

M a t e r i a l S a f e t y D a t a S h e e t

A. B. Chance Company
210 N. Allen Street
Centralia, Missouri 65240

Product: DRY FILM LUBRICANT
Internal ID: C400-2335

MSDS No: ABC / C61
Date: February 26, 1993

National Paint and Coatings Association Hazardous Material Identification System	HEALTH HAZARD	3 CO ₂
	FLAMMABILITY HAZARD	3 Ethyl Acetate
	REACTIVITY HAZARD	0 - Minimal
	PERSONAL PROTECTION	SEE SECTION 8

SECTION I. MATERIAL IDENTIFICATION

Trade/Material Name: DRY FILM LUBRICANT

Description: Aerosol can, gray, lubricating, dry film, coating.

Other Designations: P400-2336

CAS: Mixture

Chemical Name: Fluoropolymer/Molybdenum Disulfide/Resin Binder/Ethyl Acetate/Isopropyl Alcohol/Carbon Dioxide.

The HMIS Ratings given above are the highest values listed on any ingredient in this mixture. Carbon dioxide has a health hazard value of "3". It however is less than 10% of the mixture and is used as the propellant. Ethyl Acetate, the major ingredient has a health hazard rating of only 1.

Manufacturer: A. B. Chance Company
210 N. Allen
Centralia, Mo. 65240

Phone: DAYS 573-682-8543
NIGHTS/WEEKENDS 573-682-8727

SECTION II. INGREDIENTS AND HAZARDS

Ingredient Name:	CAS Number:	Percent:	Exposure Limits:
Ethyl Acetate	141-78-6	85-90	PEL: 400 ppm, 1,400 mg/m ³ TWA: 400 ppm, 1,400 mg/m ³
Isopropyl Alcohol	67-63-0	<5	PEL: 400 ppm; 980 mg/m ³ TWA: 400 ppm; 980 mg/m ³ STEL: 500 ppm; 1,225 mg/m ³
Molybdenum Disulfide	1317-33-5	<5	TLV: 10 mg/m ³ as a dry powder. When incorporated into a dispersion, TLV is not relevant.

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INGREDIENTS AND HAZARDS continued from page 1

Carbon Dioxide	124-38-9	4-6	PEL: 5,000 ppm; 9,000 mg/m ³ TWA: 10,000 ppm; 18,000 mg/m ³ STEL: 30,000 ppm; 54,000 mg/m ³
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SECTION III. PHYSICAL DATA

Appearance & Odor: Dark gray dispersion with a sweet ester odor. Aerosol mist, after spraying and drying, leaves dry black residue.

Boiling point: 172-180°F @ 760 mm Hg.	Evaporation rate: 4.1 (Butyl acetate = 1)
Vapor pressure: 86 mm Hg. @ 20°C	Specific gravity (H₂O=1): 0.97
Water solubility (%): Moderate	% volatile by volume: 92-96 % by weight.
Vapor density (air=1): 3.04	

**The Physical Data above apply to concentrate (less propellant).

SECTION IV. FIRE AND EXPLOSION DATA

Flash Point (method): ** Ethyl Acetate = Limits: LEL %: 2.12 (Ethyl UEL %: 10.7 (Ethyl
24°F (-4.4°C); Isopropyl Alcohol = 53°F Acetate) Acetate)
(11.7°C); Carbon Dioxide = Not found.

Extinguishing Media: Water spray, CO₂, or dry chemical.

Unusual fire or explosion hazards: Containers may explode when exposed to extreme heat.

Special fire-fighting procedures: Water fog may be used to cool containers to prevent pressure buildup when exposed to extreme heat.

** According to the CSMA Aerosol Guide (April 1981), this aerosol spray passes the flame projection test (ASTM-D-3065) and is thus NOT CLASSIFIED as a "FLAMMABLE" aerosol. However, due to the presence of the flammable solvents, ethyl acetate and isopropyl alcohol, aerosol should not be sprayed in or near open flames or other ignition sources.

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SECTION V. REACTIVITY DATA

Material is stable in closed containers at room temperature under normal storage and handling conditions. Hazardous polymerization will not occur

Chemical incompatibilities: This material reacts vigorously with chlorosulfonic acid, lithium aluminum hydride and 2-chloromethyl furan, oleum, and potassium t-butoxide. Contact with nitrates, strong acids, strong oxidizers, or strong alkalis may cause fire or explosion.

Conditions to avoid: Avoid exposure to heat, sparks, or open flame.

Hazardous decomposition Products: Carbon dioxide, carbon monoxide, and possibly small quantities of toxic fluorine compounds.

Ethyl acetate is a good solvent and will attack some forms of plastics, rubber, and coatings.

