

LIST OF NONRESTRICTED MICROORGANISMS

October 25, 2001

SCIENTIFIC NAME

FUNGI

- Absidia coerulea*
- Absidia corymbifera*
- Absidia ramosa*
- Absidia spinosa*
- Acremonium falciforme*
- Acremonium kiliense*
- Acremonium recifei*
- Acremonium vitis*
- Agaricus bitorquis*
- Agaricus bisporus*
- Agaricus campestris*
- Agaricus* sp. (Portabello mushroom)
- Alternaria alternata*
- Alternaria geophila*
- Apiotrichum humicola*
- Arthrobotrys* - all species in genus
- Aspergillus candidus*
- Aspergillus clavatus*
- Aspergillus cremeus*
- Aspergillus flavipipes*
- Aspergillus flavus*
- Aspergillus fumigatus*
- Aspergillus glaucus*
- Aspergillus nidulans*
- Aspergillus niger*
- Aspergillus ochraceus*
- Aspergillus restrictus*
- Aspergillus terreus*
- Aspergillus ustus*
- Aspergillus versicolor*
- Aspergillus wentii*
- Asteromyces cruciatus*
- Aureobasidium pullulans*
- Auricularia polytricha*

// EXACT CHANGES  
 /Beauveria bassiana GHA / -----  
 // Underline indicates addition

- Bipolaris hawaiiensis*
- Blastomyces dermatitidis*
- Blastoschizomyces capitatus*

SCIENTIFIC NAME

*Boletus californicus*  
*Boletus granulatus*  
*Boletus luteus*  
*Boletus variegatus*  
*Byssochlamys fulva*

*Candida albicans*  
*Candida famata*  
*Candida geochares*  
*Candida glabrata*  
*Candida humicola*  
*Candida kefyr*  
*Candida krusei*  
*Candida lipolytica*  
*Candida lusitaniae*  
*Candida parapsilosis*  
*Candida pseudotropicalis*  
*Candida quilliermondii*  
*Candida rugosa*  
*Candida stellatoidea*  
*Candida tropicalis*  
*Candida zeylanoides*  
*Candelabrella* - all species in genus  
*Chaetomium globosum*  
*Chrysosporium keratinophilum*  
*Chrysosporium liquorum*  
*Chrysosporium pruinatum*  
*Cladosporium bantianum*  
*Cladosporium carrionii*  
*Cladosporium trichoides*  
*Collybia velutipes*  
*Cryptococcus albidus*  
*Cryptococcus gastricus*  
*Cryptococcus huminocola*  
*Cryptococcus laurentii*  
*Cryptococcus luteolus*  
*Cryptococcus neoformans*  
*Cryptococcus terreus*  
*Cryptococcus uniguttulatus*  
*Cunninghamella bertholletiae*  
*Cunninghamella blakesleena*  
*Cunninghamella elegans*  
*Curvularia geniculata*  
*Curvularia lunata*

*Dactylaria* - all species in genus  
*Dactylella* - all species in genus  
*Dendryphiella saliva*  
*Dipodascus uninucleatus*

SCIENTIFIC NAME

*Drechslera hawaiiensis*  
*Drechslera rostrata*  
*Drechslera spicifera*

*Entrophospora columbiana*  
*Epicoccum nigrum*  
*Epidermophyton floccosum*  
*Eremothecium ashbyii*  
*Exophiala dermatitidis*  
*Exophiala jeanselmei*  
*Exophiala spinifera*  
*Exophiala werneckii*  
*Exserohilum mcginnisii*  
*Exserohilum rostratum*

*Filobasidiella neoformans*  
*Fonsecaea compacta*  
*Fonsecaea pedrosoi*

*Geotrichum candidum*  
*Geotrichum penicillatum*  
*Gigaspora margarita*  
*Gliocladium roseum*  
*Glomus brasilianum*  
*Glomus clarum*  
*Glomus deserticola*  
*Glomus etunicatum*  
*Glomus fasciculatum*  
*Glomus intraradices*  
*Glomus monosporus*  
*Glomus mosseae*  
*Gymnoascus reesi*

