

## Waste Tissue Culture Media Guidance

All wastes generated at West Virginia University must be properly disposed. All bio-hazardous waste must be managed in accordance with the West Virginia University Office of Research Integrity & Compliance, the Institutional Bio-Safety Committee (IBC) Guidelines and in accordance with applicable Federal, State, and local Regulations. At a minimum, bio-hazardous wastes shall be disinfected or sterilized to ensure that the waste presents no biological harm to others or the environment before leaving the premises. The responsibility for identification, segregation and handling of waste rests with the generator of the waste. The Environmental Health and Safety Office (EH&S) is available to provide technical guidance, assistance and information regarding proper handling and disposal of laboratory wastes. Additional guidance on Biological Safety can be found at <http://oric.research.wvu.edu/biosafety>.

The purpose of this document is to provide guidance to the researcher to ensure the disposal of waste tissue culture media complies with applicable solid waste and/or hazardous waste regulations, and Morgantown Utility Board Permit requirements. These requirements are in addition to bio-hazardous waste requirements.

Tissue culture wastes, consisting of the formulations listed in Table (1A) or bacterial media formulations listed in Table (1B), with the additives listed in Table (2) two, and the stains listed in Table (3) three, are regulated as Bio-Hazardous Wastes not as RCRA Hazardous Wastes, **except** when solvents (i.e., ethanol, isopropanol, or methanol) are introduced into the waste. If disposable pipettes or transfer tips are not used for transfers, and the tips are sanitized using a solvent, in such a manner that the solvent is introduced into the waste tissue culture media, then the waste should be collected and managed as a dual waste, meaning both Bio-Hazardous and RCRA Hazardous Waste. Dual wastes should be disinfected or sterilized following IBC protocols then disposed of as Hazardous Wastes.

TABLE 1A – Tissue Media Formulations

Ames' Media	Sigma-Aldrich Product No. or equivalent
Basal Media Eagle	Sigma-Aldrich
Click's Medium	Sigma-Aldrich
Complete Dulbecco's Modified Eagle's Media (DMEM-C)	
Dulbecco's Modified Eagle's Media (DMEM)	(Mediatech: Cat. No. 15-017-CV, or equivalent)
DMEM/Ham's Nutrient Mixture F-12	Sigma-Aldrich Product No. 51445C or equivalent
F-12 Coon's Modification Formulation	Sigma-Aldrich
Fetal Bovine Serum (FBS)	(SAFC Cat. No. 121036, or equivalent)
Glasgow Minimum Essential Media	Sigma-Aldrich
Grace's Insect Media	Sigma-Aldrich
Iscove's Modified Dulbecco's Media (IMDM)	Sigma-Aldrich
IPL-41 Insect Medium	Sigma-Aldrich
Joklik's S-MEM	Sigma-Aldrich Product No. 56449C or equivalent
L-15 Media	Sigma-Aldrich
Luria Broth (LB)	Sigma-Aldrich
Luria Broth Agar	Sigma-Aldrich
M2 and M16 Modified Media	Sigma-Aldrich
McCoy's 5A Modified Media	Sigma-Aldrich

## Waste Tissue Culture Media Guidance

MCDB Media	Sigma-Aldrich
Medium 199	Sigma-Aldrich
Minimum Essential Medium Eagle (MEM)	Sigma-Aldrich
NCTC Media	Sigma-Aldrich
Nutrient Mixtures (HAM) F-10	Sigma-Aldrich
Nutrient Mixtures (HAM) F-12	Sigma-Aldrich
Roswell Park Memorial Institute Media (RPMI)	Sigma-Aldrich
RPMI 1640 Medium	Sigma-Aldrich
RPMI 1640 Medium Dutch Modification	Sigma-Aldrich
RPMI 1640 Medium HEPES Modification	Sigma-Aldrich
RPMI 1640 Medium Modified	Sigma-Aldrich
RPMI 1640 Medium Auto-Mod™ for Autoclaving	Sigma-Aldrich
RPMI 1640 with L-Glutamine	(Mediatech: Cat. No. _____, or equivalent)
Schneider's Insect Media	Sigma-Aldrich
Shields and Sang M3 Insect Media	Sigma-Aldrich
TC-100 Insect Medium	Sigma-Aldrich
TNM-FH Insect Medium	Sigma-Aldrich
Waymouth Medium MB	Sigma-Aldrich
Williams' Medium E	Sigma-Aldrich
AQmedia	Sigma-Aldrich
Borrelia Culture Media	Sigma-Aldrich
MCDB Media	Sigma-Aldrich

TABLE 1-B Bacterial Media Formulations

Luria Broth	
Luria Broth Agar	
Tryptone	(Fisher Cat. No. BP1421, or equivalent)
Yeast Extract	(Fisher Cat. No. BP1422, or equivalent)
Sodium Chloride (NaCl)	(Acros Cat. No. 424290050, or equivalent)
Agar	(Fisher Cat. No. 9002-18-0, or equivalent)

TABLE 2 – Additives

Ampicillin	CAS No. 69-52-3
Blasticidin	CAS No. 2079-00-7
Chloramphenicol	CAS No. 56-75-7
Cholera toxin	CAS No. 9012-63-9
DMEM Phosphate Buffered Saline	CAS No.
Doxycycline	CAS No. 24390-14-5
Earle's Balanced Salts	CAS No.
G-418 Sulfate (gentamycin)	(Mediatech Cat. No. 61-234-RG, or equivalent) CAS 108321-42-2

## Waste Tissue Culture Media Guidance

Hank's Balanced Salts	
HCL	CAS No. 7647-01-0
100-18B Human FGF	CAS No. None
Hydrocortisone	CAS No. 50-23-7
Hygromycin b	CAS No. 31282-04-9
Insulin	CAS No. 11061-68-0
Kanamycin Sulfate	CAS No. 25389-94-0
L-Glutamine	(Mediatech Cat. No. 25-005-CL, or equivalent) CAS 56-85-9
Penicillin	CAS No. 113-98-4
Penicillin and Streptomycin (Pen/Strep)	(Mediatech Cat. No. 30-002-CL, or equivalent)
Puromycin	CAS No. 58-58-2
Sodium Bicarbonate	CAS No. 144-55-8
Streptomycin	CAS No. 3810-74-0
Tetracycline	CAS No. 60-54-8
Trypsin	CAS No. 7558-79-4
Zeocin	CAS No. None

TABLE 3 – Stains

Trypan Blue	CAS No. 72-57-1
Eosin Y	CAS No. 15086-94-9
Erythrosin B	CAS No. 16423-68-0
Hoechst (bisB enzimide B-2883)	CAS No. None

Additional media, additives or stains may be added to the above list by providing EHS the following information:

- 1) Name of media, additive or stain;
- 2) Manufacturer of media, additive or stain;
- 3) Safety Data Sheet (SDS) for purchased media, additive or stain;
- 4) Contact information for the person preparing the request;

OR

- 1) The procedure for making the media, additive or stain;
- 2) The common name of the media additive or stain;
- 3) The list of ingredients used to make the media, additive, or stain;
- 5) The Safety Data Sheets (SDS) from the manufacturers of the chemicals used and;
- 6) Contact information for the person preparing the request.

Email above information to [joyce.moore@mail.wvu.edu](mailto:joyce.moore@mail.wvu.edu). The information should be bundled separately for each requested item submitted for review. To avoid delays, please ensure that all required information is included with the initial request. SDS should be in Adobe Acrobat pdf file format. Please do not submit information for multiple items in the same request.