

National Paint, Varnish and Lacquer Association

I N C O R P O R A T E D

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December 30, 1970

NOTICE TO ALL MEMBERS

SUBJECT: Lead, Mercury and Miscellaneous Matters

This Notice is being promulgated to all members in order to provide a brief review of recent legislative developments and regulatory proposals of direct impact on the industry. THIS MATERIAL SHOULD BE GIVEN IMMEDIATE ATTENTION!

A. MERCURY

1. Mercury Review by Federal Agencies. Attachment No. 1 (F.R. Mercurial Notice) announces a comprehensive effort on the part of the Federal government to review "pesticidal uses of mercury" on a use by use basis to determine what action may be in the public interest with respect to their registration under the Federal Insecticide, Fungicide and Rodenticide Act (7 USC 135 et seq.). Please note that the products of our industry are mentioned specifically as those of particular concern. In this connection, I am advised that the Department of Interior (under the Inter-Agency Agreement) has insisted that the review include "uses of mercury in the aquatic environment".

Although the Notice in the Federal Register was published by the Pesticides Regulations Division, U. S. Department of Agriculture, and the replies are to be addressed thereto, evaluation of the comments received will be made by the new Environmental Protection Agency (EPA) which became operational on December 2, 1970. In this regard, while most offices of EPA have not moved to new locations, they presently have a complex organizational structure, and the transition period may be lengthy and confused.

This current review is most important for -- as reported in the September 21, 1970 issue of COATINGS -- the industry does have to face up to the fact that all uses of mercury may be prohibited in time. This may be our last opportunity to make a good case for mercury if its uses, in any manner, are to be saved.

Your written comments should be forwarded to the Director, PRD, USDA at the address shown in Attachment No. 1 prior to February 1, 1971. It is requested that a copy of your comments be provided NPVLA as soon as available in order that an Association position may be forwarded if deemed appropriate.

cc: H.E. SPITZER

CHAS. MARTINS

G. SONJA DERNER

PROGRESS THROUGH COOPERATION

0007-SWP-000005810

2. Mercury -- Illinois. The Illinois Pollution Control Board first held hearings on October 14, 1970 on mercurial pollutants in surface water coming under the jurisdiction of the State of Illinois. Industry representatives from the Chicago PVLA and from NPVLA attended these hearings, at which time it was indicated that mercury discharge might be limited to 1 part per billion. Subsequently, after a comprehensive survey of manufacturers in Illinois, Daniel S. Ring, NPVLA General Counsel, filed a brief seeking standards which would be practical and reasonable. Edward F. O'Toole, General Counsel for the Chicago PVLA represented NPVLA at a second hearing on this matter on December 22.

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As a result of these actions, the Illinois Board has delayed its decision as to the mercury as metal which would be allowed in waste water being emitted from plants coming under its jurisdiction. Additional data is being gathered in this matter in order to justify the industry's position that, at the present time, mercury is essential for the manufacture of paints and that there is no adequate substitute for it.

3. Mercury -- New York. The Association has requested clarification of the new pesticide control regulations of the State of New York which become effective on January 1, 1971. As presently written, the regulations provide that some 60 substances or mixtures of substances, when used as pesticides, are restricted in relation to purchase, distribution, sale, use and possession unless registered with the New York State Department of Environmental Conservation. The regulations further provide that no permitted uses will be allowed for ten specific chemical substances, which includes mercury compounds.

In a letter request to Mr. Charles H. Frommer, Superintendent, Bureau Forest Insect & Disease Control, New York State Department of Environmental Conservation, NPVLA requested that a ruling be issued to the effect that paint products -- as presently formulated with mercury compounds and not requiring registration as economic poisons under current laws and regulations -- be exempted from the provisions of the new New York State Pesticide Regulations and that the importation into New York State be authorized for mercury compounds for use in paint products not intended as pesticides. As of this writing, no decision has been announced by the New York officials on the NPVLA request.