*Hansenula anomala*  
*Hansenula pollymorpha*  
*Hansenula wingei*  
*Humicola alopallonella*

*Issatchenkia orientalis*

*Lentinus edodes*

*Malassezia furfur*  
*Malassezia pachydermatis*  
*Malbranchea cinnamomea*  
*Malbranchea pulchella*  
*Malbranchea sulfurea*  
*Marasmius oreades*  
*Microsporium* - all species in genus

SCIENTIFIC NAME

*Monosporium apiospermum*  
*Mortierella alpina*  
*Mucor hiemalis*  
*Mucor pusillus*  
*Mucor ramannianus*  
*Mucor ramosissimus*

*Neurospora crassa*  
*Neurospora tetrasperma*  
*Nigrospora oryzae*

*Paecilomyces* - all species in genus  
*Penicillium* - all species in genus  
*Phaeoannellomyces werneckii*  
*Phialophora bubakii*  
*Phialophora parasitica*  
*Phialophora repens*  
*Phialophora richardsiae*  
*Phialophora verrucosa*  
*Phoma glomerata*  
*Phoma hibernica*  
*Phoma oculo-hominis*  
*Phycomyces blakesleeanus*  
*Pichia canadensis*  
*Pichia pastoris*  
*Pisolithus tinctorius*  
*Pleurotus cystidiosus*  
*Pleurotus djamor*  
*Pleurotus ostreatus*  
*Pleurotus sajor-caju*  
*Pseudallescheria boydii*

*Rhizopus stolonifer*  
*Rhodospiridium* - all species in genus  
*Rhodotorula* - all species in genus  
*Riessia semiophora*

*Saccharomyces* - all species in genus  
*Saccharomyces ludwigii*  
*Scedosporium* - all species in genus  
*Scopulariopsis brevicaulis*  
*Scopulariopsis brumptii*  
*Sepedonium* - all species in genus  
*Sordaria fimicola*  
*Sporobolomyces salmonicolor*  
*Sporotrichum pruinosum*  
*Sporothrix schenckii*  
*Stemphylium sarcinaeforme*  
*Syncephalastrum* - all species in genus

SCIENTIFIC NAME

*Stropharia rugosoannulata*

*Torulopsis* - all species in genus

*Trichoderma harzianum*

*Trichoderma virens*

*Trichoderma viridae*

*Trichophyton* - all species in genus

*Trichosporon* - all species in genus

*Trichothecium roseum*

*Ulocladium atrum*

*Varicosporina ramulosa*

*Verticillium graphii*

*Volvariella volvacea*

*Wangiella dermatitidis*

*Yarrowia lipolytica*

*Zygosaccharomyces bailii*

*Zygosaccharomyces bisporus*

*Zygosaccharomyces rouxii*

SLIME MOLD

*Dictyostelium discoideum*

*Physarum polycephalum*

BACTERIA

*Acetobacter aceti*

*Acetobacter oxydans*

*Acetobacter suboxydans*

*Achromobacter fischeri*

*Acidaminococcus fermentans*

*Acidovorax delafieldii*

*Acidovorax facilis*

*Acinetobacter baumannii*

*Acinetobacter calcoaceticus*

*Acinetobacter haemolyticus*

*Acinetobacter lwofii*

*Actinobacillus pleuropneumoniae*

*Actinobacillus suis*

*Actinomadura madurae*

SCIENTIFIC NAME

*Actinomadura pelletieri*  
*Actinomyces odontolyticus*  
*Actinomyces pyrogenes*  
*Aerobacter aerogenes*  
*Aerobacter alroynis*  
*Aerococcus viridans*  
*Aeromonas caviae*  
*Aeromonas hydrophila*  
*Aeromonas sobria*  
*Aeromonas veronii*  
*Alcaligenes acidocaldarius*  
*Alcaligenes acidoterrestris*  
*Alcaligenes cupidus*  
*Alcaligenes cycloheptanicus*  
*Alcaligenes dispar*  
*Alcaligenes eutrophus*  
*Alcaligenes faecalis*  
*Alcaligenes viscolactis*  
*Alcaligenes viscosus*  
*Alteromonas putrefaciens*  
*Arcanobacterium haemolyticum*  
*Arizona hinshawii*  
*Arthrobacter agalis*  
*Arthrobacter citreus*  
*Arthrobacter crystallopoietes*  
*Arthrobacter globiformis*  
*Arthrobacter marinus*  
*Arthrobacter paraffineus*  
*Azotobacter* - all species in genus

