

May 15, 2008

To Whom It May Concern:

Subject: Effluent waste profile for the Beckman Coulter Access/Access2 Immunoassay System.

Dear Sir or Madam:

We understand the important responsibility our customers have to comply with their local waste requirements so the information that you have requested concerning the effluent waste from our instrument has been provided below.

We believe the information provided to be accurate and hope it will help in your assessment of compliance but we make no warrantee or claim of compliance since we are not experts in your local waste water laws. An analysis of actual compliance involves many complex factors and variables that are not practical to analyze or predict on paper such as amount of total outflow from your facility, total product used or disposed at any given time and total effect of other sources of combined waste.

Beckman Coulter is fully committed to providing supporting information to our customers so that they may fulfill their important responsibility of determining compliance to their local waste and water laws.

The following Organics, Inorganic and Metals were found in the typical waste content of a Access/Access2 Immunoassay system

Toxicity and Commonly Discharge Limited Substances		Test Method	Detection Limit	Measured Value	Result / Comment
Inorganic	Ammonia (12-345-12)	EPA 350.3	0.50 mg/L	ND	
	Bromide	EPA 300.3	5.0 ppm	<5.0 ppm	EPA 9076
	Chloride	EPA 300.3	5.0 ppm	<5.0 ppm	EPA 9076
	Chlorine	EPA 330.5	0.10 mg/L	< 0.2 mg/L	EPA 330.2
	Cyanide	EPA 335.3	0.010 mg/L	ND	EPA 335.2
	Fluoride	EPA 300.0	5.0 ppm	<5.0 ppm	EPA 9076
	Iodide	EPA 345.1	5.0 ppm	<5.0 ppm	EPA 9076
	Nitrate	EPA 300.0	0.20 mg/L	ND	EPA 353.1
	Phosphorous	EPA 365.3	0.60 mg/L	< 4.0 mg/L	EPA 365.2
	Phosphate	EPA 300.3			See Phosphorous
	Sulfate	EPA 300.3	2.5 mg/L	ND	EPA 375.4
Organics	Allyl Chloride ²	EPA 8260	100 µg/L	ND	
	Benzene ¹	EPA 8260	50.0 µg/L	ND	
	Carbon Tetrachloride	EPA 8260	50.0 µg/L	ND	

