Barnstead International

Apogent

CULTURE INCUBATOR
TYPE 37900

OPERATION MANUAL
AND PARTS LIST
SERIES 379

Models:
I37925
I37924
I37920-26

LT379X2 • 2/4/04

*Serial Number*_____

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IMPORTANT INFORMATION

This manual contains important operating and safety information. The user must carefully read and understand the contents of this manual prior to the use of this equipment.

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Safety Information

Alert Signals



Warning
Warnings alert you to a possibility of personal injury.



Caution
Cautions alert you to a possibility of damage to the equipment.



Note
Notes alert you to pertinent facts and conditions.

Your Thermolyne Culture Incubator has been designed with function, reliability, and safety in mind. It is the user's responsibility to install it in conformance with local electrical codes. For safe operation, please pay attention to the alert boxes throughout the manual.

Warnings

To avoid electrical shock, always:

1. Use a properly grounded electrical outlet of correct voltage and current handling capacity.

2. Disconnect from the power supply prior to maintenance and servicing.

To avoid personal injury:

1. Do not use in the presence of flammable or combustible materials; fire or explosion may result. This device contains components which may ignite such materials.

2. "Caution: Hot Surface. Avoid Contact." The interior surfaces of this incubator will become hot during use.

3. Refer servicing to qualified personnel.

Please note the following warning:

THIS WARNING IS PRESENTED FOR COMPLIANCE WITH CALIFORNIA PROPOSITION 65 AND OTHER REGULATORY AGENCIES AND ONLY APPLIES TO THE INSULATION IN THIS PRODUCT. THIS PRODUCT CONTAINS REFRACTORY CERAMIC, REFRACTORY CERAMIC FIBER OR FIBERGLASS (GLASS WOOL) INSULATION WHICH CAN PRODUCE RESPIRABLE FIBERS AND DUST WHEN HANDLED. THESE FIBERS OR DUSTS CAN CAUSE IRRITATION AND CAN AGGRAVATE PRE—EXISTING RESPIRATORY DISEASE. REFRACTORY CERAMIC INSULATIONS MAY CONTAIN OR MAY FORM CRYSTALLINE SILICA (CRYSTOBALITE) WHICH MAY CAUSE LUNG DAMAGE (SILICOSIS).

THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) HAS CLASSIFIED REFRACTORY CERAMIC FIBER AND FIBERGLASS AS (2B) POSSIBLY CARCINOGENIC. IARC HAS CLASSIFIED CRYSTALLINE SILICA AS (2A) PROBABLY CARCINOGENIC.

The insulating materials are located in the door, the hearth collar, in the chamber of the product or the top plate assembly. Tests performed by the manufacturer indicate that there is no significant risk of exposure to dust or respirable fibers resulting from operation of this equipment under normal conditions. However, there may be a risk of exposure to respirable dusts or fibers when repairing or maintaining the insulating materials, or when otherwise disturbing the materials in a manner which causes release of dust or fibers therefrom. Through the use of proper handling procedures you can work safely with these insulating materials and minimize any exposure. Accordingly, before you repair or replace any insulating materials, or perform any other servicing on this product which could disturb or cause exposure to dust from insulating materials, you should consult the appropriate Material Safety Data Sheets (MSDS's) for such products with respect to proper handling and appropriate protective equipment. For additional MSDS's, or additional information concerning the handling of refractory ceramic products, please contact the Customer Service Department of Barnstead International.

Introduction

Intended Use

Dry heat incubation of inoculated media in the microbiology laboratory.

Function

To provide a controlled temperature, dry heat environment from 30°C to 65°C.

Principles of Operation

A bimetallic thermostat energizes a resistant heating element which is in contact with the thermally conductive chamber. Turning of the adjustment knob located at the rear increases or decreases the distance between the contact points which enables the user to adjust temperature between 30°C and 65°C.

Specifications

Model	Volts	Hz	Watts	Amps
I37925	120	50/60	50	.42
I37920-26	220	50/60	50	.32
I37924	100	50/60	50	.50

Chamber Size	Exterior Dimensions	Operating Range
10"W X 6-3/4"H X 8"D	12-3/8"W X 10-3/4"H X 12-7/8"D	30°C to 65°C

	30°C	**37°C**	**56°C**	**65°C**
Temperature Stability:	±0.15°C	±0.15°C	±0.15°C	±0.25°C
Temperature Uniformity (unloaded chamber):	±0.35°C	±0.6°C	±1.1°C	±1.35°C
Heatup Time from a Cold Start (unloaded):	90 min.	95 min.	105 min.	140 min.
Recovery Time:	19 min.	23 min.	41 min.	40 min.

