

Block Environmental Services: Hazardous Waste Evaluation

July 07, 2002

Mr. Peter D. T. Eastwick, President
Spill-Sorb Canada Inc.
Suite 301, 12204-106 Avenue
Edmonton, Alberta, Canada T5N 3Z1

Subject: Hazardous Waste Evaluation of Spill-Sorb hydrocarbon absorbent

Mr. Eastwick:

Block Environmental Services (BES) is pleased to provide you the results and interpretation of the chemical data for the subject product. The sample analysis was evaluated with respect to compliance with the Resource Conservation and Recovery Act (RCRA) and the California Hazardous Waste Control Law hazardous waste characteristics.

All tests were performed by laboratories, which are accredited by the California Department of Health Services for the appropriate tests. Interpretation of the laboratory data is presented below. The hazardous waste characteristics which the sample was compared to are found in Title 22 of the California Code of Regulations (CCR), Chapter 11, Division 4.5.

The pH of the sample was 4.1. The characteristic of corrosivity of a waste is defined in Title 22 CCR, Section 66261.22 (40 CFR 261.22) as having a pH of <2 or >12.5. Because the pH of the sample was >2 and <12.5, the sample would not be considered to have the characteristic of corrosivity.

The flashpoint of sample was >140°F and therefore would not exceed the regulatory threshold level for ignitability. According to Section 66261.21, Title 22, CCR (40 CFR 261.21), if the flashpoint is <140°F, the waste would exhibit the characteristic of ignitability. Because the sample flashpoint is greater than 140°F, the sample would not exhibit the ignitability characteristic.

Reactivity was not determined on the sample. However, based on chemical analysis of the sample, no constituents were found which would cause reactivity as defined in Section 66261.23, 22 CCR (40 CFR 261.23). Therefore, the wastewater would not exhibit the reactivity characteristic.

The toxicity characteristic is defined in Section 66261.24, 22 CCR and 40 CFR 261.24. This section establishes threshold limit values for a list of regulated inorganic and organic constituents. Chemical analysis conducted on the sample included EPA Method 8270 for semivolatile organic compounds. All metals listed in Section 66261.24 were

Mr. Peter D.T. Eastwick
 Spill-Sorb Canada Inc.
 Page 2

analyzed using EPA Method 3050, 6010 and 7471. Volatile organic chemicals (VOCs) were not analyzed in the sample because the solid material by its chemical properties would not contain VOC compounds. Also, the product's lack of a flashpoint is also indicative that it contains no VOC compounds. The total concentration of the product was determined. The EPA TCLP procedure dilutes the sample by a factor of 20 and the California WET dilutes a sample by a factor of 10. Therefore, the total concentration of chemicals analyzed in the product was a more conservative analysis and is allowed by both the Federal EPA and California Department of Health Services as an acceptable analytical approach.

Only those chemicals above a detectable concentration are listed. No semi volatile organic compounds were detected in the sample.

Chemical	Concentration mg/kg	STLC mg/L	TTLK Mg/Kg
Arsenic	3.8	5.0*	500
Barium	33	100*	10,000
Lead	2.4	5.0*	1000
Copper	2.5	25	2,500
Nickel	1.7	20	2,000
Vanadium	1.1	24	2,400
Zinc	14	250	5,000

STLC Soluble Threshold Limit Concentration

TTLK Total Threshold Limit Concentration

* Same value as EPA TCLP threshold characteristic

Therefore, there were no constituent chemicals found in the product which exceeded its corresponding threshold level listed in section 66261.24, 22 CCR. In addition, the aquatic bioassay test using fathead minnows produced a 96-hr LC50 greater than 750 mg/L for the sample. Because the toxicity test data produced a 96-hr LC50 greater than 500 mg/L the sample would not be considered toxic based on the fish toxicity criteria. Based on the results of the chemical testing and the aquatic bioassay, the sample does not exhibit the toxicity characteristic either as a California hazardous waste or as a RCRA waste.

Mr. Peter D.T. Eastwick
Spill-Sorb Canada Inc.
Page 3

In summary, the sample was evaluated for hazardous waste characteristics. The sample did not exhibit the corrosivity, ignitability, reactivity or toxicity characteristic as defined in Title 22 CCR (California Code of Regulations) and 40 CFR 261 (Code of Federal Regulations). Therefore, the product as received would not be regulated as a hazardous waste in California and in other states, which utilize the RCRA 40 CFR 261 regulations for waste characterization. Therefore, if the product were disposed of it would not have to be managed as a hazardous waste.

According to section 66260.200 (c), 22 CCR, a generator may self-classify their waste to determine if the waste is hazardous as described, and manage the waste in accordance with that classification. Based on the attached analytical data and chain of custody, the material would not have to be managed as a hazardous waste. Even though the classification is self-classified as non hazardous, a Federal, State, or local environmental health agency has the authority to sample the waste to ensure that the classification was performed correctly. Should the product be altered in any way, it will be necessary to have the altered product re-analyzed for hazardous waste constituents.

All laboratory data and chain of custody forms are attached.

Very truly yours,
Block Environmental Services, Inc.

Ronald M. Block, Ph.D., REA
Principal Toxicologist