	Chlordane	SW846 8081	1.2 µg/L	<1.2 µg/L	
	Chlorobenzene	EPA 8260	50.0 µg/L	ND	
	Chloroform	EPA 8260	50.0 µg/L	ND	
	o-Cresol	SW 8270C	56.2 µg/L	ND	
	m-Cresol	SW 8270C	112 µg/L	ND	w/ p-Cresol
	p-Cresol	SW 8270C	112 µg/L	ND	w/ m-Cresol
	2,4-Dichlorobenzene	EPA 8270	56.2 µg/L	ND	1,3-Dichlorophenol
	1,4-Dichlorobenzene	EPA 8270	56.2 µg/L	ND	
	1,2-Dichloroethane	EPA 8260	50.0 µg/L	ND	
	1,1-Dichloroethylene	EPA 8260	50.0 µg/L	ND	
	2,4-Dinitrotoluene	EPA 8270C	10 µg/L	<10 µg/L	
	1,4 - Dioxane	SW 8260B	3.1 µg/L	<4.5 µg/L	EPA 8270
	Endrin	SW846 8081	2.4 µg/L	<2.4 µg/L	
	Heptachlor	SW846 8081	1.2 µg/L	<1.2 µg/L	
	Hexachlorobenzene	EPA 8270	56.2 µg/L	ND	
	Hexachlorobutadiene	EPA 8260	50.0 µg/L	ND	
	Hexachloroethane	EPA 8270	56.2 µg/L	ND	
	Lindane	SW846 8081	1.2 µg/L	<1.2 µg/L	
	Methocychlor	SW846 8081	12 µg/L	<12 µg/L	
	Methyl ethyl ketone	EPA 8270	250 µg/L	ND	
	Nitrobenzene	EPA 8270	56.2 µg/L	ND	
	Pentachlorophenol	EPA 8270	129 µg/L	ND	
	Tetrachloroethylene	EPA 8260	50.0 µg/L	ND	
	Toxaphene	SW846 8081	72 µg/L	<72 µg/L	
	Trichloroethylene	EPA 8260	50.0 µg/L	ND	
	2,4,5-Trichlorophenol	EPA 8270	281 µg/L	ND	
	2,4,6-Trichlorophenol	EPA 8270	56.2 µg/L	ND	
	2,4,5-TP Silvex	EPA 8151A	0.080 µg/L	<0.080 µg/L	
	Vinyl Chloride	EPA 8260	20.0 µg/L	ND	
	Formaldehydes	SW8315A	50 µg/L	<50 µg/L	
	MBAS-Surfactants	EPA 425.1	0.20 mg/L	<0.85 mg/L	
	Phenols	EPA 420.1	25.0 µg/L	ND	EPA 420.4
	Pyridine	SW 8270C	281 µg/L	ND	
	1) Total Aromatic Solvents	N/A	N/A	ND	See below
	2) Total Chlorinated Hydrocarbons	N/A	N/A	ND	See below
	3) Total Cresols	N/A	N/A	ND	See above
	4) Total Organics				
Metals	Aluminum	SW 6020A	20.0 µg/L	ND	
	Antimony	SW 6020A	0.50 µg/L	<0.55 µg/L	
	Arsenic	SW 6020A	1.0 µg/L	ND	
	Barium	SW 6020A	1.5 µg/L	ND	
	Baryllium	SW 6020A	1.0 µg/L	ND	
	Cadmium	SW 6020A	0.50 µg/L	ND	
	Chromium	SW 6020A	2.5 µg/L	<24.5 µg/L	
	Cobalt	SW 6020A	0.50 µg/L	ND	

	Copper	SW 6020A	1.0 µg/L	<1.2 µg/L	
	Iron	SW 6020A	250 µg/L	<555 µg/L	
	Lead	SW 6020A	0.50 µg/L	ND	
	Manganese	SW 6020A	2.5 µg/L	ND	
	Mercury	SW 6020A	0.20 µg/L	ND	
	Molybdenum	SW 6020A	0.50 µg/L	ND	
	Nickel	SW 6020A	0.50 µg/L	<50.0 µg/L	
	Selenium	SW 6020A	2.5 µg/L	ND	
	Silver	SW 6020A	1.0 µg/L	<3.0 µg/L	
	Strontium	SW 6020A	0.50 µg/L	<6.5 µg/L	
	Tin	SW 6020A	0.50 µg/L	ND	
	Thallium	SW 6020A	0.50 µg/L	ND	
	Vanadium	SW 6020A	0.50 µg/L	<3.5 µg/L	
	Zinc	SW 6020A	25.0 µg/L	<69.0 µg/L	
Other Hazardous Waste Characteristics				Measured Value	Result / Comment
pH				8.2	EPA 150.1
Flammability				>210 °F	SW846 1010
Reactivity				ND	Sulfide and Cyanide Reactivity Tested

