

9441.1995(30)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D.C. 20460

September 13, 1995

Ms. Patricia A. Trucker
Gobe Enterprises
49 Essex Court
Meriden, CT 06450

This is in response to your August 7, 1995 letter regarding IVO International's desire to "import and sell a new chemical within the United States." In your letter you asked us to clarify whether the chemical, Potassium Hexacyanocobalt (II)-Ferrate(II), once used as part of operations at a Department of Energy nuclear plant or test site, and therefore "spent," would be considered a "mixed waste" under the Resource Conservation and Recovery Act (RCRA).

We consider any mixture of RCRA-regulated hazardous waste and radioactive materials to be a mixed waste. Unfortunately your letter does not provide sufficient information for us to determine whether or not the spent material would be hazardous as defined by RCRA, and therefore a mixed waste.

A solid waste is considered hazardous if it is either listed or fails one of the four "characteristics" (see 40 CFR Part 261, Subpart C), and assuming it has not been otherwise excluded from the definition of hazardous waste. In your letter you indicated that the spent chemical is not listed and does not fail the either the ignitability or corrosivity characteristics. However, you did not adequately address the other two characteristics, toxicity and reactivity.

According to 40 CFR 262.11, it is the responsibility of the waste generator to determine whether or not a waste is hazardous. In order to do this, IVO International will need to determine whether or not the spent material fails either of the other characteristics and is therefore hazardous (and a mixed waste if radioactive).

RO 14016

If you have further questions concerning mixed waste, please contact Nancy Hunt at (703) 308-8762. If you have questions regarding hazardous waste characteristics, please contact John Austin at (202) 260-4789.

Sincerely,

Michael Petruska, Chief
Regulatory Development Branch

Attachment

Patricia A. Tucker
Gobe Enterprises
49 Essex Court
Meridan, CT 06450

Tel - (203) 235 7838
Fax - (203) 237 1855

August 7, 1995

Office of Solid Waste
U.S.E.P.A.
401 M Street, SW
Washington, DC 20460

Dear Sirs:

I represent a Finnish company named IVO International. We are attempting to import and sell a new chemical within the United States. We have been asked by some of our potential customers to clarify your office's classification of this chemical, and we therefore respectfully request a written confirmation as to your findings based on the data and questions presented below.

Chemical Name: Potassium Hexacyanocobalt(II)-Ferrate(II)

CAS Number: 12549-23-4

Ignitability: Decomposition at 250 deg. Celsius

Corrosiveness: Non-corrosive solid

Toxicity: Should not be swallowed. Wash if contact with skin.

Reactivity: Should not be heated with strong mineral acids (not normally found at site for use of this chemical).

MSDS Sheet: Attached

TOSCA Status: Currently preparing LVE of PMN.

Typical

Customers: Nuclear Power Plants and the U.S.D.O.E.

Expected use: During the normal operation of nuclear plants

and test sites controlled by the D.O.E., there is a significant build-up of the fission products, Cs-134 and Cs-137 within the water system. Potassium Hexacyanocobalt(II)-Ferrate(II) is an insoluble, granular chemical which will be used as an ion exchange media (within stainless steel columns) to purify this irradiated water. It will selectively remove Cs isotopes from the water, exchanging potassium ions in their place. Purified water can then be released to the environment and the spent chemical would then be buried in approved radioactive burial sites.

Our customer's questions revolve around the Resource Conservation and Recovery Act and whether the spent chemical would be considered a "mixed waste" (waste regulated under RCRA and the Atomic Energy Act). We are under the impression that our spent chemical is not specifically named under RCRA and that it would not be regulated under RCRA due to classifications such as ignitability or corrosiveness. If the product is not regulated by the EPA under RCRA, it would not be considered a mixed waste when the spent media contains radioactive Cs.

Please confirm in writing, at your earliest convenience, that our understanding of your rules are correct, and that your office would not consider spent Potassium Hexacyanocobalt(II)-Ferrate(II) a mixed waste. We appreciate your time in attending to our request.