Thermometer Supplied: see specifications below.

Ambient Operating Range: 17°C to 27°C

General Laboratory Thermometer Specifications:
12" long, 76mm immersion, -20 to 110°C, 1°C Subdivisions, total indication accuracy ± 1.5°C.

During shipment, filling liquid may become separated in capillary or bubble may form in bulb. Unite liquid by immersing bulb in a mixture of ice, salt and water. After liquid has receded into bulb, remove thermometer from cooling bath. Hold in vertical position and lightly tap bulb against palm of hand or soft pad to disperse any bubbles. Keep in vertical position until liquid has expanded into lower part of capillary.

The following test data is given for your information:
Test Data #1—Eleven Mueller-Hinton 105mm plates were placed in the rear left corner of the incubator. A probe was centered in the media in the inverted top plate. A plate was also located on the bottom right front corner containing a probe centered in the media. A Fluke 2200A NIST traceable recorder was used to scan the temperature of both probes in five minute intervals. Incubator temperature was set at 39.75°C in a room temperature of 24-25°C. Uniformity reading was ±0.25°C and temperature stability was ±0.15°C over the one hour period.

Test Data #2—Six tubes (16 X 150mm) were filled with water and placed in the center floor of the incubator. Each tube contained a probe mounted in the center of the tube. The incubator was set at 44.5°C. A Fluke 2200A recorder (NIST traceable) recorded temperatures over a 12-1/2 hour period at 15 minute intervals. Ambient was maintained between 22-24°C. Stability was reported at ±0.2°C and uniformity at ±0.25°C.

Operation



Warning
To avoid personal injury do not use in the presence of flammable or combustible materials; fire or explosion may result. This device contains components which may ignite such materials.



Caution
"Caution: Hot Surface. Avoid Contact." The interior surfaces of this incubator will become hot during use.

Insert the thermometer to the 76mm immersion line through the grommet located at the top center of the incubator. Turn the incubator around to observe the thermostat adjustment knob located at the center rear. Note the reference scale numbers from one to ten. Sample reference control settings are provided as follows:

30°C	37°C	56°C	65°C
3 setting	4-1/4 setting	8 setting	9-1/2 setting

These settings are approximate and may vary somewhat from unit to unit. Read your thermometer and adjust your control setting. Allow thirty minutes for temperature to stabilize between fine adjustments. You are now ready to incubate.

Calibration Procedures

The thermostat is factory calibrated and cannot be calibrated in the field. It is recommended the thermostat be replaced if your incubator does not operate within specifications. See the parts price list for part number and instructions for replacement procedure.

Checking thermometer calibration: It is a good practice to check your thermometer calibration periodically. Equipment required consists of a water bath controllable within tenths of a degree centigrade and a National Institute for Standards and Technology (NIST) reference thermometer. The supplied thermometer should be placed in the water bath with the NIST thermometer. Compare the reading of the NIST thermometer with the supplied thermometer.

Operational Precautions and Limitations

1. Do not place your incubator directly under air conditioning or heating vents, in sunlight or in front of an open window, as extreme air currents and ambient shifts can cause the incubator to operate out of specifications.

2. Minimize door opening time while incubating to assure your specimens are maintained at the proper incubating temperature.

3. Do not place a thermal barrier over the incubator floor as this can affect incubator performance.

4. A maximum of 10 lbs distributed over entire floor, 1-2 lbs on shelf.

Troubleshooting

PROBLEM	PROBABLE CAUSE	REMEDY
No heat.	Unit not plugged in. Blown fuse.	Plug in unit. Replace fuse and test other components.
	Defective cord set. Faulty control. Open element.	Replace cord set. Replace control. Replace element.
Unstable temperature.	Loose control. Faulty control.	Tighten control. Replace control.
Temperature goes to maximum.	Loose control. Faulty control.	Tighten control. Replace control.

Maintenance and Servicing



Warning
Disconnect from the power supply prior to maintenance and servicing. Refer servicing to qualified personnel.



Caution
"Caution: Hot Surface. Avoid Contact." The interior surfaces of this incubator will become hot during use.



Caution
Only use proper amperage fuse. A blown fuse may indicate other faulty components.



Note
When re-installing knob, control shaft must be fully counterclockwise and pointer knob should be set on #1 of access cover.

