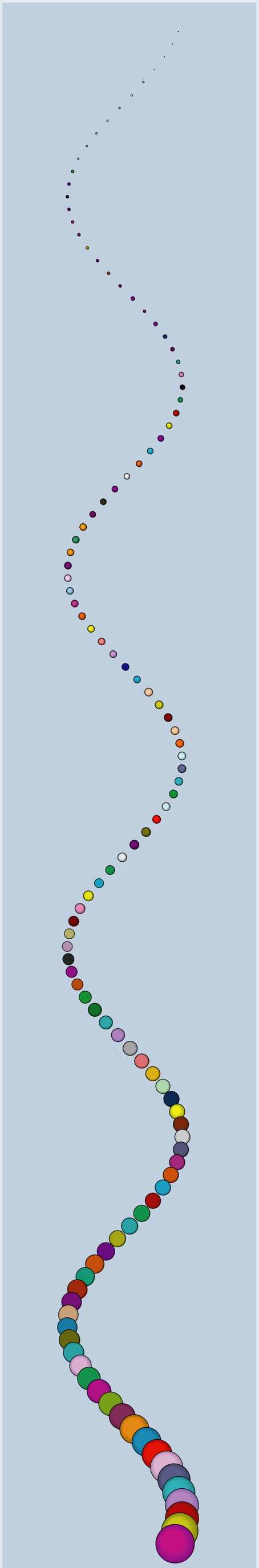
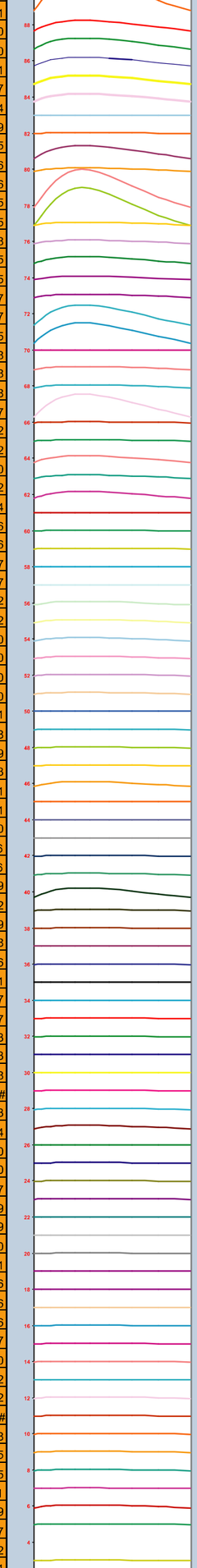
THE WORLD'S MOST WANTED FELONS

Altru-V applies the Power of the V to seek out and destroy the nastiest felons–bacteria, viruses, and molds hiding in your equipment and circulating through your ductwork. Rely on Altru-V to drive out the felons and drive efficiency and performance back into your HVAC system while you enhance your air quality.

