

# Material Safety Data Sheet

## Duo Fill 400

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### IDENTIFICATION

Product Name: Duo Fill 400 (Part A and B)

Manufacturer: HAGO  
Chemotechnik GmbH&Co. KG  
Bodenseestrasse 217  
D-81243 Muchen, Germany  
Phone No: 011 49 89 897702-0  
Fax: 011 49 89 879321

U.S. Distributor: Todol Products  
P.O. Box 398  
20 Charles Street  
Natick, MA 01760  
Phone No: 800-252-3818  
Fax No: 508-651-0729

Product Overview: Duo Fill 400 is a two-part chemical curing urethane foam packaged in pressurized cans. The propellants are in compliance with the Montreal Protocol and are do not contain any CFC's.

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### EMERGENCY INFORMATION

For general chemical information call Todol Products  
(800) 252-3818, fax (508) 651-3818

For chemical emergency call Infotrac:  
(USA): (800) 535-5053

For international transportation emergencies call Infotrac:  
(352) 323-3500

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**COMPONENTS (hazardous materials) and PHYSICAL DATA FOR PART A**

<u>Chemical Name</u>	<u>CAS Number</u>	<u>%age</u>	<u>TLV</u>
Urethane Prepolymer	Mixture		
Diphenylmethane 4,4' disocyanate (MDI)	101-68-8	5%-8%	.005 ppm
Dimethyl Ether	115-10-6		1000 ml/m <sup>3</sup>
Tetrafluoroethane (1.1.1.2)	811-97-2		1000 ml/m <sup>3</sup>
Tris(2-chlorisopropyl) phosphat	13674-87-8		

Appearance: Upon release from container, cream colored  
Odor: Weak odor during curing stage.  
Boiling point: For the aerosol, not applicable.  
Gravity: 1.08 to 1.15 g/cm<sup>3</sup>  
Flash point: Not applicable as aerosol  
Vapor pressure: 5 to 6.5 at 10° C  
Vapor density: Not determined  
Water solubility: Fresh and cured foam is not soluble. Reacts to CO<sub>2</sub> gas  
Evaporation Rate: Not available  
Flammable Limits: Lower = 1.5%, Upper = 18%

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**COMPONENTS (hazardous materials) and PHYSICAL DATA FOR PART B**

<u>Chemical Name</u>	<u>CAS Number</u>	<u>%age</u>	<u>TLV</u>
Polypropylene glycol	25322-69-4		
Dimorpholinodiethyl Ether	6425-39-4		
Tetrafluoroethane (1.1.1.2)	811-97-2		1000ppm

Appearance: Upon release from container, strong blue color  
Odor: Weak odor during curing stage.

Boiling point: For the aerosol, not applicable.  
Gravity: 1.06 to 1.15 g/cm<sup>3</sup>  
Flash point: Not applicable as aerosol  
Vapor pressure: 5.5 to 6.5 at 10° C  
Vapor density: Not determined  
Water solubility: Soluble  
Evaporation Rate: Not available  
Flammable Limits: Not available

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Explosion Data: Product is not explosive, however, formation of explosive air/steam mixtures is possible.

Reactivity Data: Stability: Stable  
Incompatibility: Water, Alcohols, Strong Alkalis  
Hazardous decomposition products: Carbon Monoxide, isocyanate monomers  
Hazardous polymerization: Will not occur

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### PRODUCT CARE AND USAGE

Storage: Cans should be stored in a cool dry location, ideally in a temperate range from 18° C (64° F) to 22° C (72° F) for maximum shelf life. The product should never be stored in direct sunlight, in temperatures exceeding 50° C (120° F), or frozen temperature ranges. Cans of the product should be kept out of the reach of children and not abused.

Usage: Read all instructions and information on can label. In colder climates , cans should be warmed to room temperature before use.

Due to production of flammable vapor, provide sufficient ventilation. Do not smoke, or use near an open flame or incandescent objects. Protective clothing, goggles and chemical resistant gloves are advised to avoid bodily contact with foam. Wash hands after use.

Disposal: Do not burn or pierce cans. Dispose of in proper manner in accordance with government guidelines for plastic and metal waste.

Spills: In case of spills or accidental release of product, ensure adequate ventilation and cover with moist material. Let fully cure before removing.

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#### POTENTIAL HAZARDS, PREVENTION, AND TREATMENT

Carcinogenicity: No ingredients are listed by IARC, NTP, or OSHA as carcinogens.

Skin: Contact may cause irritation and/or sensitization. Repeated or continued exposure may cause heightened sensitivity, rash or swelling.

Prevention: Use protective clothing and gloves.

Treatment: Remove uncured foam with mineral spirits, paint thinner, acetone such as Pur Clean or nail polish remover, and soap and water. Cured foam can be removed by abrasion, wear, and scrubbing with soap and water.

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Eyes: Direct contact can adhere to eyes and may cause irritation.

Prevention: Wear protective goggles while foaming.

Treatment: If foam comes in contact with eyes, flush thoroughly with water. Contact physician.

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Inhalation: Vapor may cause dizziness, headache, or grogginess. Components in the vapor also may irritate mucous membranes and depending on exposure and sensitivity can lead to coughing, an asthma-like reaction, bronchitis, and/or pulmonary edema.

Prevention: Ventilate foaming area.

Treatment: Get away from vapors and go to fresh air. In extreme cases oxygen or artificial respiration may be necessary.

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Ingestion: May irritate mucous membranes and/or damage digestion tract.

Treatment: DO NOT INDUCE VOMITING. Wash out the mouth with water; do not swallow. Consult physician immediately; provide chemical information on can.

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## FIREFIGHTING INFORMATION

Extremely high temperatures could cause pressurized cans to burst. Endangered containers may be cooled with water spray jet.

Released propellants could cause toxic gases including CO<sub>2</sub>. Firefighters should therefore wear self-contained breathing apparatus.

To extinguish use the following: extinguishing powder, alcohol-resistant foam, halon 1211, carbon dioxide or water jet (water contact will produce CO<sub>2</sub> under these circumstances).

Cured foam will burn if in contact with an open flame, but is self-extinguishing.

Flammability test ASTM E 84 / Flame Spread Index: 25 / Smoke Density: 210

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## REGULATORY AGENCIES

Duo Fill 400 is in compliance with Toxic Substances Control Act (TSCA), SARA Title III, and the Canadian Designated Substances List (CDSL). It is also in compliance, based on current information, with California's Proposition 65. USDA approved. ASTM tested.

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## SHIPPING INFORMATION

Ground: Consumer Commodity ORM-D

Air: Not transportable by air.

Water Aerosol. No label for hazardous material required, although boxes should be marked as Aerosols UN 1950. Non- Flammable 2.2 UN (with a capacity of less than 1000 cu. cm.)  
Consumer Commodity ORM-D

Emergency: Response Guide No.: Consumer Commodity 171 (Aerosols #126)

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## OTHER PHYSICAL PROPERTIES

Density: 1.87 lbs./cu. ft.

Cell structure:	Excessively closed, Approx. 88%
Compression load deflection (10%) compression:	8.5 lbs./in <sup>2</sup>
Tack-free @ 68° F (20° C)	Under 2 minutes
Cutable @ 68° F (20° C)	6 minutes
Thermal resistance: R factor ASTM C 518	5.9 per inch

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#### STATEMENT OF LIABILITY

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