

Interoffice
Communication

TO: Dave Penney-Austin

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FROM: T. G. Grumbles
DATE: August 13, 1991

SUBJ: POLYMERS PRODUCT DEVELOPMENT ISSUES

VISTA

Below is the text to describe the issues I was assigned from our list developed in July. Please review and comment. Also either send me yours or add mine to yours and send to me.

TSCA Status: All materials produced, or used to produce substances, for commercial purposes must be on the Toxic Substances Control Act (TSCA) inventory. The determination of TSCA inventory status can be done by searching the inventory or obtaining written certification of inventory status from the supplier.

All substances put into a compound must be on the inventory.

Typically, the main concern is status of compound constituents. However, if we are doing anything "in-the-reactor" the polymer may be defined as a new product. A careful review of all "in reactor" modifications is necessary to determine inventory status.

NOTE: All chemicals imported into the United States must be accompanied by specific import certifications. This certification must accompany the shipment or shipment documentation.

Monomer Levels: The residual level of monomer materials in our polymers and compounds is a significant issue for multiple reasons. The monomers of concern are those in PVC as well as other blending or alloy polymers such as ABS.

The concerns include product liability warnings, regulatory labeling requirements, level restrictions for certain applications such as food use, and the potential to create workplace exposures in our plants and our customers plants.

Vinyl Chloride, Butadiene, and Styrene are all recognized carcinogens. It is imperative that we know what residual levels are and what workplace levels may be created during processing.

Process Emissions In addition to the monomers mentioned, other processing emissions must be evaluated. These include emissions during normal processing conditions as well as misuse conditions, specifically burning. As new additives and/or alloy materials are used we must develop information, quantitative if possible, on process emissions.

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Penney Memo
August 13, 1991
Page 2

Regulatory Classifications/Notifications Multiple compounding materials are included on EPA's SARA 313 list. We are required to notify customers who purchase products containing 313 listed materials of that fact and the amounts present.

The waste classification of PVC compounds is determined, at a minimum, by the Toxicity Characteristic Leaching Procedure (TCLP). This is a water leaching procedure that looks for specified levels of some 35 listed materials. Several PVC compound constituents are on the list.

Relatively minor changes in constituent concentrations could change the waste classification of a compound from non-hazardous to hazardous.

Other regulatory warning requirements are found in the OSHA Hazard Communication Standard and multiple state regulations such as California Proposition 65.

Manufacturing Site Impact If new process materials or process modifications are necessary for new product development, the impact of these changes on the manufacturing site must be reviewed. Impacts include permit modifications, emissions impact, waste treatment system impact, employee exposure and hazard communication program changes.


T. G. Grumbles

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