ALTRU···V The Optimal Solution for HVAC Maintenance



AIRBORNE PATHOGEN	GROUP	DISEASE Nosocomial	STATUS	SOURCE	SHAPE	TYPE	Ann. Cases	DIAMETER MIN	DIAMETER MAX	LENGTH MIN	LENGTH MAX	DIA microns	Logmean diameter	ASPECT RATIO	CV	STD DEV	POPULATION DISTRIBUTIONS 1 2 3 4 5 6 7 8 9 #
Parvovirus B19	VIRUS	fifth disease, anemia	Contagious	Humans	icosahedral	DNA	rare	0.018	0.026			0.022	0.022	1	0.200	0.154	
Rhinovirus	VIRUS	colds	Contagious	Humans	icosahedral	RNA		0.018	0.028			0.023	0.022	1	0.200	0.162	
Coxsackievirus	VIRUS	colds	Contagious	Humans	spherical	RNA		0.024	0.03			0.027	0.027	1	0.200	0.197	
Echovirus	VIRUS	colds	Contagious	Humans	icosahedral	RNA		0.025	0.03			0.028	0.027	1	0.200	0.201	
Hantavirus	VIRUS	Hantavirus	Non	rodents	spherical	RNA	44	0.058	0.063			0.060	0.060	1	0.200	0.358	
Togavirus	VIRUS	rubella (German measles)	Contagious	Humans	icosahedral	RNA	3000	0.05	0.075			0.063	0.061	1	0.200	0.362	
Reovirus	VIRUS	colds	Contagious	Humans	icosahedral	RNA		0.074	0.076			0.075	0.075	1	0.200	0.403	
Adenovirus	VIRUS	colds	Contagious	Humans	icosahedral	DNA		0.07	0.09			0.080	0.08	1	0.200	0.414	
Orthomyxovirus - Influenza	VIRUS	flu	Contagious	Humans	helical	RNA	200000	0.08	0.12			0.10	0.10	1	0.200	0.456	
Coronavirus	VIRUS	colds	Contagious	Humans	helical?	RNA		0.08	0.13			0.11	0.10	1	0.200	0.464	
Morbillivirus	VIRUS	measles (rubeola)	Contagious	Humans	helical?	RNA	20000	0.095	0.145			0.12	0.12	1	0.200	0.493	
Varicella-zoster	VIRUS	chickenpox	Contagious	Humans	icosahedral	DNA		0.12	0.2			0.16	0.15	1	0.200	0.548	
Arenavirus - Junin	VIRUS	hemmorhagic fever	Contagious	rodents	helical	RNA	rare	0.05	0.3			0.18	0.122	1	0.200	0.501	
Arenavirus - Machupo	VIRUS	hemmorhagic fever	Contagious	rodents	helical	RNA	0	0.05	0.3			0.18	0.122	1	0.200	0.501	
Arenavirus - Lassa	VIRUS	Lassa fever	Contagious	rodents	helical	RNA		0.05	0.3			0.18	0.122	1	0.200	0.501	
Filovirus - Marburg	VIRUS	hemmorhagic fever	Contagious	rodents	helical	RNA	rare	0.05	0.3			0.18	0.122	1	0.200	0.501	
Parainfluenza	VIRUS	flu	Contagious	Humans	helical	RNA		0.15	0.29			0.22	0.21	1	0.200	0.608	
Respiratory Syncytial Virus	VIRUS	pneumonia	Contagious	Humans	helical?	RNA		0.14	0.3			0.22	0.20	1	0.200	0.604	
Poxvirus - Variola	VIRUS	smallpox (extinct)	Contagious	Humans	complex	DNA		0.15	0.3			0.23	0.21	1	0.200	0.611	
Poxvirus - Vaccinia	VIRUS	cowpox	Non	Agricultural	complex	DNA		0.2	0.25	0.25	0.3	0.23	0.22	1.22	0.200	0.621	
Monkeypox	VIRUS	monkeypox	Contagious	Monkeys	complex	DNA		0.2	0.25	0.25	0.3	0.23	0.22	1.22	1.200	3.729	
Paramyxovirus	VIRUS	mumps	Contagious	Humans	helical?	RNA	10000	0.15	0.31			0.23	0.22	1.00	0.200	0.614	
Francisella tularensis	BACTERIA	tularemia	Non	wild animals	pleo. rod	gram-		0.125	0.275	0.2	0.7	0.20	0.19	2.25	0.096	0.280	
Bordetella pertussis	BACTERIA	whooping cough	Contagious	Humans	ovoid	gram-	2000	0.2	0.3	0.5	1	0.25	0.24	3.00	0.175	0.560	
