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UNION CARBIDE

INTERNAL CORRESPONDENCE

METALS DIVISION • P.O. BOX 579 - 4625 ROYAL AVE., NIAGARA FALLS, NEW YORK 14302

To (Name) Mr. Frank Twitty
Division UCC - Metals
Location Niagara Falls, NY

Date March 23, 1978
Originating Dept. "Calidria" Asbestos
Answering letter date
Subject TOSCA Registration

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This confirms our recent discussion of the registration of our asbestos products under TOSCA. Since failure to register a product can cause serious delays and may result in very large costs for animal testing while the penalties for registering a product that should not be included are minimal, it seems most appropriate to resolve all reasonable doubts in favor of registration.

A copy of paragraph 710.4 of the regulation showing the scope of the inventory is attached for reference. It seems quite clear that all of our regular asbestos products would fall under 710.4(b) and are automatically included in the inventory, i.e, we do not have to list them. Our several combined products, however, are not as clearly defined and present a series of judgment decisions of increasing complexity as follows:

1. T-135 is a coflocculated mixture of our asbestos and anatase or rutile titanium dioxide. The TiO_2 is either an exempt, naturally-occurring substance which we purchase in the United States or will be reported by its manufacturers. While there is clearly some sintering of the TiO_2 to the asbestos fibers during drying, this product is really a mixture of two substances and should not be reported by us.

2. The RG-244 product is the result of a chemical reaction when a purchased material, sodium silicate (reported by its manufacturer), interacts with asbestos as a result of the action of acetic acid (also purchased) as a pH neutralizer. This appears to fall under 710.4(c)(7) and the product should not be reported.

3. The RG-600 product results from a chemical reaction between asbestos and dimethylol-t-butyl phenol (DMBP). It is postulated that an acid-base reaction between the $Mg(OH)_2$ surface of the asbestos and the phenol group on the DMBP attaches it to the surface via a Mg-O-C bond. It is suggested that we make certain that the DMBP is included in the Bound Brook report and the RG-600 should be reported as a product by us.

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4. The silane-treated RG-244 is similar to the RG-600. Here RG-244 is made as noted in Item 2 and silane is added to interact chemically with the silica surface to form a Si-O-Si bond. This product should be reported.

The latter product presents another problem, however, in that our total production has been only about two pounds. The inventory is intended to cover only products which have been manufactured and in commercial use since January 1, 1975. Such products which are not listed in the initial inventory may be added for a 30 day period following its publication.

In the Act it is stated that a product of which less than 1000 pounds has been produced is assumed to be for research and development purposes. It cannot be reported unless the manufacturer can provide valid evidence of commercial use. It is not clear whether the manufacturer of more than 1000 pounds in itself is sufficient, but a reasonable case can probably be made. Considering the potential problems from non-registration, it is suggested that we move promptly to manufacture more than 1000 pounds of the silane-treated RG-244 and move it into premarket testing. Note that premarket testing is considered commercial use.

Your prompt comment on these recommendations is requested. It is now anticipated that compilation of the Metals Division report will begin on April 10. Deadline for submission to the EPA is May 1, 1978.

H. B. Rhodes

Harrison B. Rhodes

HBR/rmm
Attachment

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§ 710.4 Scope of the inventory.

(a) *Chemical substances subject to these regulations.* Only chemical substances which are manufactured, imported, or processed "for a commercial purpose," as defined in § 710.2, are subject to these regulations.

(b) *Naturally occurring chemical substances automatically included.* Any chemical substance which is naturally occurring and (1) which is (i) unprocessed or (ii) processed only by manual, mechanical, or gravitational means; by dissolution in water; by flotation; or by heating solely to remove water; or

(2) which is extracted from air by any means, shall automatically be included in the inventory under the category "Naturally Occurring Chemical Substances." Examples of such substances are: raw agricultural commodities; water, air, natural gas, and crude oil; and rocks, ores, and minerals.

(c) *Substances excluded by definition or section 8 (b) of TSCA.* The following substances are excluded from the inventory:

(1) Any substance which is not considered a "chemical substance" as provided in subsection 3(2)(B) of the Act and in the definition of "chemical substance" in § 710.2(h);

(2) Any mixture as defined in § 710.2 (q);

NOTE.—A chemical substance that is manufactured as part of a mixture is subject to these reporting regulations. This exclusion applies only to the mixture and not to the chemical substances of which the mixture is comprised. The term "mixture" includes alloys, inorganic glasses, ceramics, frits, and cements, including Portland cement.

(3) Any chemical substance which is manufactured, imported, or processed solely in small quantities for research and development, as defined in § 710.2 (y); and

(4) Any chemical substance not manufactured, processed or imported for a commercial purpose since January 1, 1975.

(d) *Chemical substances excluded from the inventory.* The following chemical substances are excluded from the inventory. Although they are considered to be manufactured or processed for a commercial purpose for the purpose of section 8 of the Act, they are not manufactured or processed for distribution in commerce as chemical substances *per se* and have no commercial purpose separate from the substance, mixture, or article of which they may be a part.

NOTE.—In addition, chemical substances excluded here will not be subject to premanufacture notification under section 5 of the Act.

(1) Any impurity.

(2) Any byproduct which has no commercial purpose.

NOTE.—A byproduct which has commercial value only to municipal or private organizations who (i) burn it as a fuel, (ii) dispose of it as a waste, including in a landfill or for enriching soil, or (iii) extract component chemical substances which have commercial value, may be reported for the inventory, but will not be subject to premanufacturing notification under section 5 of the Act if not included.

(3) Any chemical substance which results from a chemical reaction that occurs incidental to exposure of another chemical substance, mixture, or article to environmental factors such as air, moisture, microbial organisms, or sunlight.

(4) Any chemical substance which results from a chemical reaction that occurs incidental to storage of another chemical substance, mixture, or article.

(5) Any chemical substance which results from a chemical reaction that occurs upon end use of other chemical substances, mixtures, or articles such as adhesives, paints, miscellaneous cleansers or other housekeeping products, fuels and fuel additives, water softening and treatment agents, photographic, films, batteries, matches, and safety flares, and which is not itself manufactured for distribution in commerce or for use as an intermediate.

(6) Any chemical substance which results from a chemical reaction that occurs upon use of curable plastic or rubber molding compounds, inks, drying oils, metal finishing compounds, adhesives, or paints; or other chemical substances formed during manufacture of an article destined for the marketplace without further chemical change of the chemical substance except for those chemical changes that may occur as described elsewhere in this § 710.4(d).

(7) Any chemical substance which results from a chemical reaction that occurs when (i) a stabilizer, colorant, odorant, antioxidant, filler, solvent, carrier, surfactant, plasticizer, corrosion inhibitor, antifoamer or de-foamer, dispersant, precipitation inhibitor, binder, emulsifier, de-emulsifier, dewatering agent, agglomerating agent, adhesion promoter, flow modifier, pH neutralizer, sequesterant, coagulant, flocculant, fire retardant, lubricant, chelating agent, or quality control reagent functions as intended or (ii) a chemical substance, solely intended to impart a specific physicochemical characteristic, functions as intended.

(8) Chemical substances which are not intentionally removed from the equipment in which they were manufactured.

NOTE.—See note to definition of "intermediate" at § 710.2(n) for explanation of "equipment in which it was manufactured."

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