Replacing Door Hinge Assembly

a) Remove set screws from stop couplings.

b) Slide rod to right or left and remove.

c) Nylon washers must be placed between door and case when re-installing. Re-assemble.

Removing Door Insulation

a) Insulation is held intact by double faced tape.

b) Old door insulation must be pried out. Remove expended double faced tape.

c) Remove protective paper from tape on replacement insulation and install, aligning recesses in insulation over screw heads.

Replacing Fuse

a) Fuse is located at the bottom rear of the incubator.

b) The fuse holder is spring loaded. Push in and turn to the left. Remove fuse.

c) Install replacement fuse.

Replacing Control

a) Remove control knob.

b) Remove two screws from access cover.

c) Remove two black wires from control.

d) Remove control screw noting presence of spacer under control.

e) Reverse procedure to install replacement control.

Replacing Inner Chamber, Element, Pilot Light and Element Insulation

a) Remove control knob.

b) Remove two screws at the rear near the sides of the case.

c) Pull inner chamber assembly out from the front.

d) Observe extension wire location. Remove four extension wires from inner chamber assembly.

Replacing Element and Observe Location of Element Insulation

a) Gently disconnect control wires and element lead wires.

b) Remove two spring clamps from nylon spacer nuts.

c) Remove plate and insulation.

d) Loosen two screws in rear of inner chamber but do not remove.

e) Remove element.

f) Re-assemble.

Pilot Light Replacement

a) Remove top piece of insulation by gently pulling down from the rear.

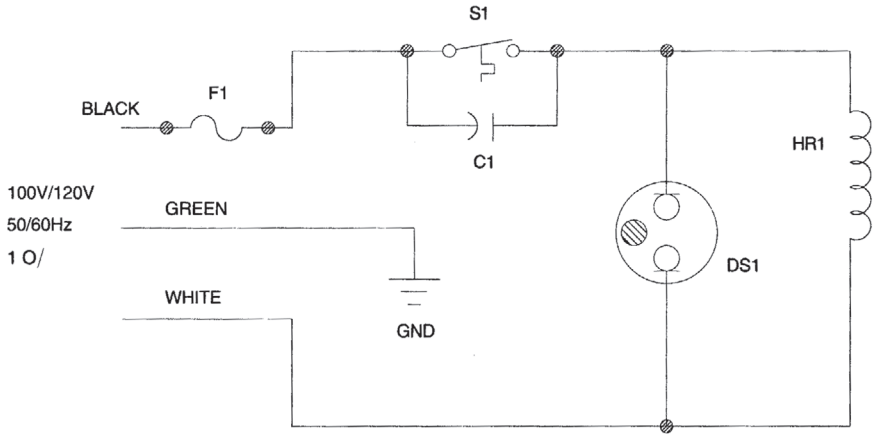
b) Slide pilot light housing toward the leads. Lens will remain in pilot light port.

c) Disconnect wire nut and snip three wire ties.

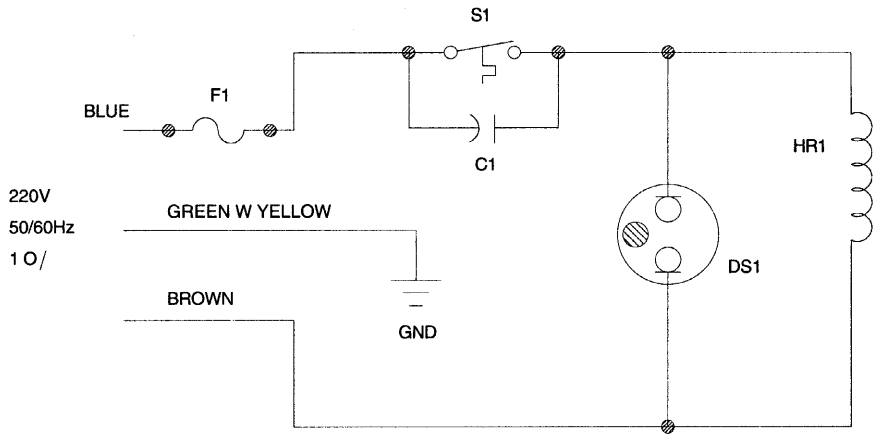
d) To re-install replacement pilot light assembly, snap pilot light housing into pilot light lens.

e) Apply new wire ties—re-assemble.