Mycoplasma pneumoniae	BACTERIA	pneumonia	Contagious	Humans	pleomorphic	no wall		0.2	0.3			0.25	0.24	1.00	0.200	0.640	
Chlamydia pneumoniae	BACTERIA	pneumonia, bronchitis	Contagious	Humans	spherical	gram-		0.2	0.4			0.30	0.28	1.00	0.096	0.321	
Chlamydia psittaci	BACTERIA	psittacosis	Non	Birds	spherical	gram-	120	0.2	0.4	0.4	1	0.30	0.28	2.33	0.096	0.321	
Klebsiella pneumoniae	BACTERIA	opportunistic infections	Endogenous	Environmental	ovoid	gram-	1488	0.3	0.5			0.40	0.39	1.00	0.175	0.640	
Haemophilus influenzae	BACTERIA	meningitis	Contagious	Humans	rods	gram-		0.2	0.3	0.5	2	0.43	0.24	2.92	0.175	0.616	
Coxiella burnetii	BACTERIA	Q Fever	Non	Cattle, sheep		gram-		0.45	0.55			0.50	0.50	1.00	0.096	0.375	
Pseudomonas aeruginosa	BACTERIA	opportunistic infections	Contagious	Environmental	rods	gram-	2626	0.3	0.8	1	3	0.57	0.49	3.51	0.080	0.314	
Pseudomonas pseudomallei	BACTERIA	opportunistic infections	Non	Environmental	rods	gram-	rare	0.3	0.8	1	3	0.57	0.49	3.51	0.080	0.314	
Actinomyces israelii	BACTERIA	actinomycosis	Endogenous	Humans	rods	gram+		0.2	1	2	5	0.60	0.45	5.83	0.139	0.626	
Legionella parisiensis	BACTERIA	pneumonia(?)	Non	Environmental	rods	gram-		0.3	0.9		2	0.60	0.52	3.33	0.175	0.691	
Legionella pneumophila	BACTERIA	LD, Pontiac fever	Non	Environmental	rods	gram-	40	0.3	0.9		2	0.60	0.52	3.33	0.175	0.691	
Saccharomonospora viridis	BACTERIA	Farmer's Lung	Non	Agricultural	spores	Actinomycete		0.3	0.9	0.6	1.5	0.60	0.52	1.75	0.200	0.790	
Thermomonospora viridis	BACTERIA	Farmer's Lung, HP	Non	Agricultural	spores	Actinomycete		0.3	0.9	0.6	1.5	0.60	0.52	1.75	0.200	0.790	
Cardiobacterium	BACTERIA	opportunistic infections	Endogenous	Humans	rods	gram-		0.5	0.75	1	3	0.63	0.61	3.20	0.096	0.401	
Micropolyspora faeni	BACTERIA	Farmer's Lung	Non	Agricultural	spores	Actinomycete		0.66	0.72			0.69	0.7	1.00	0.200	0.847	
Thermoactinomyces sacchari	BACTERIA	bagassosis, HP	Non	Agricultural	spores	Actinomycete		0.6	0.8	1	3	0.70	0.69	2.86	0.200	0.854	
Alkaligenes	BACTERIA	opportunistic infections	Endogenous	Humans	rods	gram-	rare	0.5	1	0.5	2.6	0.75	0.71	2.07	0.096	0.409	
Yersinia pestis	BACTERIA	pneumonic plague	Contagious	Rodents	rods	gram-	40	0.5	1	1	2	0.75	0.71	2.00	0.175	0.745	
Pseudomonas cepacia	BACTERIA	nonrespiratory airborne(?)	Non	Environmental	rods	gram-		0.3	0.8	1.4	4	0.77	0.49	3.51	0.080	0.336	
Pseudomonas mallei	BACTERIA	opportunistic infections	Non	Environmental	rods	gram-		0.3	0.8	1.4	4	0.77	0.49	3.51	0.080	0.336	
Enterobacter cloacae	BACTERIA	nonrespiratory airborne(?)	Contagious	Humans	spherical	gram+	213964	0.6	1			0.80	0.77	1.00	0.139	0.605	
Enterococcus	BACTERIA	nonrespiratory airborne(?)	Contagious	Humans	spherical	gram+	213963	0.6	1			0.80	0.77	1.00	0.139	0.605	
Neisseria meningitidis	BACTERIA	meningitis	Endogenous	Humans	spherical	gram-	510	0.6	1			0.80	0.77	1.00	0.096	0.418	
Streptococcus faecalis	BACTERIA	nonrespiratory airborne(?)	Contagious	Humans	spherical	gram+	213962	0.6	1			0.80	0.77	1.00	0.139	0.605	
