



Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

Manufacturer's Name : Heelift Suspension Boots DM Systems, Inc. 1316 Sherman Ave. Evanston, IL 60201 Manufacturer's Name: Foam product in Heelift Suspension Boots Future Foam Inc. 1610 Ave. North Council Bluffs, Iowa 51501	Emergency Telephone Number DM Systems, Inc : 847-328-9541 Date Prepared January 13, 2003
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Section II - Hazard Ingredients/Identity Information

Flexible Polyurethane Foam CASNo. : not established <u>This material is not classified as hazardous.</u>	Chemical Family: Polyether urethane polymer	Synonyms: FPF, PUF, combustion modified, antistatic high resiliency, slow recovery.
Vapor Pressure (mm Hg.) : Not applicable	Melting Point : Not applicable	
Boiling Point : Not applicable	Evaporation Rate (Butyl Acetate = 1)	

Testing results on HeelLift Boot

ASTM D 3574 - Test A - Thickness

1.49 inches

ASTM D 3574 - Test A - Density

1.9 +/- 0.1 LB

ASTM D 3574 - Test H - Resilience (Ball) Test

50% Typical

ASTM D 3574 - Test B2 - Indentation Force Deflection

35 +/- 3 lbs.

ASTM D 3574 - Test D - Compression Set

I - 512188 C - 10831727009987
I - 580968 C - 9932
I - 580969 C - 9949
I - 642471 C - 9475

I - 647066 C - 10831727009925
I - 670638 C - 10831727009962
I - 513492 C - 1083172700997C

Eyes Contact: Dusts may cause mechanical irritation.	Inhalation: Dusts may cause irritation to the respiratory tract. When heated to decomposition, fumes are toxic.	Skin Contact: Rubbing may cause mechanical irritation. Skin absorption not expected to be significant under	Ingestion: Essentially non-toxic.
Health Hazards (Acute and Chronic) Skin: Not considered a primary skin irritant. Eye: Not considered an eye irritant. Ingestion: Acute oral LD 50 for an aqueous extract for rats was > 15,000 mg/Kg.			
Signs and Symptoms of Exposure: There are no specific exposure limits established for this product. Treat dusts as Particulates Not otherwise Classified (PNOC); ACGIH TLV 10 mg/M3 as inhalable fraction 3 mg/M3 as repairable fraction OSHA PEL 50 mppcf or 15 mg/M3 as total dust 15 mppcf or 5 mg/M3 as repairable fraction mppcf= million particles per cubic foot(of air) mg/M3= milligrams of substance per cubic meter of air.			
Medical Conditions Generally Aggravated by Exposure: There are no known health hazards associated with this material when used as designed. It is recommended employees wash thoroughly after handling the material. Wash before and eating, smoking, drinking or using restroom facilities. Avoid breathing dusts.			
Emergency and First Aid Procedures: Skin: No special treatment required. May cause mechanical irritation. Vacuum or brush dusts from skin. Eyes: May cause mechanical irritation. Open eyelids and hold back while flushing with water for at least 15 minutes. Seek medical attention. Ingestion: No special treatment required. Inhalation: Remove victim to fresh air. If victim has stopped breathing, administer artificial respiration and seek immediate medical attention.			

Section VII – Transport information

This material used in the heelift boot is not hazardous as defined by 49 CFR 172.101 Proper Shipping Name: Heelift Suspension Boots UPN: Hazard Class Number: Not applicable Packing Group: Not applicable Marine Pollutant: Marine Pollutants regulations not applicable to this material or product. Transport Canada Transportation of Dangerous Goods Regulations: Not Considered dangerous goods.	
Other Information: This information is furnished in good faith, without warranty, expressed or implied, except that it is accurate to the best knowledge of DM Systems, Inc The information contained in this document is related on to the specific material designated herein. DM Systems, Inc., assumes no liability for the accuracy or completeness of the information contained herein.	* U.S.G.P.O.: 1986 - 491 - 529/45775

Compression Set 90% 10 % max
Compression Modules 1.9

ASTM D 3574 – Test E – Tension Test

Tension Strength: 12.1 psi
Elongation: 119%

ASTM D 3574 – Test F – Tear Resistance Test

Tear Strength: 1.0 lbs inch min

ASTM D 3574 – Test C – Compression Force Deflection @ 50%

Compressed Load @ 50%: 0.396 psi

CALIFORNIA TECHNICAL BULLETIN 117 – Section A – Part 1 – Resilient Cellular Materials

Meets or exceeds FR additive will not dissipate with washing of foam product.

Regulatory information:

SARA:	302	304	CERCLA		RCRA	CAA
	(TPO)	(RQ)	RQ	313	Code	112@ TO
	no	no	no	no	none	no

Clean Air Act: The product does not contain any Class 1 or Class 2 Ozone depleters.

Clean Water Act: The product is not listed as a Hazardous Substance under the CWA.

This product does not contain any chemicals listed as priority or toxic pollutants under CWA.

Appearance and Odor: Flexible cellular solid. May be any color. Negligible for odor.

Section IV - Fire and Explosion Hazard Data

Flash Point (°F) : Not established

Auto ignition Temperature (°F) :
Not established

Extinguishing Media: Water, foam,
dry chemical, carbon dioxide.

Treat this material as a combustible
solid.

Flammable Limits (UEL/LEL): Not established

Special Fire Fighting Procedures: Fire fighter must wear
NIOSH approved full-faced positive pressure self-contained
breathing apparatus and bunker gear.

Unusual fire and Explosive Hazards: Once ignited foam
can burn with rapid flame spread producing intense heat and
dense smoke and toxic gases (primarily oxides of carbon and
nitrogen). Burning foam may melt into pools or droplets of
burning liquid. Foam may smolder and reignite. Foam dusts
can produce potentially explosive atmospheres.

OSHA 174, Sept. 1985

Section V - Reactivity Data

TSI TESTING SERVICES, INC.
 817 SHOWALTER AVE. • P.O. BOX 2041
 DALTON, GEORGIA 30752-2041
 PHONE: (706) 226-1400 • FAX: (706) 226-6118

TESTING SUMMARY

CLIENT: DM Systems Inc
 1316 Sherman Avenue
 Evanston IL 60201

REPORT NUMBER: 23402R

LAB TEST NUMBER: 1388-4000

DATE: December 31, 2002

SAMPLE ID: Heelift® Suspension Boot

TEST RESULTS:

ASTM D 3574 - Test A - Thickness	1.49 inches
ASTM D 3574 - Test A - Weight	7.99 grams
ASTM D 3574 - Test A - Density	1.28 lbs/ft ³
ASTM D 3574 - Test H - Resilience (Ball) Test	35.5%
ASTM D 3574 - Test B2 - Indentation Force Deflection	0.2972 psi
ASTM D 3574 - Test D - Compression Set	Initial Thickness: 1.459 inches Final Thickness: 1.421 inches Compression Set: 2.6%
ASTM D 3574 - Test E - Tension Test	Tension Strength: 12.1 psi Elongation: 119%
ASTM D 3574 - Test F - Tear Resistance Test	Tear Strength: 3.55 newtons/meter (24.4 lbs/ft)
ASTM D 3574 - Test C - Compression Force Deflection @ 50%	Compressed Load @ 50%: 0.396 psi
CALIFORNIA TECHNICAL BULLETIN 117 - Section A - Part 1 - Resilient Cellular Materials RE: 4/1/03	Pass

Testing Services, Inc.


 Erle Miles, President

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