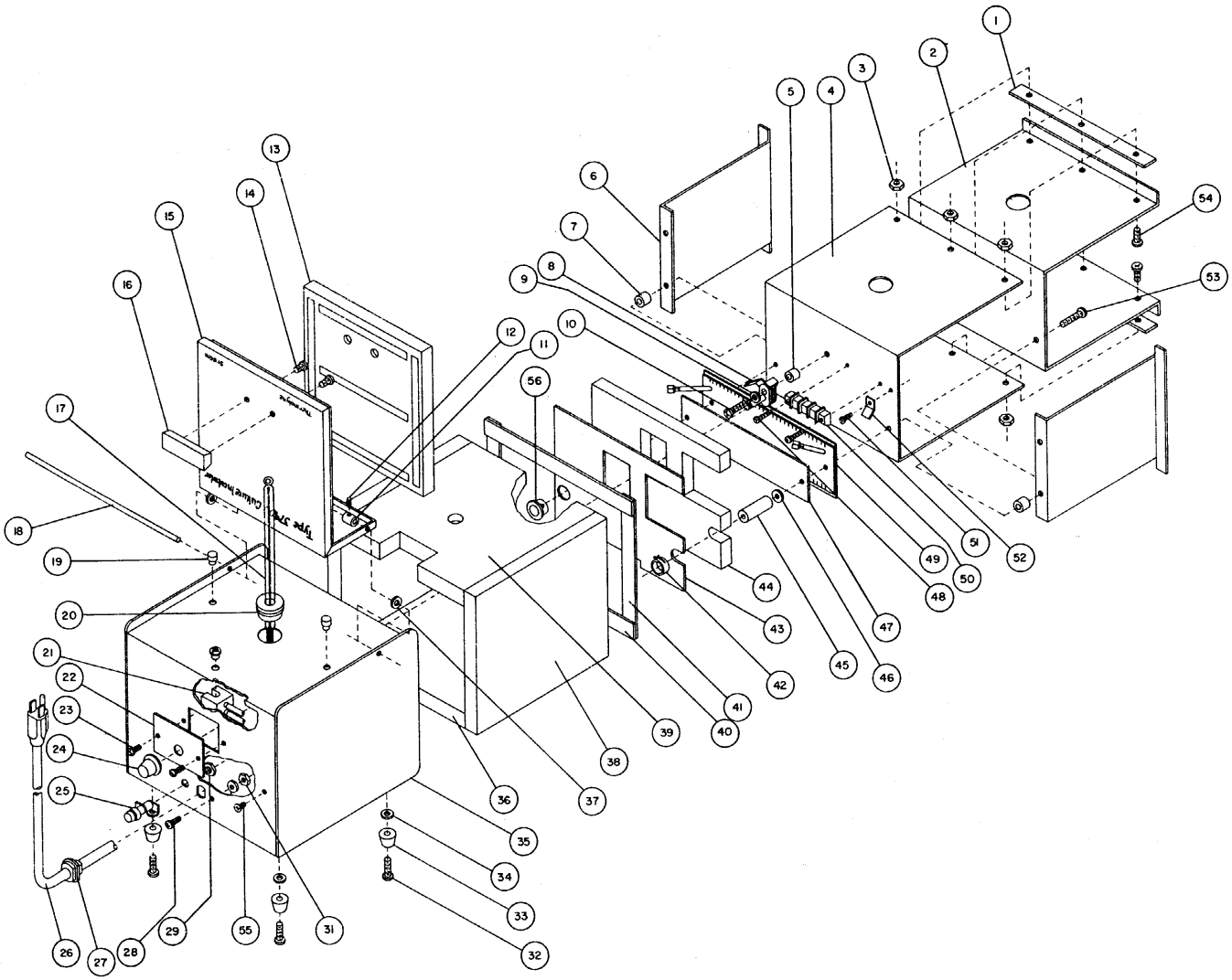
Wiring Diagrams



Part Number	Description	Model No. and BI Part No.	
		I37924	**I37925**
C1	Capacitor, .002mfd, 500V	CAX41	CAX41
DS1	Lamp, cycle light	PLX73	PLX73
F1	Fuse, 1 amp, 100V, .5 amp, 120V	FZX8	FZX16
HR1	Element, 200 ohm 100V, 288 ohm, 120V	EL379X3	EL379X1
S1	Switch, thermostat	CNX98	CNX98