Streptococcus pyogenes	BACTERIA	scarlet fever, pharyngitis	Contagious	Humans	spherical	gram+	213962	0.6	1			0.80	0.77	1.00	0.139	0.605	
Mycobacterium kansasii	BACTERIA	cavitary pulmonary	Non	unknown	rods	gram+	rare	0.2	0.6	1	5	0.86	0.35	3.51	0.175	0.727	
Mycobacterium tuberculosis	BACTERIA	TB	Contagious	Humans	rods	gram+	21000	0.2	0.6	1	5	0.86	0.35	3.51	0.175	0.727	
Streptococcus pneumoniae	BACTERIA	pneumonia, otitis media	Contagious	Humans	spherical	gram+	500000	0.8	1			0.90	0.89	1.00	0.139	0.625	
Staphylococcus aureus	BACTERIA	opportunistic infections	Endogenous	Humans	spherical	gram+	2750	0.7	1.2			0.95	0.92	1.00	0.139	0.628	
Staphylococcus epidermis	BACTERIA	nonrespiratory airborne(?)	Endogenous	Humans	spherical	gram+	2751	0.7	1.2			0.95	0.92	1.00	0.139	0.628	
Corynebacteria diphtheria	BACTERIA	diptheria	Contagious	Humans	rods	gram-	490000	0.3	0.8	1	6	1.00	0.49	3.51	0.175	0.748	
Clostridium tetani	BACTERIA	nonrespiratory airborne(?)	Non	Environmental	spores	Actinomycete		0.8	1.2			1.00	0.98	1.00	0.200	0.917	
Haemophilus parainfluenzae	BACTERIA	opportunistic infections	Endogenous	Humans	rods	gram-		0.8	1.2			1.00	0.98	1.00	0.175	0.802	
Micromonospora faeni	BACTERIA	Farmer's Lung	Non	Agricultural	spores	Actinomycete		0.5	1.5			1.00	0.87	1.00	0.200	0.892	
Moraxella lacunata	BACTERIA	opportunistic infections	Endogenous	Humans	rods	gram-	rare	0.8	1.2	1.5	3	1.00	0.98	2.25	0.096	0.440	
Thermoactinomyces vulgaris	BACTERIA	Farmer's Lung, HP	Non	Agricultural	spores	Actinomycete		0.5	1.5			1.00	0.87	1.00	0.200	0.892	
T. dichotomicus	BACTERIA	Farmer's Lung, HP	Non	Agricultural	spores	Actinomycete		0.5	1.5			1.00	0.87	1.00	1.200	5.354	
Bacillus anthracis	BACTERIA	anthrax	Non	Cattle, sheep	spores	gram+	rare	1	1.25			1.13	1.12	1.00	0.139	0.656	
Nocardia asteroides	BACTERIA	nocardiosis	Non	Environmental	spores	Actinomycete		1	1.25	3	5	1.14	1.12	3.51	0.200	0.956	
Mycobacterium avium	BACTERIA	cavitary pulmonary	Non	Environmental	rods	gram+	rare	1.075	1.325			1.20	1.19	1.00	0.175	0.837	
Mycobacterium intracellulare	BACTERIA	cavitary pulmonary	Non	Environmental	rods	gram+	rare	1.075	1.325			1.20	1.2	1.00	0.175	0.837	
Acinetobacter	BACTERIA	opportunistic infections	Endogenous	Environmental	rods	gram-	147	1	1.5	1.5	2.5	1.25	1.22	1.60	0.096	0.462	
Moraxella catarrhalis	BACTERIA	opportunistic infections	Endogenous	Humans	rods	gram-	rare	1	1.5	2	3	1.25	1.22	2.00	0.096	0.462	
Serratia marcescens	BACTERIA	opportunistic infections	Endogenous	Environmental	rods	gram-	479	1	1.5	2	6	1.25	1.22	3.20	0.115	0.560	
Nocardia brasiliensis	BACTERIA	pulmonary mycetoma	Non	Environmental	spores	Actinomycete		1	2			1.50	1.41	1.00	0.200	0.990	
Nocardia caviae	BACTERIA	nocardiosis	Non	Environmental	spores	Actinomycete		1	2			1.50	1.41	1.00	0.200	0.990	
Phialaphora parasitica	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		1	2	3.5	5	1.50	1.4	2.83	0.200	0.990	