Sincerely,

Patricia Tucker

Attachment

MATERIAL SAFETY DATA SHEET

IDENTITY - CESIUM SELECTIVE ION EXCHANGER (IVO-CsTreat)

SECTION I-

IVO INTERNATIONAL FINNISH NUCLEAR WASTE TECH.	EMERGENCY PHONE NUMBER (203) 894-1954
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871 ETHAN ALLEN HIGHWAY RIDGEFIELD, CT 06877	TELEPHONE NUMBER FOR INFORMATION (203) 894-1954
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TECHNICAL & EMERGENCY CONTACT MR. JUKKA RAUTAKALLIO	DATA PREPARED March 7, 1995
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SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

INGREDIENT POTASSIUM HEXACYANOCOBALT(II) -FERRATE(II)	CAS NUMBER 12549-23-4
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SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT DECOMPOSITION AT 250 deg. C	SPECIFIC GRAVITY 2.8
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VAPOR PRESSURE (mm Hg) NONE	MELTING POINT NONE
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VAPOR DENSITY (AIR-1) NONE	EVAPORATION RATE (BUTYL ACETATE= 1) NONE
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SOLUBILITY IN WATER INSOLUBLE	APPEARANCE AND ODOR SOLID DARK BROWN/BLACK GRANULES
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SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT

NONE

FLAMMABLE LIMITS

NONE

EXTINGUISHING MEDIA

WATER, CHEMICAL FOAM, DRY CHEMICALS

SPECIAL FIRE FIGHTING PROCEDURES

NONE

UNUSUAL FIRE HAZARDS

NONE

SECTION V - REACTIVITY DATA

STABILITY

STABLE

CONDITIONS TO AVOID

DO NOT HEAT WITH STRONG MINERAL ACIDS

INCOMPATIBILITY (MATERIALS TO AVOID)

HOT, CONCENTRATED MINERAL ACIDS

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

HYDROGEN CYANIDE MAY EVOLVE (INCOMPATIBILITY)

HAZARDOUS POLYMERIZATION CONDITIONS TO AVOID

NONE - WILL NOT OCCUR IN NORMAL OPERATION

SECTION VI - HEALTH HAZARD DATA

ROUTES OF ENTRY:

INHALATION?

POSSIBLE

SKIN?

ADSORPTION NOT LIKELY

INGESTION?

POSSIBLE

HEALTH HAZARDS: HARMFUL IF SWALLOWED OR INHALED (DUST)

HARMFUL IF CONTACT WITH SKIN

INHALATION OR SKIN CONTACT MAY CAUSE IRRITATION

CARCINOGENITY: NOT KNOWN

SIGNS AND SYMPTOMS OF EXPOSURE:
IRRITATION AND DEHYDRATION(SKIN)
IRRITATION (INHALATION)

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
NOT KNOWN

EMERGENCY AND FIRST AID PROCEDURES:
INHALATION - IF IRRITATION OCCURS, MOVE SUBJECT TO FRESH AIR
SKIN - WASH WITH WATER AND SOAP

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IF RELEASED OR SPILLED:
SWEEP UP AND WASH WITH WATER

WASTE DISPOSAL METHOD:
BURY IN APPROVED LANDFILL

PRECAUTIONS IN HANDLING AND STORAGE:
AVOID CONTACT WHILE HANDLING, STORE IN COOL, DARK AREA

OTHER PRECAUTIONS: DO NOT HEAT WITH STRONG MINERAL ACIDS

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION PROTECTIVE GLOVES
DUST MASK RUBBER GLOVES

EYE PROTECTION
NOT NORMALLY REQUIRED

VENTILATION
LOCAL EXHAUST: NOT REQUIRED

OTHER PROTECTIVE CLOTHING AND EQUIPMENT: NONE REQUIRED

WORK/HYGIENIC PRACTICES: WASH HANDS AFTER HANDLING