4. Mercury -- Other States. Several other states have initiated actions similar to those of New York and Illinois discussed above. The first of these was Texas, which established precise limitations on the amounts of hazardous substances allowed to be discharged into its public water. This action of the Texas Water Quality Board (Order No. 70-0828-5) became effective November 25, 1970. The Illinois Pollution Control Board also has announced its intention to extend hearings to all other heavy metals.

Arizona, Oklahoma, Vermont and Florida all have proposed legislation or regulations on the subject of mercury pollution, either by waste water discharge or by pesticides. Florida, whose proposal is similar to that of New York, has agreed to hold action in abeyance pending completion of the Federal review and evaluation of all pesticidal uses of mercury.

B. LEAD-BASED PAINT LEGISLATION

On November 27, 1970 the membership was advised that two legislative proposals (H.R. 19172 and S. 3216) dealing with the elimination of lead-based paints were pending before the Senate Committee on Labor and Public Welfare.

After continued negotiation on the part of your Association staff and numerous communications from industry members expressing their concern, the legislation was amended and reported by the Senate Committee on December 14, 1970, with a recognition that the unique qualities of lead-based paints should continue to be available in instances where it is inaccessible to children. The prohibition against the use of lead-based paints -- as defined in ANSI Standard Z66.1 and in the proposed legislation -- was expanded to include "...porches and exterior surfaces to which children may be commonly exposed, of residential housing."

The Senate passed the amended version of the bill on December 17, 1970. As of this writing, the House -- which passed the overly-restrictive legislation on October 5, 1970 -- had not yet voted on the amended bill. If the House does not accept the amended version and the differences cannot be resolved in Joint Conference, the bill will die when the 91st Congress adjourns. In this event, it is certain that similar legislation will receive priority attention by the 92nd Congress which convenes in January 1971.

C. MIL-STD-1341A

The Naval Supply Systems Command, as action agency for the Department of Defense, has announced that MIL-STD-1341A will be converted to a Federal standard in the near future.

This Military Standard, which establishes an identification system for packages and containers containing hazardous industrial chemicals and materials, has been included as a part of all Invitations for Bid and Requests for Quotations issued by the Department of Defense since its effective date of October 1, 1970. (See Coatings, issue of October 19, 1970).

MIL-STD-1341A incorporates two industry standards by reference -- the National Fire Protection Association (NFPA) Standard 704 M and the MCA Guide to Precautionary Labeling of Hazardous Chemicals, Manual L=1. It also includes use of the Material Safety Data Sheet, the U. S. Department of Labor form that has been required for use by marine coatings manufacturers since July 1, 1970. (See Legal Bulletin No. 72).

The Naval Supply System Command has invited comments on MIL-STD-1341A prior to January 20, 1971. Further details regarding the use of this prospective Federal Standard may be obtained by writing the Office of Legal and Government Relations, NPVLA Headquarters in Washington. Copies of MIL-STD-1341A, as currently drafted, are available on request from the Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, Pa. 19120.

D. DOT ESPOUSES CLOSED-CUP TAG TEST TO DETERMINE FLASH POINTS

The Hazardous Materials Regulations Board of the Department of Transportation will hold hearings, beginning March 2, 1971, to consider the advisability of adopting the Tagliabue closed-cup tester (ASTM D56-70) in determining the flash point of flammable liquids. This notice is docketed at HM-67. The Regulations presently specify the Tagliabue open-cup tester (ASTM D1310-67).

Reservations expressed over continued use of the open-cup tester are that it lacks the precision, reliability, and reproducibility needed for measuring flammability hazard in shipment. The stated objective in this proposal is testing accuracy, and there is no intention to change existing classifications of flammability standards. Thus, materials flashing at a lower point with the closed-cup method are accordingly assigned flash points comparable to the open-cup method. The Board asserts that conversion to the closed-cup is consistent with the preference of the National Fire Protection Association, National Academy of Sciences, United Nations Inter-governmental Maritime Consultative Organization, and many Western European industrial countries. Moreover, the Board minimizes the open-cup test simulating conditions of the average spill situation in shipment. It is noted that such spills usually occur in confined compartments, such as ship holds, truck vans, or rail cars. The hazard is greatest in these situations due to overpressures and convection currents.