Torulopsis glabrata	FUNGI	torulopsosis (non-resp.)	Non	Environmental	spores	Blastomycetes		1.2	2			1.60	1.5	1.00	1.200	6.051	
Phialaphora repens	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		1.2	1.8	3	4	1.50	1.5	2.33	0.200	0.998	
Exophiala jeanselmei	FUNGI	humidifier water	Non	Environmental	spores	Hyphomycetes		1.5	2.4	3.3	5.9	1.95	1.9	2.36	0.200	1.049	
Phialaphora hoffmannii	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		1.5	2.5	3	3.5	2.00	1.9	1.63	0.200	1.053	
Pneumocystis carinii	Protozoal	pneumocystosis	Non	Environmental	ovoid	Protozoal	rare	1	3			2.00	1.7	1.00	0.200	1.031	
Phialaphora mutabilis	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		1.8	2.5	4	6	2.15	2.1	2.33	0.200	1.071	
Acremonium spp.	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		2	3	4	6	2.50	2.4	2.00	0.200	1.100	
Trichoderma harzianum	FUNGI	allergic alveolitis	Non	Environmental	spores			2.5	2.8	2.8	3.2	2.65	2.6	1.13	0.200	1.116	
Oidiodendron tenuissimum	FUNGI	allergic alveolitis	Non	Environmental	spores			2	3.5			2.75	2.6	1.00	0.200	1.116	
Geomyces pannorum	FUNGI	allergic alveolitis	Non	Environmental	spores			2	4	2	5	3.00	2.8	1.17	0.200	1.129	
Histoplasma capsulatum	FUNGI	histoplasmosis	Non	Environmental	spores	Hyphomycetes	common	1	5			3.00	2.2	1.00	0.200	1.082	
Paecilomyces variotii	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		2	4	3	5	3.00	2.8	1.33	0.200	1.129	
Wallemia sebi	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		2.5	3.5			3.00	3.0	1.00	0.200	1.138	
Emericella nidulans	FUNGI	allergic alveolitis	Non	Environmental	spores	Ascomycetes		3	3.5			3.25	3.2	1.00	0.200	1.156	
Phoma spp.	FUNGI	allergic alveolitis	Non	Environmental	spores	Coelomycetes		2.5	4	6	10	3.25	3.2	2.46	0.200	1.151	
Penicillium notatum	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		2.8	3.8	3	4	3.30	3.3	1.06	0.200	1.157	
Penicillium expansum	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		2.8	3.8	3	4	3.30	3.3	1.06	0.200	1.157	
Aspergillus flavus	FUNGI	aspergillosis	Non	Environmental	spores	Hyphomycetes		2.5	4.5			3.50	3.4	1.00	0.200	1.163	
Aspergillus fumigatus	FUNGI	aspergillosis	Non	Environmental	spores	Hyphomycetes		2.5	4.5			3.50	3.4	1.00	0.200	1.163	
Aspergillus nidulans	FUNGI	aspergillosis	Non	Environmental	spores	Hyphomycetes		2.5	4.5			3.50	3.4	1.00	1.200	6.978	
Aspergillus niger	FUNGI	aspergillosis	Non	Environmental	spores	Hyphomycetes		2.5	4.5			3.50	3.4	1.00	2.200	######	
Aspergillus glaucus	FUNGI	aspergillosis	Non	Environmental	spores	Hyphomycetes		2.5	4.5			3.50	3.4	1.00	0.200	1.163	
Absidia corymbifera	FUNGI	zygomycosis	Non	Environmental	spores	Zygomycetes		2.5	5			3.75	3.5	1.00	0.200	1.174	
Coccidioides immitis	FUNGI	coccidioidomycosis	Non	Environmental	spores	Hyphomycetes		2	6			4.00	3.5	1.00	0.200	1.170	
Trichoderma viride	FUNGI	allergic alveolitis	Non	Environmental	spores			3.6	4.5			4.05	4.0	1.00	0.200	1.200	