*Bacillus* - all species in genus except:

*B. anthracis*  
*Bacteroides asaccharolytica*  
*Bacteroides gingivalis*  
*Bacteroides intermedia*  
*Bacteroides loeschii*  
*Bacteroides distasonis*  
*Bacteroides fragilis*  
*Bacteroides incomminus*  
*Bacteroides levii*  
*Bacteroides melaninogenica*  
*Bacteroides ovatus*  
*Bacteroides succinogenes*  
*Bacteroides thetaiotaomicron*  
*Bacteroides uniformis*  
*Bacteroides ureolyticus*  
*Bacteroides vulgatus*  
*Beggiatoa alba*

SCIENTIFIC NAME

*Beneckea hyperoptica*  
*Bordetella bronchiseptica*  
*Bordetella parapertussis*  
*Bordetella pertussis*  
*Borrelia burgdorferi*  
*Branhamella* (= *Moraxella*) *catarrhalis*  
*Bradyrhizobium* - all species in genus  
*Brevibacterium lipolyticum*  
*Burkholderia cepacia*  
*Butyribacterium rettgeri*

*Campylobacter* - all species in genus  
*Caryophanon latum*  
*Cellulomonas biazotea*  
*Cellulomonas pusilla*  
*Chlamydia* - all species in genus except:  
    *C. psittaci* avian strains  
*Chromatium warmingii*  
*Chromobacterium violaceum*  
*Citrobacter* (all species in genus)  
*Clostridium bifermentans*  
*Clostridium butyricum*  
*Clostridium chauvoei*  
*Clostridium difficile*  
*Clostridium equi*  
*Clostridium felsineum*  
*Clostridium flavum*  
*Clostridium haumanii*  
*Clostridium histolyticum*  
*Clostridium innocuum*  
*Clostridium novyi*  
*Clostridium pasteurianum*  
*Clostridium perfringens*  
*Clostridium ramosum*  
*Clostridium rubrum*  
*Clostridium sordellii*  
*Clostridium sporogenes*  
*Clostridium tertium*  
*Clostridium tetani*  
*Clostridium thermosaccharolyticum*  
*Coccobacillus macrouai*  
*Comamonas testosteroni*  
*Corynebacterium amycolatum*  
*Corynebacterium diptheriae*  
*Corynebacterium haemolyticum*  
*Corynebacterium hoffmanni*  
*Corynebacterium jeikeium*  
*Corynebacterium pseudodiphthericum*  
*Corynebacterium xerosis*

SCIENTIFIC NAME

*Cunninghamella* - all species in genus  
*Cytophaga fermentans*  
*Cytophaga johnsonae*  
*Desulfovibrio desulfuricans*

*Edwardsiella tarda*  
*Eikenella corrodens*  
*Enterobacter* - all species in genus  
*Enterococcus avium*  
*Enterococcus durans*  
*Enterococcus faecalis*  
*Enterococcus faecium*  
*Enterococcus hirae*  
*Erwinia dissolvens*  
*Erysipelothrix* - all species in genus  
*Escherichia coli*  
*Eubacterium lentum*

*Flavobacterium multivorum*  
*Flavobacterium meningosepticum*  
*Flavobacterium odoratum*  
*Fusobacterium mortiferum*  
*Fusobacterium necrophorum*  
*Fusobacterium nucleatum*