NPVLA will be presenting the views of the paint industry at the hearings on this proposal. Your comments and observations would be appreciated in consideration of formulating an industry position. Also, it would be helpful if copies of testimony presented on behalf of individual members were sent NPVLA, to coordinate and complement the overall position. Full text of the proposal, as published in the Federal Register, accompanies, as Attachment No. 2.

E. SUMMARY

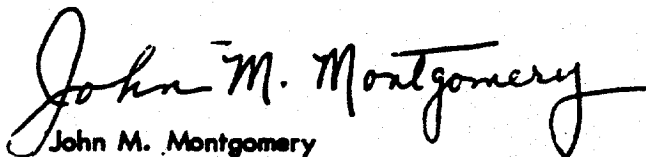
Events of the past few months have demonstrated that it is vital that industry members keep informed of legislative and regulatory proposals at all jurisdictional levels. Your Association devotes a maximum effort to the collection of information of this nature and the initiation of timely action, when appropriate.

Input from the Local Associations and from individual manufacturers throughout the country is especially helpful to alert NPVLA of proposals at the state and local levels. This permits the Association to assist in developing a coordinated position and, hopefully, to achieve some measure of uniformity. Your letters and telephone calls always are welcome.

In this regard, the U.S. Chamber of Commerce has announced that it will commence a series of Legislative Conferences in 1971 in order to provide accurate and timely information to its members in the field. The first of the series will be held at the Sheraton Biltmore in Atlanta, Georgia on February 3, 1971. Other conferences are scheduled at the Pick Congress Hotel in Chicago on February 17 and the Villa Capri Hotel and Motel on March 5.

In supporting these Legislative Conferences, NPVLA is contemplating adding a specialized briefing for its own industry members in order to discuss in greater detail consumerism and pollution and other matters of direct interest to our industry. Further details on these meetings will be published in COATINGS, and -- you are urged to attend such a meeting when held in your area, or have one or more of your representatives attend.

With very best wishes for the New Year,

A handwritten signature in cursive script that reads "John M. Montgomery". The signature is fluid and extends across the width of the text block.

John M. Montgomery
Counsel

Director of Government & Industry Relations

JMM/ew
attachments

DEPARTMENT OF AGRICULTURE

Agricultural Research Service

MERCURIAL PESTICIDES

Request for Submission of Views With Respect to Uses

Data is accumulating on environmental contamination through the use of mercury and its compounds. Recent surveys reveal mercury residues in water and in aquatic life. Use of mercury which results in water contamination is potentially injurious to man and his environment.

Current information on levels in the environment has warranted the discontinuation of certain mercurial pesticide uses. Accordingly, this Division issued notices of cancellation and suspension of registration of alkyl mercury compounds with directions for use as seed treatment and recently issued notices of cancellation of registration of mercurials with directions for use as algicides or slimicides and in laundries.

In view of the foregoing facts, all other pesticidal uses of mercury are being reviewed on a use by use basis to determine what action is in the public interest with respect to their registration under the Federal Insecticide, Fungicide, and Rodenticide Act. (7 U.S.C. 135 et seq.) Areas of particular concern involve the following uses: (1) On hospital, household, institutional, and restaurant surfaces, (2) in interior paints, (3) on ornamental shrubs, trees, and turf, (4) on freshly sawed lumber. All other mercury uses likewise are being reviewed including those for the treatment of fabrics, hides, leather fabrics, paper, plastic, other paint uses, etc.

This notice is to afford interested persons an opportunity within 60 days of publication to submit their views on uses of mercury compounds subject to registration under the Federal Insecticide, Fungicide, and Rodenticide Act. This refers to uses for which notices of cancellation or suspension of registration have not been previously issued. When preparing and submitting views or comments, the following items should be covered in the submission: (1) Use pattern, i.e., crops or articles treated and formulations and rates of application, (2) the pest control achieved including expected damage without the use of mercurials, (3) substitutes that are available with comments on the safety and effectiveness of use, (4) data in relation to hospital or environment contamination or other hazards of use.