SECTION VI. HEALTH HAZARD INFORMATION

Summary of risks: Vapors of ethyl acetate are irritating to the eyes and respiratory tract at concentrations above 400 ppm. Exposure to excessive concentrations may cause headache and narcosis. Exposure of this nature is unlikely, however, because the irritating properties will cause workers to exit the area. The liquid is irritating to the skin and eyes. Repeated and/or prolonged contact with the skin has a defatting effect and may cause drying and cracking. Contact with the eyes may cause painful conjunctival irritation. Ingestion may cause headache, drowsiness, and unconsciousness.

Target organs: Chronic overexposure to ethyl acetate may cause anemia with leukocytosis and damage to liver and kidneys. * See Comments.

First aid:

Eye contact: Promptly flush eyes, including under the eyelids, for at least 15 minutes with running water. Get medical help if irritation persists.

Skin contact: Promptly flush exposed area with running water while removing contaminated shoes and clothing. Get medical help if irritation persists.

Inhalation: Remove victim to fresh air. Restore and/or support breathing as required. Get medical help.

Ingestion: Give victim one or two glasses of milk or water. Contact a poison control center. Do not induce vomiting unless directed to do so. Transport victim to a medical facility. Never give anything by mouth to a person who is unconscious or convulsing.

* The TLV of 400 ppm is believed to prevent systemic effects but may be irritating to

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HEALTH HAZARD INFORMATION continued from page 3

some workers who are unaccustomed to the exposure.
Ethyl Acetate, Molybdenum Disulfide and Carbon Dioxide are not listed as Carcinogens by IARC, NTP, OSHA.
Isopropyl Alcohol is not listed as a Carcinogen by NTP and OSHA. It is listed as a "Group 3" Carcinogen by IARC.

SECTION VII. SPILL, LEAK AND DISPOSAL PROCEDURES

Spill / Leak procedures: Eliminate ignition sources. Soak up with inert absorbent such as sand, earth or vermiculite and put in closed container for prompt disposal.

Waste management / Disposal: Contents under pressure. Do not puncture or incinerate can. Empty can before discarding to relieve internal pressure. After contents have been removed from can they can be incinerated in compliance with local, state and federal regulations.

SECTION 311/312 HAZARD CATEGORIES:

Ethyl Acetate and Isopropyl Alcohol: 1.) Immediate (Acute) Health Hazard. 2.) Delayed (Chronic) Health Hazard. 3.) Fire Hazard.
Carbon Dioxide: 2.) Delayed (Chronic) Health Hazard.
Molybdenum Disulfide: No Hazard Categories Listed.

CERCLA SPILL LIST: Ethyl Acetate (5,000 lbs.); Isopropyl Alcohol, Carbon Dioxide and Molybdenum Disulfide (Not Listed).

THRESHOLD PLANNING QTY.: 10,000 lbs. (each material).

FORM R CHEMICAL: Isopropyl Alcohol = 10,000 lbs. Used; 25,000 Manufacture or Processed. Ethyl Acetate, Carbon Dioxide and Molybdenum Disulfide are Not Listed.

CLEAN AIR ACT and CLEAN WATER LIST: "No" for each material.

EHS LIST: Not Listed (each material)

RCRA WASTE #: Ethyl Acetate = U112 / I. Isopropyl Alcohol, Carbon Dioxide and Molybdenum disulfide are Not Listed.

SECTION VIII. SPECIAL PROTECTION INFORMATION

Personal protective equipment:

Goggles: Safety glasses or splash goggles should be worn in all work areas. Contact lenses pose a special hazard; soft lenses may absorb irritants an all lenses concentrate them.

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SPECIAL PROTECTION INFORMATION continued from page 4

Gloves: Impermeable gloves recommended.

Respirator: In absence of environmental control, approved organic vapor-type respirator.

Workplace considerations:

Ventilation: Control vapor to standard, OSHA standard 400 ppm.

Safety stations:

Availability to eye wash stations is recommended.

PRECAUTIONARY STATEMENTS AND ADDITIONAL INFORMATION:

Contents under pressure; Do not puncture or incinerate can.
Avoid prolonged and/or deliberate breathing of spray mist.
Use with adequate ventilation especially in enclosed areas.
Flammable liquid and vapor - keep away from flames and other ignition sources.
Do not smoke while using nor contaminate tobacco products.
Avoid contact with eyes or skin.
Wash hands after handling.

SECTION IX. SPECIAL PRECAUTIONS

Storage segregation: Do not place can on or near heated surfaces.

Special handling / storage: Contents under pressure. Do not puncture or incinerate can.

DOT Class: Ethyl Acetate = Flammable
Liquid
Isopropyl Alcohol = Flammable
Liquid

UN Register: Ethyl Acetate = UN 1173
Isopropyl Alcohol = UN 1219
Carbon Dioxide = UN 1013

Prepared/revised by: BILL EMERY ENVIRONMENTAL MGR.

March 15, 1996

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