*Gardnerella vaginalis*

*Haemophilus ducreyi*  
*Haemophilus influenzae*  
*Haemophilus parahaemolyticus*  
*Haemophilus parainfluenzae*  
*Haemophilus paraphrophilus*  
*Haemophilus parasuis*  
*Haemophilus sommus*  
*Hafnia* - all species in genus  
*Helicobacter* - all species in genus  
*Hydrogenomonas facilis*  
*Hydrogenomonas ruhlandii*  
*Hydrogenophaga flava*  
*Hydrogenophaga palleronii*  
*Hydrogenophaga pseudoflava*  
*Hyphomicrobium neptunium*

*Jonesia* - all species in genus

*Kingella kingae*  
*Klebsiella* - all species in genus  
*Kurthia zopfii*

SCIENTIFIC NAME

*Lactobacillus* - all species in genus

*Lactococcus cremoris*

*Lactococcus lactis*

*Leclercia adecarboxylata*

*Legionella* - all species in genus

*Leptospira* - all species in genus

*Leptotrichia buccalis*

*Leuconostoc citrovorum*

*Leuconostoc cremoris*

*Leuconostoc mesenteroides*

*Listeria* - all species in genus

*Methanobacterium omelianskii*

*Methanomonas methylovora*

*Micrococcus* - all species in genus

*Micromonospora chalcea*

*Micromonospora echinospora*

*Micromonospora fusca*

*Micromonospora parva*

*Micromonospora purpurea*

*Micromonospora vulgaris*

*Moraxella catarrhalis*

*Moraxella ureolytica*

*Moraxella urethralis*

*Moraxella osloensi*

*Morganella morganii*

*Mycobacterium* - all species in genus except:

*M. avium*

*M. bovis*

*M. tuberculosis*

*Mycoplasma laidlawii*

*Myroides odoratus*

*Myxococcus xanthus*

*Neisseria cinerea*

*Neisseria flavascens*

*Neisseria gonorrhoeae*

*Neisseria lactamica*

*Neisseria meningitidis*

*Neisseria mucosa*

*Neisseria perflava*

*Neisseria sicca*

*Neisseria subflava*

*Nocardia asteroides*

*Nocardia brasiliensis*

*Nocardia coeliaca*

*Nocardia corallina*

*Nocardia erythropolis*

*Nocardia otitidiscaviarum*

SCIENTIFIC NAME

*Nocardia peraffinae*  
*Nocardia rubra*  
*Nocardiopsis dassonvillei*  
*Nitrobacter* - all species in genus  
*Nitrococcus* - all species in genus  
*Nitrosococcus* - all species in genus  
*Nitrosomonas* - all species in genus

*Oerskovia xanthineolytica*  
*Oligella ureolytica*  
*Oligella urethralis*

*Pasteurella aerogenes*  
*Pasteurella haemolytica*  
*Pasteurella multocida*  
*Pediococcus acidilactici*  
*Peptococcus glycinophilus*  
*Peptococcus saccharolyticus*  
*Peptostreptococcus anaerobium*  
*Peptostreptococcus elsdenii*  
*Peptostreptococcus magnus*  
*Peptostreptococcus micros*  
*Photobacterium* - all species in genus  
*Plesiomonas shigelloides*  
*Porphyromonas asaccharolytica*  
*Porphyromonas gingivalis*  
*Porphyromonas levii*  
*Prevotella intermedia*  
*Prevotella loeschii*  
*Prevotella melaninogenica*  
*Propionibacterium acidipropionici*  
*Propionibacterium acnes*  
*Propionibacterium freudenreichii*  
*Propionibacterium jensenii*  
*Propionibacterium pentosaceum*  
*Propionibacterium shermanii*  
*Propionibacterium technicum*  
*Propionibacterium thoenii*  
*Proteus mirabilis*  
*Proteus penneri*  
*Proteus rettgeri*  
*Proteus vulgaris*  
*Providencia alcalifaciens*  
*Providencia rettgeri*  
*Providencia stuartii*  
*Pseudomonas aeruginosa*  
*Pseudomonas alcaligenes*  
*Pseudomonas cepacia*  
*Pseudomonas citronellolis*