EXPLODED VIEW



Replacement Parts List

Culture Incubator, Series 379 — Models I37290-26, I37925 & I37924

KEY NO.	PART NO.	DESCRIPTION
1	PT374X2	Plate (2 required)
2	BC374X2	Bracket
3	FNX101	Fastener, Nut (6 required)
4	BC374X3	Bracket
5	FW179X1	Fastener, Washer
6	BC374X4	Bracket (2 required)
7	FW374X1	Fastener, Washer (2 required)
8	CNX98	Control
9	FWX72	Fastener, Washer
10	FSX35	Fastener, Screw
11	CU374X1	Coupling (2 required)
12	FSX27	Set Screw (2 required)
13	JN374X1	Door Insulation including 5/TA374X1's; 2/GS374X2's; 2/GS374X1's
14	FSX275	Fastener, Screw (2 required)
15	DL379X6	Silk screened Door
16	HNX10	Handle
17	MEX147	Thermometer
18	SF374X1	Shaft
19	FTX2	Foot (2 required)
20	GMX2	Grommet
21	PL374X1A	Pilot Light, 100, 120V
	PL379X1A	Pilot Light, 220V
22	DL379X7	Dial Plate (Access Cover Silk screened)
23	FSX184	Fastener, Screw (2 required)
24	KBX27	Knob
25	FZX9	Fuse Holder
26	CR374X1	Cord Set, 100, 120V
	CR375X2	Cord Set, 220V
27	SRX16	Strain Relief
28	FSX11	Fastener, Screw
29		Nut Supplied with FZX9
31	FNX101	Fastener, Nut
32	FSX19	Fastener, Screw (4 required)
33	FTX4	Foot (4 required)
34	FWX61	Fastener, Washer (4 required)
35	CS379X2	Case Assembly
36	A	Bottom Insulation
37	JN374X2	Fastener, Washer (2 required)
38	FWX79	Side Insulation (2 required)
39	JN374X4	Top Insulation
40	JN374X3	Plate (2 required)
41	PT374X4	Plate (2 required)
42	PT374X5	Spring Clamp (2 required)
43	FCX32	Plate
44	PT379X1	Back Insulation
45	JC374X1	Fastener, Nut (2 required)
46	FN374X1	Fastener, Washer (2 required)
47	FWX12	Bracket
48	BC188X1	Fastener, Screw (4 required)
49	FSX20	Element Assembly, 120V
	EL379X1	Element Assembly, 220V
	EL379X2	Element Assembly, 100V
50	EL379X3	Terminal Block
51	TRX77	Fastener, Screw
52	FSX184	Terminal, for ground
53	TRX73	Fastener, Screw (2 required)
54	FSX115	Fastener, Screw (6 required)
55	FSX93	Fastener, Screw
56	FSX31	Snap Bushing
57	JSX61	Shelf
	SH379X1	

Items not shown on the exploded view:

	FZX8	Fuse, 100V
58	FZX16	Fuse, 120, 220V
	CA374X1A	Capacitor Assembly, connected to terminal block, 100, 120V
	CA333X1A	Capacitor Assembly, connected to terminal block, 220V
	FCX4	Fastener Cable Tie (3 required)
	WM374X2A	Wire Assembly (black) 100, 120V
	SC379X1A	Wire Assembly (black) 220V
	WM374X4A	Wire Assembly (green/yellow)
	WM374X3A	Wire Assembly (white)
	LT379X2	Operating Instructions/ Parts List
	DLX97	Warning Label

Ordering Procedures

Please refer to the Specification Plate for the complete model number, serial number, and series number when requesting service, replacement parts or in any correspondence concerning this unit.

All parts listed herein may be ordered from the Barnstead International dealer from whom you purchased this unit or can be obtained promptly from the factory. When service or replacement parts are needed we ask that you check first with your dealer. If the dealer cannot handle your request, then contact our Customer Service Department at 563-556-2241 or 800-553-0039. Prior to returning any materials to Barnstead International, please contact our Customer Service Department for a “Return Materials Authorization” number (RMA). Material returned without a RMA number will be refused. Minimum invoice: $25.

