DIESELMATIC STARTING FLUID SYSTEMS
KOLD BAN INTERNATIONAL, LTD.
900 PINECREST RD. LAKE IN THE HILLS, IL 60102-5657 U.S.A. (708) 658-8561

MATERIAL SAFETY DATA SHEET

Revised 22 September 1997

Transportation Emergency ..... CHEMTREC (800)424-9300

MSDS

SECTION 1 - MATERIAL IDENTIFICATION

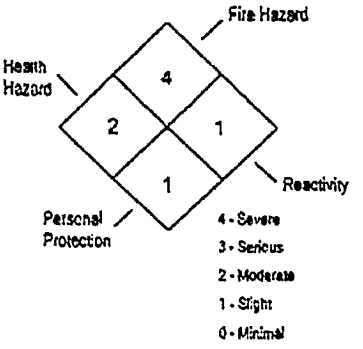
Product ..... ENGINE STARTING FLUID - 21 Oz. Starting Fluid Cylinder
ENGINE STARTING FLUID - 18 Oz. Starting Fluid Cylinder
ENGINE STARTING FLUID - 9 Oz. Starting Fluid Cylinder

Chemical Family ..... Mixture

Chemical Formula ..... Proprietary Formula

Chemical Trade Name, synonyms ..... N/A

Manufactured By ..... KBi/KOLD-BAN INTERNATIONAL, Ltd.
8330 Pingree Road
Lake in The Hills, IL 60102-9837
Telephone: (847)658-8581



SECTION 2 - INGREDIENTS

MATERIAL	CAS REG #	PEL/TLV SOURCE	PERCENT
Carbon dioxide	124-38-9	5000 ppm, OSHA	10-15
Diethyl ether	60-29-7	400 ppm, ACGIH	50-75
Heptane, related light hydrocarbons	142-82-5	500 ppm, OSHA	10-35
Mineral oil, severely hydrotreated, predominately napthenic	64742-53-6	5mg/m^3, ACGIH, for oil mists	< 1

PEL represents OSHA permissible exposure limit/time weighted average.
TLV represents ACGIH Threshold Limit Value-time weighted average.
Indicates maximum concentration in air per 8 hour exposure time.

SECTION 3 - PHYSICAL DATA

Boiling Range ..... For diethyl ether, 94° F.

Pressure in cylinder at 70° F ..... Approximately 150 psig

Vapor Density (Air = 1) ..... Approximately 2.5

Solubility in water ..... Approximately 6% at 70° F.

Specific Gravity (Water = 1) of product 0.70

Percent Volatile by weight 86.0%

Evaporation Rate (Butyl Acetate = 1) ..... Approximately 6.0

Appearance and Odor ..... Pale yellow to clear liquid, strong ethereal odor, evaporates quickly, leaves slight lubricant residue.

SECTION 4 - HAZARDOUS REACTIVITY

Stability ..... Contents of cylinders should not be exposed to air and light, unstable explosive peroxides may be formed and concentrate by evaporation to hazardous levels. Generally stable in sealed metal containers.

Conditions to avoid ..... Heat, sparks, flames, strong oxidizers.

Hazardous Polymerization ..... Will not occur.

Hazardous Decomposition Products ..... Carbon monoxide may form on combustion.

SECTION 5 - FIRE AND EXPLOSION HAZARDS

Flammability Category ..... Extremely flammable (Reference - Consumer Product Commission, flame projection test for aerosol products per 16 CFR 1500.45)

Flash Point ..... Less than -56° F, TCC

Flammable Limits ..... 1.8% LEL 48.0% UEL

Extinguishing Media ..... Dry chemical, carbon dioxide, water-fog or mist only, alcohol foam.

Unusual Fire and Explosion Hazards ..... Avoid hazardous container pressures. Do not store where temperature may exceed 120° F. Do not puncture or incinerate container.

Special Fire Fighting Procedures ..... Avoid possible accumulations of flammable vapors at low levels, as vapor is heavier than air. Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals.

Note: This product's contents are extremely flammable at all times. Avoid inadvertent ignition sources, including static spark. If product vapor is allowed to accumulate in air, a dangerous fire and explosion hazard exists.

SECTION 6 - HEALTH HAZARD DATA

Suggested Exposure Guideline ..... 400 ppm (for Diethyl ether, ACGIH)

Primary Route of Exposure ..... Inhalation, skin contact

Effect of overexposure - Inhalation: ..... Dizziness, strong anesthesia, intoxication, unconsciousness.

Effects of overexposure - Skin Contact: ..... Irritation upon prolonged contact, defatting of skin.

Effects of overexposure - Eye Contact: ..... Irritation.

Carcinogenicity ..... This product does not contain any known or potential carcinogens as listed per NTP, IARC, ACGIH, or OSHA (29 CFR 1910.1200(D)(4).

Additional Health Hazard Data ..... Avoid contact with skin, eyes, or clothing.

SECTION 7 - EMERGENCY AND FIRST AID PROCEDURES

Inhalation ..... Remove to fresh air. Artificial respiration. Get immediate medical attention.

Skin Contact ..... Flush area well with soap and water. Avoid prolonged skin contact by removing and washing any clothing soaked with product.

Eye Contact ..... Flush eyes will with running water for 15 minutes.

Ingestion ..... Call physician or poison control center immediately. Proper treatment is dependent on condition of patient and amount ingested.

SECTION 8 - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled ..... Keep away from heat, fire, sparks, or flame. If contents are released or spilled, ventilate area well. CO_2 may be used as a precautionary vapor blanket. Small amounts may be flushed away with water.

Waste Disposal Method ..... Dispose of contents promptly in sealed metal containers, in accordance with all local, state, and federal regulations. Do not puncture or incinerate container. Avoid any contamination of groundwater.

SECTION 9 - SPECIAL PROTECTION INFORMATION

Respiratory Protection ..... If TLV is exceeded wear NIOSH-approved self-contained breathing device or respirator.

Ventilation ..... Must be adequate to maintain vapors at less than 400 ppm, particularly at floor level as vapors are heavier than air. Avoid excessive breathing of vapor.

Protective Gloves ..... None needed for normal use. Nitrile or other impervious type may be used for prolonged exposure.

Eye Protection ..... Safety glasses or goggles recommended. Vapors may irritate eyes.

Other ..... Avoid contact with skin, eyes, or clothing.

SECTION 10 - HANDLING AND STORAGE PRECAUTIONS

Precautions to be taken in Handling and Storage ..... Do not store where temperature may exceed 120° F. Do not store near heat, fire, flame, or sparks. Store in suitable area for hazardous materials storage.

DOT Shipping Name ..... Engine Starting Fluid, *with flammable gas*

Hazard Class 2.1

DOT ID# UN1960

IATA Shipping Name ..... Aerosols, flammable, n.o.s., (engine starting fluid)

IATA ID# UN1950

Label Required ..... Red label (Flammable Gas 2) required on cartons.

SECTION 11 - SPECIAL PRECAUTIONS

Precautions for Usage ..... Read all cautionary information on cylinders and use only in accordance with directions. Do not use near heat, fire, flame, or sparks. Do not spray in direction of body. Use only with good ventilation. Keep away from children.

NOTICE: 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.

END OF MSDS

© 1997 KBI, Form No. 131119