SCIENTIFIC NAME

*Pseudomonas delafieldii*  
*Pseudomonas denitrificans*  
*Pseudomonas facilis*  
*Pseudomonas flava*  
*Pseudomonas fluorescens*  
*Pseudomonas lucifera*  
*Pseudomonas nactus*  
*Pseudomonas nigrifaciens*  
*Pseudomonas oleovorans*  
*Pseudomonas palleronii*  
*Pseudomonas pickettii*  
*Pseudomonas pseudoalcaligenes*  
*Pseudomonas pseudoflava*  
*Pseudomonas putida*  
*Pseudomonas saccharophila*  
*Pseudomonas stutzeri*  
*Pseudomonas testosteroni*

*Ralstonia pickettii*  
*Rhizobium* - all species in genus  
*Rhodobacter sphaeroides*  
*Rhodococcus* - all species in genus  
*Rhodopseudomonas palustris*  
*Rhodopseudomonas sphaeroides*  
*Rhodospirillum rubrum*  
*Rothia dentocariosa*  
*Ruminococcus albus*  
*Ruminococcus bromii*  
*Ruminococcus flavefaciens*  
*Ruminococcus rumen*

*Salmonella* - all species in genus except:  
    *S. typhi*  
*Saprosira grandis*  
*Sarcina aurantiaca*  
*Sarcina flava*  
*Sarcina lutea*  
*Sarcina subflava*  
*Sarcina ureae*  
*Sarcina ventriculi*  
*Selenomonas* -all species in genus  
*Serratia* - all species in genus  
*Shewanella putrefaciens*  
*Shigella* - all species in genus  
*Sorangium cellulosum*  
*Sphaerotilus natans*  
*Sphingobacterium multivorum*  
*Sphingobacterium serpens*  
*Spirillum volutans*

SCIENTIFIC NAME

*Spirochaeta cytophaga*  
*Sporocythophaga myxococcoides*  
*Staphylococcus* -all species in genus  
*Stenotrophomonas maltophilia*  
*Streptococcus* - all species in genus  
*Streptomyces* - all species in  
*Succinimonas* - all species in genus  
*Succinivibrio* - all species in genus

*Thiobacillus dinitrificans*  
*Thiobacillus thioparus*  
*Treponema zuelzeræ*

*Ureaplasma urealyticum*

*Veillonella alcalescens*  
*Veillonella parvula*  
*Vibrio adaptatus*  
*Vibrio alginolyticus*  
*Vibrio algosus*  
*Vibrio anguillarum*  
*Vibrio cholerae*  
*Vibrio fisheri*  
*Vibrio haloplanktis*  
*Vibrio marinagilis*  
*Vibrio marino vulgaris*  
*Vibrio marinofulvus*  
*Vibrio marinus*  
*Vibrio noctiluca*  
*Vibrio parahemolyticus*  
*Vibrio vulnificus*  
*Vitreoscilla stercoraria*

*Xanthomonas maltophilia*

*Yersinia enterocolitica*  
*Yersinia kristensenii*

## VIRUSES

adenovirus - human, all types

coxsackievirus  
cytomegalovirus

SCIENTIFIC NAME

echovirus  
 enterovirus  
 Epstein-Barr virus  
  
 hepatitis virus - types A,B,C,D,E  
 herpes simplex virus - types 1 and 2  
 herpes varicella zoster virus  
 human immunodeficiency virus - types 1 and 2  
 human papillomavirus  
  
 influenza virus - types A,B,C  
  
 measles (rubeola) virus  
 mumps virus  
  
 parainfluenza virus - types 1,2,3,4  
 poliovirus - all strains except:  
     poliovirus wild-type strain  
  
 respiratory syncytial virus  
 rhinovirus  
 rotavirus  
 rubivirus (rubella)  
  
 vaccinia virus  
 varicella-zoster virus

BACTERIOPHAGE  
 (Hosts of Bacteriophage)

*Acidovorax facilis*  
*Actinomyces viscosus*  
*Agrobacterium radiobacter*  
*Agrobacterium tumefaciens*  
*Alteromonas espejiana*  
*Alteromonas haloplanktis*  
*Anabaena* - all species in genus  
*Asticcacaulis excentricus*  
*Azotobacter vinelandii*  
  
