

TO: R. D. Gamblin

FROM: T. G. Grumbles
DATE: January 21, 1988

Interoffice
Communication

SUBJ: USE OF OUTSIDE PROFESSIONAL SERVICES

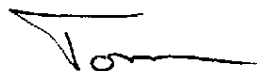
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VISTA

For this fiscal year, I have budgeted \$15,000 for use of outside professional services. The use of this money was envisioned to be in two basic areas: MSDS revision project and toxicology consulting.

I am asking your approval to begin using Environmental Technologies for the MSDS project. The main tasks to be completed by this consultant are:

1. Review of specific sections of all MSDS's to standardize language for input to the computer "phrase library" we are developing.
2. Additional toxicology review to assure completeness of Section V, Health Hazard Information.

A copy of the general proposal letter from ETI, Inc. is attached. This is a local firm with a good reputation and the required staff to do the MSDS job at an economical rate per hour. I am currently scheduling a meeting with ETI to "fine tune" the proposal so an accurate estimate can be obtained before proceeding with the project.



T. G. Grumbles

ajo
.301

Attachment

VVV 000010029

Environmental Technologies, Inc.

Technical Resource Center • 304 Magnolia Boulevard
Magnolia, Texas 77355 • (713) 356-6038

RECEIVED

JUL 20 '87

July 17, 1987

Mr. Tom Grumbles
Vista Chemical
P.O. Box 19029
Houston, TX 77224

Route: _____

Copy: _____

File: _____

X-R: _____

Dear Tom,

Based upon our phone conversation July 13, 1987, I would like to propose the following services to you.

Environmental Technologies, Inc.(ETI), will provide qualified personnel to review and rewrite Material Safety Data Sheets for language consistency. ETI will also review literature for special projects such as synthetic mineral fibers and others.

We expect this part time effort to average ten to twenty hours per week on a variable schedule. Additional time and travel may be required under special circumstances. ETI will provide the appropriate level of support to achieve the goals of these projects.

The fee for the effort discussed will be forty-five dollars per hour. If a Certified Industrial Hygienist is requested for specific projects, he will be billed at seventy-five dollars per hour. Travel costs are not included in these fees.

ETI will be responsible for all benefits and pay for the individuals(s) working on this project. Direct supervision on a routine basis will be conducted by Vista Chemicals Industrial Hygiene staff.

Tom, we are prepared to "fine tune" this proposal to meet your specific needs in the most cost effective manner possible. I offer this statement because my experience with other clients in providing temporary or part time help has worked well with this approach. By developing a dialogue during the early planning phase of this type of project, we have been able to field qualified people who have and are successfully meeting the specific goals of our clients.

If you need further information, please contact me.

Sincerely,



Claren J. Kotrla, CIH, CSP
Vice President

CJK/pb

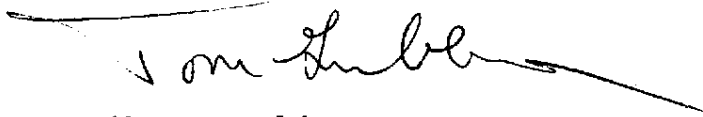
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Charlie Starks, Ralph Ferrell, Dave Kuhn,
Carl Kerfoot, Paul Gowan, Mike Fortier,
Wayne Hilgers, Charlie Matson, Sid Pitts

Tom Grumbles
November 10, 1987

Q&As for use in responding to inquiries about
Union Carbide's 8E filing.

We've prepared the attached Q&A for employees' use in
answering customers' inquiries regarding Carbide's re-
cent 8E filing on testing of ethoxylates. Also attached
is a copy of Carbide's customer notification. Together,
these documents should explain the situation to you. If
you or your employees have further questions, please
call me.

A handwritten signature in cursive script, appearing to read "Tom Grumbles", with a long horizontal line extending to the right.

cc: Mike Reynolds

VVV 000010031

**Questions and Answers
on Union Carbide's 8E filing
regarding ethoxylates.**

Q. I've heard that Union Carbide has filed an 8E notification with the EPA regarding certain nonionic surfactants. What do you know about it?