Owens/Corning Fiberglass Material Safety Data Sheet

Manufacturer: Owens-Corning Fiberglass Corp.
Fiberglass Tower
Toledo, Ohio 43659

Health Information Phone and Emergency
Phone:
8:00 AM - 5:00 PM (EST): (419) 248-8234
Emergencies only, after 5:00 PM (EST): (419) 248-5330

Product Division: Insulation Operating Division (INSOD)

Technical Product Information Phone:
8:00 AM - 5:00 PM (EST): (419) 248-6575

Date Prepared: June 1, 1991
Supersedes MSDS Dated: July 20, 1987

Product Name(s): Attic Blanket, Sound Attenuation Batts, Sonobatts, Flame Spread 25, FS25, Extended Flange FS25, FS25 Pin Perf Residential/Commercial Insulation, Metal Framing Insulation, Metal Framing Batts, Wall Insulation, Insulation Batts, Masonry Wall Insulation, Sidewall Batt Insulation, Cathedral Batt Insulation, Water Heater Blanket, Water Heater Top Insulation, Pipe Wrap Insulation, Multi-purpose Insulation, Faced Duct Wrap Insulation, Thermaglas, Advanced Thermacube Plus, Type YM, Standard Blend, Residential Bldg., Sill Sealer, Noise Barrier Batts, Curtain Watt, Glass Lath®, Shaft Wall, Commercial Grade Duct Wrap, Unfaced Duct Wrap, All Service Faced Duct Wrap, Duct Board, Mfg. Hsng. Duct Bd., Dishwasher, Equip. & Appliance, Lydall, Refrigeration, Molding Media P-80 Basic, WCI Refrigeration, WCI Freezer, Flexible Concrete Curing, Flexible Type 75 AF-FDM, Formboard, Cold Storage Wall, Hullboard, Flexible Marine, Acoustical Backing Board, Metal Building (all types), Wide Flute, Roof Insulation, Warm-N-Dri®, Manufactured Housing Insulation

Section 1 - Component Data

Hazardous Ingredients:

Common Name	Chemical Name	CAS Number	% Composition	OSHA-PEL	ACGIH-TLV	Other
Fiberglass Wool	Fibrous Glass	65997-17-3	85-96	a.	10mg/M^3 8-hr TWA	3 x 10^6 fiber/M^3 10-hr TWA (NIOSH-REL)

Nonhazardous Ingredients:

Cured Phenol/formaldehyde binder solids	25104-55-6	4-15	.....None Established.....	

a. OSHA has not yet established a PEL for fibrous glass. OSHA considers it to be a "particulate not otherwise regulated" (PNOR) with a PEL of 5 mg/M3 for the respirable dust fraction, and 15 mg/M3 for the total dust fraction, both as an 8-hr TWA.

Section 2 - Emergency and First-Aid Procedures

Inhalation: Move individual to fresh air. Seek medical attention if irritation persists.

Skin Contact: Wash with mild soap and running water. Use a washcloth to help remove fibers. To avoid further irritation, do not rub or scratch irritated areas. Rubbing or scratching may force fibers into the skin. Seek medical attention if irritation persists.

Eye Contact: Flush with flowing water for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion: N.A. (Not Applicable)

Section 3 - Fire and Explosion Data

Flash Point (°F): N.A. (Not Applicable)
Auto Ignition Temperature (°F): N.A.
Extinguishing Media: Water, Foam, Dry Chemical
Method Used: N.A.
Flammability Limits (%): LEL: N.A. UEL: N.A.
Special Fire-Fighting Instructions: In a sustained fire, self-contained breathing apparatus should be worn.
Unusual Fire and Explosion Hazards: The facing on kraft paper and foil faced products will burn and should not be left exposed. Special care should be taken when working close to the facing with an open flame. Vinyl faced products in fire conditions may give off hydrogen chloride, a highly irritating and toxic gas. Evacuate the building immediately.

Section 4 - Health Hazard Data

Primary Routes of Exposure: Inhalation and skin contact.

Acute:
- Inhalation: Inhalation of dusts and fibers may result in irritation of the upper respiratory tract (mouth, nose, and throat).
- Skin Contact: Skin contact with dusts and fibers may product itching and temporary mechanical irritation.
- Eye Contact: Eye contact with dusts and fibers may produce temporary mechanical irritation.
- Ingestion: Temporary mechanical irritation of the digestive tract. Observe individual. If symptoms develop, consult a physician.

Chronic: See carcinogenicity section below. There are no other known health effects associated with chronic exposure to this product.

Carcinogenicity:

Hazardous Ingredients:	Listed By:	ACGIH	IARC	NTP	OSHA
Fiberglass Wool		No	Yes	No	No

IARC: The International Agency for Research on Cancer (IARC) in June, 1987, classified fiberglass wool as a possible cancer causing agent to humans (Group 2B). This classification was based on a combined evaluation of published human and animal studies. The human data included large scale mortality studies of U.S. and European fiberglass wool factory workers. IARC concluded that the human studies did not provide sufficient evidence that fiberglass wool caused cancer in human. The classification of fiberglass wool as a possible carcinogen to humans was substantially based on experimental animal studies in which they were exposed to wool glass fibers through non-natural routes, such as injection or implantation. IARC regards it as prudent to treat a material for which there is sufficient evidence of carcinogenicity to animals as if it is a possible carcinogen in humans.

