Effective: February 2002 EX-1654-2050
Page 1 of 4

Material Safety Data Sheet

Product Name: Sanitary Filter Media Disk Element

Product Part Number: 2050-1

Section I

Material Identity:..... Hovoglas HiPerm Filter Media

Chemical Formula:.....N/A

Manufacturer:..... Hollingsworth & Vose Company Distributor:..... King Engineering Corporation

Emergency Phone Number: 1-508-668-0295

Section II

Hazardous Component: Glass, Fibrous (CAS No. 65997-17-3)

■ Manufacturer's MSDS Attached

The information herein is provided in good faith, but no warranty, either expressed or implied, is made by King Engineering.



Material Safety Data Sheet May be used to comply with OSHA's Hazard Comminication Standard 29 CFR 1910, 1200, Standard must be consulted for specific requirements.

U.S. Department of LaborOccupational Safety and health Administration (Non-Mandatory Form) Form Approved OBM No. 1218-0072



IDENTITY (As Used on Label and List)		Note: Blank spaces are i						
Hovofil HF Grades; Hovoglas: DC-DF, HA-HF, KA- PA-PF Grades; L&LL Grades; R&RR Grades	information is avai	ilabie, trie space	musi de marked	to indicate triat.				
Section I								
Manufacturer's Name		Emergency Telephone N	lumber					
Hollingsworth & Vose Company		(508) 668-0295						
Address (Number, Street, City, State, and Zip Code)		Telephone Number for Information						
112 Washington Street	(508)-668-0295							
East Walpole, MA 02032	Date Prepared							
February 4, 2002								
		Sinature of Preparer (o	ptional)					
Section II – Hazardous Ingredien	-							
Hazardous Components (Specific Chemical Ider	ntity; Common N	Other Limits Name(s)) OSHA PEL	ACGIH TLV	Recommend	ed % (optional)			
Special purpose fiber glass (CAS I	No. 65997-17	7-3) 5 mg/M ^{3*}	1 f/cc***	3 f/cc (NIOS	SH)			
		15 mg/M ³ *		1 f/cc (mfg.))****			
	* Respirable fraction							
	** Total dust							
	*** Respirable fibers							
		**** Manufa	cturers workp	lace exposur	e guideline			
Section III – Physical/Chemical C	haracteris	tics						
Boiling Point	N/A	Specific Gravity (H ₂	O = 1)		<1			
Vapor Pressure (mm Hg.)	N/A	Melting Point	Melting Point					
Vapor Density (AIR = 1)	N/A	Evaporation Rate			N/A			
		(Butyl Acetate = 1)						
Solubility in Water								
Slight								
Appearance and Odor Fiber glass filter media								
Section IV – Fire and Explosion I	lazard Dat	 а						
Flash Point (Method Used)	Flammat	le Limits LEL		UE	L			
Not applicable.		Not applicable.						
Extinguishing Media Water, CO ₂ .								
Special Fire Fighting Procedures Wear self-contained br	eathing appara	 tus.						
	5 - 1-1							
Unusual Fire and Explosion Hazards								

(Reproduce Locally) OSHA 174, Sept, 1985

Section V - Reactivity Data									
Stability	Unstable		Conditions to Avoid Hot, Poorly ventilated areas.						
	Stable	X							
Incompatibility (Materials to Avoid) None to our knowledge.									
Hazardous Dec	Hazardous Decomposition or Byproducts may yield carbon monoxide and other toxic byproducts.								
Hazardous Polymerization									
	Will Not Occur	X							
Section VI – I	lealth Hazard Da	ita	I						
Route(s) of Ent			ation? Skin? I	ngestion?					
	<u> </u>	Yes		No					
Health Hazards	(Acute and Chronic	c)							
	SEE ATTACHI	ED SH	EET						
Carcinogenicity	:	NTP'	? IARC Moi	nographs?	OSHA Regulated?				
		Yes	Yes	No					
Signs and Sym	ptoms of Exposure								
Irritation of upper respiratory tract, skin, and eyes.					H & V has been asked to supply the attached Material				
					Safety Data Sheet ("MSDS") despite the fact that some				
Medical Conditions Generally Aggraviated by Exposure					of the data contained therein is based on information				
Pre exi	sting upper respiratory	and lu	ng diseases.		supplied to H&V by third parties and the fact that H&V				
					cannot anticipate all of the conditions of use and ap-				
Emergency and	First Aid Procudure	es	Remove to fresh air.		plication with respect to the product described in the				
Flush e	eyes with water, Wash	skin wi	h soap and water.		MSDS. Although H&V has made a good faith effort				
Section VII - Precautions for Safe Handling and Use					in filling out the MSDS and believe the information				
Steps To Be Taken In Case Material Released or Spilled					data and suggestions contained therein to be reliable,				
Pick up Places and vacum dust.				H&V DOES NOT WARRANT OR GUARANTEE THE					
Use Dust Suppressant If Sweeping is Necessary.					COMPLETENESS OR THE ACCURACY OF THE DATA				
Waste Disposal Method					CONTAINED IN THE MSDS H&V DISCLAIMS ANY				
Dispose of in Accordance with Federal, State, and Local Regulations.					AND ALL RESPONSIBILITY FOR ANY USE OF OR				
Precautions To Be Taken in Handling and Storing RELIANCE ON SUCH DATA.									
Store in	n a Cool, Well Ventilate	d Area							
Other Precaution	No.								
Avoid Creating Dust. See Section VIII Below. Avoid Excessive Contact With Skin.									
	Control Measure								
	tection (specify Typ)	e)							
Ventilation	Local Exhaust		Recommended for Cutting Slitting Operations.	g and	Special				
	Mechanical (Gene	eral)	Recommended Other						
Protective Gloves Eye Protection Recommended Goggles or Glasses With Sideshields are Recommeded									
Other Protective Clothing or Equipment Wear Loose, Long-Sleeved Clothing.									
Work/Hygienic Practices									
	Wash Exposed Area With Soap and Warm Water After Handling. Wash Work Clothes Seperately. Rinse Washer Thoroughly.								

Section VI - Health Hazard Data, cont'd

FIBER GLASS

Acute: Fiber glass is an irritant of the upper respiratory tract, skin, and eyes.

Chronic:

- 1. Animal Studies: Animal exposed to a special purpose fiber glass by inhalation in a number of previous studies showed no significant increases in pulmonary tumor incidence. Interim results from a chronic animal inhalation study have shown lung fibrosis and mesothlioma in animals exposed to the special prpose fiber glass. In other fiber glass studies animals exposed by artificial means (e.g., implantation and injection) developed tumors.
- 2. Human studies: In a morbidity study of fiber glass manufacturing workers, published in 1993, the authors concluded that there were no signs of exposure. A 1990 update of a U.S. mortality study reported a small but statistically significant excess in respiratory cancer. There was no relationship, however, with duration of employment or estimated cumulative exposure. This study has been expanded to attempt to identify possible confounding factors.
- 3. <u>Classification</u>: Studies of fiber glass manufacturing workers were judged by IARC in 1987 to be inadequate for carcinogenicity in humans. Based primarily on data from artificial exposure studies in animals, IARC classified fiber glass wool as possibly carcinogenic to humans (Group 2B). NPT lists glass wool (Respirable Size) as a substance reasonably anticipated to be a carcinogen. OSHA has been not classified fiber glass wool.

Section VIII - Control Measures, cont'd

For exposures up to 10 f/cc, use a NIOSH-approved particulate respirator with a filter efficiency of 95% or higher. Above 10 f/cc, use a NIOSH-approved full-face respirator with a filter efficiency of 99% or higher.