

1-30-2023: File reviewed, more current MSDS/SDS not available. JMC

Material Safety Data Sheet

MSDS

Revised 25 Aug 2005

Printed Thu, Sep 15, 2005

ZERO START STARTING FLUID
(Cylinders 820-0327, 820-0335, 820-1277, 820-1137)

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MATERIAL IDENTIFICATION

Distributor **U.S.A.:**
Phillips & Temro Industries Inc.
9700 West 74th Street
Eden Prairie, MN 55344

Distributor **Canada:**
Phillips & Temro Industries Ltd.
100 Paquin Road
Winnipeg, Manitoba Canada R2J 3V4

Telephone:
U.S.: 952-941-9700

Canada: 204-667-2260

Transportation Emergency:

U.S.
Telephone Chemtrec: 800-424-9300

Canada
CANUTEC: 613-996-6666

Chemical Trade Name,
Synonyms:

NA

Chemical Family:

Mixture

Chemical Formula:

Proprietary Formula

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COMPONENTS

| Material | CAS Number | PEL/TLV, Source | Percent |
|-------------------------------------|------------|-----------------|---------|
| Diethyl Ether | 60-29-7 | 400 ppm, ACGIH | 60-75 |
| Heptane, related light hydrocarbons | 142-82-5 | 500 ppm, OSHA | 15-25 |

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PHYSICAL DATA

Boiling Range 94°F, for Diethyl ether

Pressure in can at 70°F Approx. 150 psig

Vapor Density (Air=1) Approx. 2.5

Solubility in water Approx. 6% at 70°F

Specific Gravity (Water=1) 0.70

Percent Volatile by weight 86.0
Evaporation Rate (BuAce=1) Approx. 6
Appearance and odor Pale yellow to clear liquid, strong ethereal odor,
evaporates quickly, leaves slight lubricant residue.

HAZARDOUS REACTIVITY

Stability Unstable explosive peroxides may be formed and concentrate
by evaporation to hazardous levels. This process is favored by
prolonged storage with exposure to air and light. Generally
stable in sealed metal containers.

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

Hazardous Polymerization Will not occur

Hazardous Decomposition Carbon monoxide may form on combustion.
Products

FIRE AND EXPLOSION DATA

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 LEL% 1.8 UEL% 48.0

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

Unusual Fire and
Explosion Hazards Avoid possible bursting of aerosol can. Do not store
where temperature may exceed 120°F. Do
Not puncture or incinerate.

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

*This product is 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.*

HEALTH HAZARD INFORMATION

Suggested Exposure Guideline 400 ppm, (for Diethyl Ether, ACGIH)
Primary Route of Exposure Inhalation, skin contact
Inhalation Dizziness, strong anesthesia, intoxication,
unconsciousness.
Skin Contact Irritation upon prolonged contact, defatting of skin.
Eye Contact Irritation
Carcinogenicity None of the components in this material is listed by
IARC, NTP, OSHA, or ACGIH as a carcinogen.
Additional Health
Hazard Data Avoid contact with skin, eyes, or clothing.

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FIRST AID

Inhalation Remove to fresh air. Artificial respiration, consult physician.
Skin Contact Wash with soap and water. Remove soaked clothing to avoid prolonged skin contact.
Eye Contact Flush eyes well 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.

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SPILL OR LEAK PROCEDURES

Steps to be taken in Case material is released or spilled. Keep away from heat, fire, sparks, or flame. Ventilate area well. CO₂ may be used as a precautionary vapor blanket. Small amounts may be flushed away with water.
Waste disposal method Dispose of in accordance with all local, state and Federal regulations. Do not puncture or incinerate. Avoid any contamination of groundwater.

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SPECIAL PROTECTION INFORMATION

Respiration Protection If TLV is exceeded wear NIOSH-approved self-contained breathing device or respirator.
Ventilation Must be adequate to maintain vapors at less than 400ppm, particularly at floor level as vapors are heavier than air.
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

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HANDLING AND STORAGE PRECAUTIONS

Precautions to be taken
in handling and storage

Do not store where temperature may exceed 120°F.
Store away from, fire, sparks, or flame. Store in
suitable area for hazardous materials storage.

D.O.T. Shipping
Classification

Compressed Gas, Flammable N.O.S. (Ether, Carbon
Dioxide)

Hazard Class

2.1

ID Number

UN1954

Label Required

Flammable Gas

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SPECIAL PRECAUTIONS

Precautions for usage

Do not use near heat, fire, flame or sparks. Avoid
excessive breathing of vapor. Do not spray in direction
of body. Use only in accordance with directions.

Hazard Ratings:

4 = Extreme

Health = 2

3 = High

Fire = 3

2 = Moderate

Reactivity = 0

1 = Slight

0 = Insignificant

Notice: This data represents typical values, not product specifications. No guarantee of accuracy or completeness is made. No responsibility is assumed for any kind of loss or damages arising from use of this data.

End of MSDS