Additional Information: Animal inhalation experiments in which laboratory animals were exposed to large quantities of glass fiber have not resulted in a positive association between glass fibers and lung cancer. A small study of Canadian glass wool workers reported a statistically significant increase in lung cancer mortality.

Large scale studies published in 1987 which examined the mortality rates of U.S. and European fiberglass wool factory workers found no statistically significant difference in lung cancer rates between those workers and the populations in their local or regional communities. A 1990 update of the U.S. cohort reported a small statistically significant excess for respiratory cancer in workers when compared with populations in their local communities. While the overall mortality rates in these mortality studies were slightly raised and did increase with time since the first exposure, the increases were not related to duration of exposure or to an estimated time weighted measure of exposure. An expanded study is investigating other possible factors.

California Prop 65 Statement: Warning: Contains fiberglass wool. Possible cancer hazard. To avoid this possi-

ble cancer hazard, minimize breathing fiberglass wool dust.
Medical Conditions Aggravated by Exposure: Persons with a history of chronic respiratory or skin conditions that are aggravated by mechanical irritants may be at increased risk for worsening their condition from exposure to this product.

Section 5 - Employee Protection

Ventilation: General dilution ventilation and/or local exhaust ventilation should be provided, as necessary, to maintain exposures below PEL's or TLV's. Dust collection systems should be utilized in operations involving high speed cutting/machining, such as routing, and may be required in other operations involving power tools.

Respiratory Protection: Appropriate respiratory protection should be used in accordance with your company's respiratory protection program and OSHA regulations under 29 CFR 1910.134. A properly fitted NIOSH or MSHA approved air purifying respirator such as the 3M Model 8710 or Model 9900 (in high humidity environments) or equivalent should be used when working with fiberglass wool products under the following conditions:

1. installing loosefill;
2. in any confined or poorly ventilated space;
3. fabrication involving power tools;
4. any installation operation or fabrication operation which creates a dusty working environment.

Eye Protection: Safety glasses, goggles or face shields should be worn whenever fiberglass materials are handled.

Protective Clothing: Wear loose fitting, long sleeved shirt that covers to the base of the neck, and long pants. Skin irritation from exposure to fiberglass is known to occur chiefly at pressure points such as around the neck, wrist, and waist. Wear gloves when handling product.

Work/Hygienic Practices: Handle in accordance with good industrial hygiene and safety practices:

- Avoid unnecessary exposures to dusts and fibers
- Remove fibers from the skin after exposure
- Be careful not to rub or scratch irritated areas. Rubbing or scratching may force the fibers into the skin. The fibers should be washed off. Use of barrier creams can, in some instances, be helpful.
- Use vacuum equipment to remove fibers and dusts from clothing. Compressed should never be used. Always wash work clothes separately and wipe out the washer/sink in order to pre vent loose glass fibers from getting on other clothes.
- Keep the work area clean of dusts and fibers generated during fabrication. Use vacuum equipment to clean up dusts and fibers. Avoid sweeping or using compressed air as the techniques resuspend dusts and fibers into the air.
- Have access to safety showers and eye wash fountains.

Section 6 - Reactivity Data

Stability (Conditions to Avoid): Stable (None)
Incompatibility (Materials to Avoid): None
Hazardous Decomposition Products: Facing and binder burns or decomposes in a fire. Primary combustion products are carbon monoxide, carbon dioxide and water. Vinyl faced products will emit hydrogen chloride in a fire. Emission of hydrogen chloride begins at 525°F with faster emission as the temperature rises.
Hazardous Polymerization: Will not occur.

Section 7 — Storage Precautions

Precautions to be Taken in Handling and Storage: Insulation should be stored in a dry place. Faced material

should be stored well away from sources of ignition.

Section 8 — Physical Data

Melting Point: NA (Not applicable)
Specific Gravity (H2O=1): ND (Not determined)
Vapor Pressure (mmHg @ 20°C): NA
Evaporative Rate (Ethyl Ether=1): NA

Boiling Point (°F): NA
Percent Volatile by Volume: NA
Vapor Density (Air=1): NA
Solubility in Water: Insoluble
ph: NA

Appearance and Odor: Pink, yellow or tan insulation which may have faint resin odor. Some products have a vinyl, kraft paper, foil or polypropylene facing.