A. Union Carbide has recently completed routine acute toxicity studies on a group of alkoxide surfactants, including alcohol ethoxylates. The purpose of the testing was to determine what level would cause fatalities. After the tests were over, Union Carbide detected what they believe to be a previously unrecognized pattern of toxicity in rabbits exposed to high skin doses.

The rabbits were exposed by placing high concentrations of the chemical on their bare skin, and covering the exposure area so that the rabbits could not remove the material. Similar past testing had led scientists to expect the rabbits to die within one to three days after the material was applied. However, Union Carbide found a pattern indicating some rabbits dying after the three day period. Autopsies revealed apparent injury to the lower respiratory tract and lungs. In some cases where a more detailed examination was done, the injury was associated with foreign matter, presumed to be feed particles in the lungs.

Carbide is not saying that the chemicals, including ethoxylates, are any more or less toxic than they were already known to be. They're simply reporting a previously unrecognized pattern to the deaths in test animals.

Further testing may be needed to address the questions raised in Carbide's filing, and Vista Chemical will be working with Union Carbide on what should be done.

Q. How do ethoxylates affect the skin?

A. They are moderate to strong irritants, causing reddening and drying of the skin. Continuous exposure to large quantities may lead to absorption through the skin.

Q. What are ethoxylates used for?

Q. Their uses include the manufacture of shampoos and other personal care products. However, in the manufacturing process, ethoxylates are significantly altered, or changed into other products, which are chemically different from ethoxylates. There could be very small concentrations of ethoxylates still present in the personal care products, but far less than in the concentrated chemicals used in the animal testing.

Ethoxylates are also used to make laundry detergents. In these products, ethoxylates may be found in higher levels, but still at much, much lower concentrations than was used in the animal testing.

Q. Is there any evidence of possible harm to humans?

A. Carbide's studies do not speculate on human effects. Ethoxylates have been in use for several decades. A search of the world toxicology literature shows no evidence of any adverse human health effects beyond skin and eye irritation.

If you have further questions, please contact Tom Grumbles, our manager of environmental quality, Extension 3445.

VVV 000010032



UNION CARBIDE CORPORATION
INDUSTRIAL CHEMICALS DIVISION

35 OLD RIDGEBURY ROAD, DANBURY, CT 06817-0001

REVISED (Rec'd 11/10/87)

November 2, 1987

Dear Customer:

The Industrial Chemicals Division systematically conducts extensive toxicological testing to define potential health effects of the chemicals which we market.

A number of alkoxyated nonionic surfactants were recently reevaluated in a continuing product hazard evaluation program; included was a test to determine acute lethal toxicity by absorption through the skin of rabbits. An unusual pattern of toxicity emerged, characterized by visual and microscopic evidence of lung injury, as well as delayed deaths of the test animals. We have reported our findings to the United States Environmental Protection Agency.

The tests indicate that these particular effects are experienced across the various types of nonionic surfactants tested, including alcohol ethoxylates, both primary and secondary, alkyl phenol (nonyl phenol) ethoxylates, as well as ethoxylate/propoxylates. The toxicological findings appear to be consistent, with the degree of hydrophobe branching and hydrophobe chain length not altering the pattern.

* With these chemicals in the market for forty years, we have not been made aware of any specific effects on the human respiratory system. We would also like to indicate that the tests were conducted with laboratory animals, with materials applied at relatively high volumes in the undiluted state and held in contact with the skin for a 24-hour period under an impervious wrapping.

Additional studies are being conducted to determine what, if any, significance these findings may have to human health. The studies will also help determine whether changes in the surfactant Material Safety Data Sheets need to be made.

Should you have any questions on our findings, including additional details, please contact us through your Union Carbide sales representative.

Very truly yours,

W. E. Shackelford
Vice President - General Manager

Copies to: CJM
BEAL
WJBV
Fax to: MJF
PCG
RTM
TGG

GMF:jp
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