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## **3/7/2000 EPA/3M Meeting Objectives**

1. Update EPA OPPT management on 3M FC initiative
  - product understanding
  - product stewardship
  - communications
  - product/process re-engineering
  - product reinvention
  - human health risk assessment
  - environmental risk assessment
  
2. Define a "path forward" for future EPA/3M communications on the 3M FC initiative
  - feedback on EPA management's perspective
  - risk assessment
  - new chemicals regulatory strategy

# Product Building Blocks

Electro-Chemical Fluorination Cells  
(Octanesulfonyl fluoride + HF + electrical energy)

Perfluorooctane sulfonyl fluoride

Secondary Reactors

Perfluorooctane sulfonic acid

Surfactants

Perfluorooctane  
sulfonamide

Various  
commercialized  
intermediates  
and surfactants

N-ethyl perfluorooctane-  
sulfonamide

N,N-diethylperfluorooctane-  
sulfonamide

Amphoteric  
surfactants  
(Fire Fighting Foams)

N-ethylperfluorooctane-  
sulfonamide ethanol

Phosphate  
esters  
(Paper & Packaging)

Acrylate polymers  
Adipate adducts  
Urethane polymers  
(Carpet and  
Textile Protection)

Various  
commercialized  
intermediates  
and surfactants

## **Commercialized Uses of POSF Based Chemistries**

- Paper and Packaging Protection
- Carpet Protection
- Home Textiles Protection
- Apparel Protection
- Fire Fighting Foams
- Performance Chemical Sales
  - fire fighting foams
  - mining and oil
  - metal plating and electronic etching baths
  - household additives
  - coatings and coating additives
  - carpet spot cleaners
  - insecticides
  - intermediates

## **POTENTIAL SOURCES OF EXPOSURE**

- **Products**
  - Manufacturing residuals in products
  - Degradation of high molecular weight FC products
  
- **3M Manufacturing Operations**
  - Minimize/eliminate waste streams and emissions as potential exposure sources
  - Industrial hygiene
  
- **Customer's Manufacturing Operations**
  - Help to identify and minimize waste streams and emissions as potential exposure sources
  - Industrial hygiene surveys
  - Education & Training
  - Screen new customers

## **REGULATORY COMMUNICATIONS**

### **U.S. EPA**

- Initial meeting December 14, 1998
- Maintain regular verbal dialogue with EPA counterparts on FC program
  
- Recent TSCA 8(e) submissions
  - 4 submissions Perfluorooctane Sulfonate
  - 1 submission on Perfluorooctanoate
  
- White paper submissions
  - 1) PFOS: Current summary of Human Sera, Health and Toxicology Data (January 21 1999)
  - 2) The Science of Organic Fluorochemistry (February 5, 1999)
  - 3) Fluorochemical Use, Distribution and Release Overview (May 26, 1999)
  - 4) Sulfonated Perfluorochemicals in the Environment: Sources, Dispersion, Fate and Effects (March 7, 2000)

All submitted information reference directly to 8(e) file

## **REGULATORY COMMUNICATIONS**

### **U.S. FDA**

- Initial meeting April 24, 1998
- Updated Safety Assessment submitted February 9, 1999
- No further information/communication desired by FDA at this time pending completed review of safety assessment.
- Third generation safety assessment involving real food migration studies nearing completion.

## **REGULATORY COMMUNICATIONS**

### **Europe**

**BgVV - Initial visit June 25, 1998 on Scotchban products**  
**Updated data package sent September, 1999**  
**Expert toxicology committee review November, 1999**

### **Canada**

**Health Canada - Initial meeting September 23, 1998**  
**Followed up with updated FDA safety**  
**assessment**

**Environment Canada - Initial meeting November, 1998**

### **Japan**

**MHW - Initial meeting February, 1999**  
**Recent meeting October 19, 1999**

**MITI - Initial meeting February, 1999**  
**Recent meeting October 19, 1999**

## **CUSTOMER COMMUNICATIONS**

- **Inform them of our findings and understanding**
- **Reinforce the appropriate use, handling, and disposal of our products**
- **Share with them an overview of our science and stewardship programs**
- **Provide Industrial Hygiene assessments and share experience learned from our own operations**



# **FLUOROCHEMICAL REINVENTION INITIATIVE**

**Overall Goal: Reduce Potential for Exposure**

## **Reinvention Process Goals**

**Identify New Product Chemistries with the Following Criteria for Human Health, Environment:**

- Very Low Toxicity
  - Minimize Accumulation Properties
  - Equal / Improved Product Performance
  - Cost Effective
- 
- Initial Screen Identified Candidates That Show Promise to Meet These Criteria.
  - Envision Transformation of Some Product Lines by 2001.
  - Will Require New PMN Filings.

## **PROPOSED FUTURE MEETINGS**

1. Regulatory strategy meeting with New Chemicals Notice Management Branch to discuss transition from POSB-based chemistries to PBSF-based chemistry (within 90 days).

Suggested EPA participants:

- Flora Chow
- Rebecca Cools
- Vince Nabholz
- Gary Thom

2. Meeting with Risk Assessment Division to begin discussing details of study plans and existing data on POSF-based chemistries (within 60 days).

Suggested EPA participants:

- Oscar Hernandez
- Appropriate Scientific Staff

EPAMEETING3/7/2000