Section 9 — Environmental Protection

Action to Take for Spills (Use Appropriate Safety Equipment): NA
Waste Disposal Method: Dispose in accordance with federal, state and local regulations. The primary method of disposal is in a municipal or industrial landfill.
EPA Hazardous Waste Number: This material is not regulated under the "RCRA" hazardous waste regulations.

Section 10 — Shipping Information

DOT Shipping Description: NA (Not applicable)
Hazard Classification: (Primary) Nonhazardous
EPA Hazardous Substance: NA
Packaging Requirements (49CFR): (Specific) NA
Maximum Net Quantity in One Package:
(Cargo only aircraft) NA
IATA Packaging Group: NA
Additional Information: None

ID Number: None IMO Class Number: NA
Label(s) Required (if not excepted): NA

(Secondary) NA
STCC Number: NA

RQ Value: NA
(Exceptions) None

(Passenger aircraft) NA
Freight Description: NA

Section 11 — Additional Information

SARA Title III Hazard Categories and Lists:

Categories:

Acute Health:	Yes
Chronic Health:	Yes
Fire Hazard:	No
Pressure Hazard:	No
Reactivity Hazard:	No

NPCA - HMIS Rating:
Health (acute): 1
Flammability: 0
Reactivity: 0
Personal Protection: Must be supplied by user depending on use conditions.

SARA III Listings:
Sec. 302 (Sec. 304 reportable), Extremely Hazardous Substances: None
CERCLA Hazardous Substances (Sec. 304 reportable): None
Sec. 313, Toxic Chemicals: None

NFPA Rating:

Health:	2
Flammability:	2 (facing, packaging)
Reactivity:	0
Unusual Hazards:	None

One Year Limited Warranty

Barnstead International ("BARNSTEAD") warrants that if a product manufactured by Barnstead shall be free of defects in materials and workmanship for one (1) year from the first to occur of (i) the date the product is sold by BARNSTEAD or (ii) the date the product is purchased by the original retail customer (the "Commencement Date"). Except as expressly stated above, BARNSTEAD MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, WITH RESPECT TO THE PRODUCTS AND EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF DESIGN, MERCHANT ABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

An authorized representative of BARNSTEAD must perform all warranty inspections. In the event of a defect covered by BARNSTEAD's warranty, BARNSTEAD shall, as its sole obligation and exclusive remedy, provide free replacement parts to remedy the defective product. In addition, for products sold by BARNSTEAD within the continental United States or Canada, BARNSTEAD shall provide provide free labor to repair the products with the replacement parts, but only for a period of ninety (90) days from the Commencement Date.

BARNSTEAD's warranty provided hereunder shall be null and void and without further force or effect if there is any (i) repair made to the product by a party other than BARNSTEAD or its duly authorized service representative, (ii) misuse (including use inconsistent with written operating instructions for the product), mishandling, contamination, overheating, modification or alteration of the product by any customer or third party or (iii) use of replacement parts that are obtained from a party who is not an authorized dealer of BARNSTEAD.

Heating elements, because of their susceptibility to overheating and contamination, must be returned to the BARNSTEAD factory and if, upon inspection, it is concluded that failure is due to factors other than excessive high temperature or contamination, BARNSTEAD will provide warranty replacement. As a condition to the return of any product, or any constituent part thereof, to BARNSTEAD's factory, it shall be sent prepaid and a prior written authorization from BARNSTEAD assigning a Return Materials Number to the product or part shall be obtained.

IN NO EVENT SHALL BARNSTEAD BE LIABLE TO ANY PARTY FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR ANY DAMAGES RESULTING FROM LOSS OF USE OR PROFITS, ANTICIPATED OR OTHERWISE, ARISING OUT OF OR IN CONNECTION WITH THE SALE, USE OR PERFORMANCE OF ANY PRODUCTS, WHETHER SUCH CLAIM IS BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE), ANY THEORY OF STRICT LIABILITY OR REGULATORY ACTION.

The name of the authorized Barnstead International dealer nearest you may be obtained by calling 1-800-446-6060 (563-556-2241) or writing to:

BarnsteadInternational
an Apogent company
Your Lab Starts Here
ISO 9001 REGISTERED

2555 Kerper Boulevard
P.O. Box 797
Dubuque, Iowa 52001-0797
Phone: 563-556-2241 or 800-553-0039
Fax: 563-589-0516
E-mail: mkt@barnstead.com
www.barnstead.com