

GENERAL ELECTRIC
COMPANY

LAMP DIVISION
LAMP DEVELOPMENT DEPARTMENT

NELA PARK . CLEVELAND 12 . OHIO . . . TELEPHONE GLENVILLE 1-6600

SEPTEMBER 6, 1960

DR. R. A. KEHOE
KETTERING LABORATORY
UNIVERSITY OF CINCINNATI
EDEN AND BETHESDA AVENUES
CINCINNATI 19, OHIO

SUBJECT: LAMP COATING

DEAR DR. KEHOE:

CONCERNING OUR PLANS TO VISIT YOU RELATIVE TO THE SUBJECT MATERIAL, DR. KLINE AND I WOULD PREFER TUESDAY, SEPTEMBER 13TH, WITH A MID-MORNING ARRIVAL.

THE COATING WE WILL DISCUSS IS ONE PRESENTLY UNDER DEVELOPMENT, AND CONSISTS OF BASIC LEAD CARBONATE ($2\text{PbCO}_3\text{-Pb(OH)}_2$) THOROUGHLY SUSPENDED IN CELLULOSE ACETATE BUTYRATE-ALKYD RESIN. SOLUBILITY OF THIS SKIN, WHEN PEELED FROM THE LAMP, WAS AS FOLLOWS:

- A. PULVERIZED AND SUSPENDED IN 50 ML. OF POOLED SALIVA, PH 6.8, WITH CONSTANT STIRRING FOR TWO HOURS AT 98 F - 14 MICROGRAMS/50 ML.
- B. PULVERIZED AND SUSPENDED IN 50 ML. OF POOLED GASTRIC JUICE, PH 1.85, FOR TWO HOURS AT 98 F WITH CONSTANT STIRRING - 200 MICROGRAMS/50 ML.

WHEN THE LAMP ITSELF WAS IMMERSSED IN SALIVA FOR TWO HOURS, ONLY 2 MICROGRAMS WERE FOUND DISSOLVED IN 50 ML.

THE VALUE OBTAINED IN CONDITION (B) REPRESENTED ABOUT 1% OF THE TOTAL LEAD CONTENT OF THE ENTIRE SKIN. THE SOLUBILITY OF THE LEAD CARBONATE CERTAINLY APPEARS MEDIATED BY THE ENCAPSULATION WITH CAB. FROM THIS WE HAVE CONCLUDED THAT INGESTION OF THE ENTIRE COATING FROM ONE OR SEVERAL LAMPS WOULD NOT CONSTITUTE A HAZARD FROM EITHER ACUTE OR CHRONIC POISONING. OUR PRIMARY CONCERN OVER THIS COATING IS TO BE ASSURED THAT IT WOULD PRESENT NO HAZARD TO OUR CUSTOMERS.

THE COATINGS WILL BE OF DIFFERENT PASTEL SHADES AND, AS SUCH, THE LAMPS MAY ATTRACT THE ATTENTION OF YOUNG CHILDREN AND INFANTS. OUR EXPERIENCES WITH CHRISTMAS TREE LAMPS HAVE BEEN THAT THEY MAY, AT TIMES, BECOME OBJECTS FOR SUCKING OR GNOVING. AT SUCH TIMES WE INVARIABLY RECEIVE LETTERS AND TELEPHONE CALLS FROM PHYSICIANS AND PARENTS ASKING ABOUT THE HAZARD AND EXPECTING A RELIABLE ANSWER.

TO THIS END, WE WOULD LIKE YOU TO CONDUCT AN INDEPENDENT EVALUATION OF THESE COATINGS FOR THE PURPOSE OF DETERMINING WHETHER INGESTION OF THE ENTIRE COATING FROM ONE OR SEVERAL LAMPS WOULD CONSTITUTE A HAZARD. HOPEFULLY, WE BELIEVE YOUR CONCLUSIONS WILL CONFIRM OUR OWN THAT NO HAZARD IS INVOLVED. IF SO, WE

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DR. R. A. KEHOE

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WOULD LIKE TO HAVE A STATEMENT FROM YOU AS TO YOUR CONCLUSIONS, TO WHICH WE COULD REFER IN ANSWERING INQUIRIES. IF NOT, WE HOPE YOU WILL BE ENTIRELY CANDID IN EXPRESSING YOUR OWN VIEWS.

SINCE THE LAMP HAS NOT YET BEEN PLACED ON THE MARKET, YOU WILL APPRECIATE THAT THE DESIGN AND CONSTRUCTION ARE STILL PROPRIETARY INFORMATION. WE ASK THAT YOU KEEP THIS REQUEST IN CONFIDENCE AND NOT DISPLAY THE LAMPS OR PUBLISH OR MAKE KNOWN THE RESULTS OF YOUR EVALUATION WITHOUT OUR WRITTEN APPROVAL. DR. KLINE AND I WILL BE BRINGING THE SAMPLE LAMPS WITH US.

WE LOOK FORWARD TO OUR VISIT WITH YOU.

VERY TRULY YOURS,



I. MATELSKY
INDUSTRIAL HYGIENIST
LAMP DIVISION

IM:EJP

CC: EM KLINE, M.D.

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