(1) Chlorinated Hydrocarbons

Allyl Chloride	1,1-Dichloroethane
Bis(2-chloroethoxy)methane	1,2-Dichloroethane
Bis(2-chloroisopropyl) ether	1,1-Dichloroethene
Bromobenzene	<i>trans</i> -1,2-Dichloroethene
Bromodichloromethane	Dichloromethane
Bromoform	1,2-Dichloropropane
Bromomethane	<i>cis</i> -1,3-Dichloropropene
Carbon Tetrachloride	<i>trans</i> -1,3-Dichloropropene
Chlorobenzene	Ethylene Dibromide
Chloroethane	Hexachloroethane
2-Chloroethyl vinyl ether	Hexachlorobenzene
Chloroform	Hexachlorobutadiene
Chloromethane	Hexachlorocyclopentadiene
2-Chloronaphthalene	Methyl Iodide
Chloroprene	1,1,2,2-Tetrachloroethane
4-Chlorotoluene	1,1,1,2-Tetrachloroethane
Dibromochloromethane	Tetrachloroethene
1,2-Dibromo-3-chloropropane	1,2,4-Trichlorobenzene
Dibromomethane	1,1,1-Trichloroethane
1,2-Dichlorobenzene	1,1,2-Trichloroethane
1,3-Dichlorobenzene	Trichloroethene
1,4-Dichlorobenzene	Trichlorofluoromethane
1,4-Dichloro-2-butene	1,2,3-Trichloropropane
Dichlorodifluoromethane	Vinyl chloride

(2) Total phenols

4-Chloro-3-methylphenol	2-Nitrophenol
2-Chlorophenol	4-Nitrophenol
2,4-Dichlorophenol	Pentachlorophenol
2,6-Dichlorophenol	Phenol
2,4-Dimethylphenol	2,3,4,6-Tetrachlorophenol
2,4-Dinitrophenol	2,4,5-Trichlorophenol
2-Methyl-4,6-dinitrophenol	2,4,6-Trichlorophenol

(3) Aromatic Solvents

Benzene	1,4-Dichlorobenzene
Chlorobenzene	Ethylbenzene
1,2-Dichlorobenzene	Toluene
1,3-Dichlorobenzene	Xylene (<i>o-m-p</i>)

Additional General Comments on Product Waste

Beckman Coulter, Inc. has placed tens of thousands of instruments into laboratories throughout the world. These locations constitute a wide variety of national, regional, and local regulations concerning waste management. Beckman has an ongoing commitment to minimize any potential hazards to the environment, and in general, our customers have experienced no difficulty in meeting waste disposal limitations.

The effluent profile (amount and type of substances in the liquid waste) from laboratory instrument systems can vary greatly with time based on the nature of use by the customer. Because our laboratory instruments are programmable machines the amount of any given substance added to the facility outflow can be dramatically affected by several variables such as the frequency of use, duration of use and types of tests run.

Wastewater requirements typically set limits for the amount of allowed substances as measured at the point of outflow from a facility to the public sewer system. For facilities with large amounts of total outflow, the low level concentrations of substances found in the waste output from our products would be expected to be diluted to undetectable levels.

Of course if the laboratory has a dedicate sewer connection or the total facility outflow is very low then the waste output from the laboratory instrument(s) could be significant.

Information Available from BCI to Help Manage Environmental Waste

1. All information relating to individual health and safety aspects of exposure to our products is provided on the relevant MSDS as required by law and are available on the Beckman website at <http://www.beckmancoulter.com>
2. Due to proprietary concerns, Beckman Coulter, Inc. will under most circumstances decline to provide customers with the full formulation content of our products.
3. If provided with a list of CAS numbers of substances deemed potentially environmentally hazardous by your local wastewater laws, Beckman Coulter, Inc. will provide you with information on any amounts of these substances intentionally added by formulation for any specific product that you identify.

Remember that in most cases this information will be of little use in determining compliance with your maximum allowed discharge concentrations due to the dilution factors and other aspects of use explained in this letter.

Additional Recommendations for Managing Environmental Waste

1. If you do not have local in-house expertise on proper waste disposal and compliance with related laws we highly recommend that you obtain these services from a qualified professional.
2. If you want to determine the exact concentration of potentially hazardous substances being added into your facility outflow at the point of connection of the instrument, we recommend that you work with a qualified environmental waste expert to:
 - A. Develop a list of substances that are limited by laws applicable to your facility
 - B. Develop a statistical sampling and analysis process to build a profile of waste based on actual use over time

Beckman Coulter continues to appreciate your business, and we look forward to working with you in the future. Should you have any questions, please feel free to contact us.

Regards,



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