*Bacillus brevis*  
*Bacillus cereus*  
*Bacillus firmus*  
*Bacillus licheniformis*  
*Bacillus megaterium*  
*Bacillus mycoides*

SCIENTIFIC NAME

*Bacillus polymyxa*  
*Bacillus pumilus*  
*Bacillus stearothermophilus*  
*Bacillus subtilis*  
*Bacillus thuringiensis*  
*Bacteroides fragilis*  
*Brochothrix thermosphacta*  
*Brucella abortus*  
*Brucella melitensis*

*Campylobacter coli*  
*Campylobacter jejuni*  
*Caulobacter bacteroides*  
*Caulobacter crescentus*  
*Caulobacter fusiformis*  
*Clostridium sporogenes*  
*Comamonas acidovorans*  
*Corynebacterium* - all species in genus  
*Cytophaga marinoflava*

*Enterobacter cloacae*  
*Enterococcus faecalis*  
*Enterococcus faecium*  
*Erwinia amylovora*  
*Erwinia ananas*  
*Escherichia coli*

*Klebsiella pneumoniae*

*Lactobacillus* - all species in genus  
*Lactococcus lactis*  
*Listeria monocytogenes*

*Micrococcus luteus*  
*Mycobacterium* - all species in genus

*Nocardioides albus*  
*Nostoc* - all species in genus

*Plectonema boryanum*  
*Propionibacterium acnes*  
*Pseudomonas aeruginosa*  
*Pseudomonas fluorescens*  
*Pseudomonas fragi*  
*Pseudomonas putida*  
*Pseudomonas syringae*

*Rhizobium leguminosarum*

SCIENTIFIC NAME

*Rhodospirillum rubrum*

*Saccharopolyspora rectivirgula*

*Salmonella choleraesuis*

*Salmonella typhimurium*

*Serratia marcescens*

*Shigella* - all species in genus

*Staphylococcus aureus*

*Streptococcus* - all species in genus

*Streptomyces griseus*

*Synechococcus* - all species in genus

*Thermoactinomyces candidus*

*Vibrio* - all species in genus

*Xanthomonas campestris*

*Xanthomonas oryzae*

*Yersinia pestis*

*Yersinia pseudotuberculosis*

ALGAE

*Chaetoceros* - all species in genus except:

*C. convolutus*

*C. concavicornis*

*Characiosiphon* - all species in genus

*Chilomonas oblonga*

*Chilomonas paramecium*

*Chlorella* - all species in genus

*Cyanophora paradoxis*

*Derbesia* - all species in genus

*Dunaliella* - all species in genus

*Gonium* - all species in genus

*Isochrysis* - all species in genus

*Monochrysis* - all species in genus

*Nannochloropsis* - all species in genus

*Ochromonas* - all species in genus

*Palmaria mollis*

*Pandorina* - all species in genus

SCIENTIFIC NAME

*Peranema granulifera*

*Peranema trichophorum*

*Prototheca* - all species in genus

*Rhodochorton purpureum*

*Skeletonema* - all species in genus

*Tetraselmis* - all species in genus

*Thalassiosira* - all species in genus

*Volvox* - all species in genus

PROTOZOA

*Amoeba proteus*

*Arcella* - all species in genus

*Blepharisma* - all species in genus

*Chaos carolinensis*

*Chilomastix mesnili*

*Colpidium* - all species in genus

*Didinium* - all species in genus

*Diffugia lobostoma*

*Dileptus* - all species in genus

*Endolimax nana*

*Entamoeba coli*

*Entamoeba gingivalis*

*Entamoeba hartmanii*

*Enteromonas hominis*

*Euplotes* - all species in genus

*Iodamoeba buetschlii*

*Paramecium aurelia*

*Paramecium bursaria*

*Paramecium caudatum*

*Paramecium micronucleatum*

*Paramecium multimicronucleatum*

*Retortamonas intestinalis*

*Spirostomum* - all species in genus

*Stentor* - all species in genus

SCIENTIFIC NAME

*Tetrahymena pyriformis*

*Trichomonas hominis*

*Trichomonas tenax*

*Vorticella* - all species in genus