Rhizomucor pusillus	FUNGI	allergic alveolitis	Non	Environmental	spores	Zygomycetes		3.5	5			4.25	4.2	1.00	0.200	1.207	
Aureobasidium pullulans	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		4	6	8	12	5.00	4.9	2.00	0.200	1.239	
Candida albicans	FUNGI	nonrespiratory airborne	Non	Environmental	spores	Zygomycetes		4	6			5.00	4.9	1.00	0.200	1.239	
Chaetomium globosum	FUNGI	allergic alveolitis	Non	Environmental	spores			4.8	6.2	5.9	6.8	5.50	5.5	1.15	0.200	1.260	
Cryptococcus neoformans	FUNGI	cryptococcosis	Non	Environmental	spores	Blastomycetes	high	5	6			5.50	5.5	1.00	0.200	1.261	
Stachybotris atra	FUNGI	allergic alveolitis	Non	Environmental	spores	Basidiomycetes		5.1	6.2			5.65	5.6	1.00	0.200	1.266	
Stachybotris chartarum	FUNGI	allergic alveolitis	Non	Environmental	spores	Basidiomycetes		5.1	6.2			5.65	5.6	1.00	0.200	1.266	
Eurotium amstelodami	FUNGI	allergic alveolitis	Non	Environmental	spores	Ascomycetes		4.5	7			5.75	5.6	1.00	0.200	1.266	
Scopulariopsis brevicaulis	FUNGI	onychomycosis	Non	Environmental	spores	Hyphomycetes		5	7	5	8	6.00	5.9	1.08	0.200	1.277	
Sporothrix schenckii	FUNGI	sporotrichosis	Non	Environmental	spores	Hyphomycetes		5	8	10	20	6.50	6.3	2.31	0.200	1.290	
Botrytis cinera	FUNGI	allergic alveolitis	Non	Environmental	spores			5	9	7	14	7.00	6.7	1.50	0.200	1.302	
Mucor plumbeus	FUNGI	mucormycosis	Non	Environmental	spores	Zygomycota		5	10			7.50	7.1	1.00	0.200	1.312	
Rhizopus stolonifer	FUNGI	zygomycosis	Non	Environmental	spores	Zygomycota		4	12			8.00	6.9	1.00	2.200	######	
Cladosporium cladosporioides	FUNGI	chromoblastomycosis	Non	Environmental	spores	Hyphomycetes		5	13			9.00	8.1	1.00	0.200	1.338	
Fusarium solani	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		9	14			11.50	11.2	1.00	0.200	1.405	
Fusarium sporotrichioides	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		9	14			11.50	11.2	1.00	0.200	1.405	
Helminthosporium	FUNGI	allergic alveolitis	Non	Environmental	spores			7.5	8.8	27.5	60	12.47	8.1	3.51	0.200	1.411	
Blastomyces dermatitidis	FUNGI	blastomycosis	Non	Environmental	spores	Hyphomycetes		8	20			14.00	12.6	1.00	0.200	1.429	
Rhodoturula glutinus	FUNGI	allergic alveolitis	Non	Environmental	spores	Blastomycetes		12	16			14.00	13.9	1.00	0.200	1.447	
Alternaria alternata	FUNGI	allergic alveolitis	Non	Environmental	spores	Hyphomycetes		7	18	18	83	14.39	11.2	3.51	0.200	1.432	
Ulocladium botrytis	FUNGI	allergic alveolitis	Non	Environmental	spores			10	20			15.00	14.1	1.00	0.200	1.451	
Ulocladium chartarum	FUNGI	allergic alveolitis	Non	Environmental	spores			10	20			15.00	14.1	1.00	0.200	1.451	
Paracoccidioides brasiliensis	FUNGI	paracoccidioidomycosis	Non	Environmental	spores	Hyphomycetes		6.5	30			18.25	14.0	1.00	0.200	1.448	
Epicoccum nigrum	FUNGI	allergen(?)	Non	Environmental	spores			15	25			20.00	19.4	1.00	0.200	1.514	



Call your sales representative or distributor for more information on UV products from Altru-V.

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