All persons who desire to submit data, views, or argument in connection with this matter should submit same in triplicate with the Pesticides Regulation Division, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C. within 60 days after the date of this notice in the Federal Register. Please make reference to this notice in the submission to "F.R. Mercurial Pesticides."

All written submissions submitted in response to this notice will be available for public inspection in the Pesticides Regulation Division, U.S. Department of Agriculture, in a manner convenient to the public during regular business hours (7 CFR 1.3).

Done at Washington, D.C., this 1st day of November 1970.

G. G. Roeder
Acting Director
Pesticides Regulation Division

(F.R. Doc. 70-10230; Filed 11-1-70; 9:31 a.m.)

DEPARTMENT OF TRANSPORTATION

Hazardous Materials Regulations
Board

[49 CFR Part 173]

[Docket No. HM-57; Notice 70-53]

TRANSPORTATION OF HAZARDOUS MATERIALS

Flash Points of Flammable Liquids.

The Hazardous Materials Regulations Board is considering amending §§ 173.115 and 173.119 of the Department's Hazardous Materials Regulations to specify use of the Tagliabue (Tag) closed-cup tester (ASTM D 56-70) to determine flash points of flammable liquids, instead of the Tagliabue (Tag) open-cup tester (ASTM D 1310-67), presently specified.

The flash point is generally accepted as a useful means to determine the flammability of flammable liquids, and therefore their potential fire hazard during transportation. The Tagliabue open-cup testing method, which has been in use with only minor modification for many years, lacks the precision, reliability, and reproducibility necessary to properly estimate the flammability hazard that may be encountered during transportation.

This notice is not intended to change the present established classification ranges or packaging of flammable liquids. Its purpose is to propose adoption of a more accurate method for determining flash points than the Tag open cup presently affords.

As part of the Department's overall review of the Hazardous Materials Regulations, the Board and the staff of the Office of Hazardous Materials (OHRM) have been evaluating methods used for classification of materials according to the hazard presented during transportation. OHRM contracted with the Safety Research Center, U.S. Bureau of Mines, to examine the limitations of the available flash point tests and to recommend the best method for adoption by DOT.

In reaching their conclusions, the Bureau of Mines measured the present state of the art against the following criteria:

1. Repeatability (data obtained by the same analyst in several determinations, using the same equipment and the same sample).
2. Reproducibility (data obtained by several analysts, each using a different piece of equipment of the same type, and using the same sample).
3. Reliability in assessing the fire or explosion hazard.

In addition, the Bureau of Mines considered and evaluated all comments received in response to that part of a prior notice of proposed rule making (NPRM) dealing with definitions of flammable liquid, flashpoint, open-cup tester, and closed-cup tester. The results and recommendations of the Bureau's study have been reported.¹

The Bureau's report recommends that the Tag closed-cup method be used to determine flashpoints of flammable liquids for purposes of the DOT Hazardous Materials Regulations. The conclusions, proposing adoption of the closed-cup method, may be summarized as follows:

1. The closed-cup method is more precise and reliable than the open-cup method, gives more reproducible data, and provides a more conservative estimate of the hazard presented by the formation of flammable vapor-air mixtures under either confined or unconfined conditions.

2. "It is often proposed that an open-cup more nearly approximates the geometry of a spill situation than does a closed-cup. In our judgment, this is a trivial consideration in choosing among the variations of existing apparatus. The actual likelihood of ignition of a spill depends heavily upon factors which are beyond the scale of laboratory apparatus, such as the cooling of the liquid surface by evaporation or the gustiness of the atmosphere."

"The greatest explosion hazard results from leakage or spillage into surroundings that provide some confinement, such as a railroad box car, a van-type truck, or the hold of a ship. In this situation, convection currents aid the formation of homogeneous vapor-air mixtures and the magnitude of overpressures in confined combustion is usually greatest with homogeneous mixtures. Here again, the closed-cup gives the best definition of hazard." Experience shows that spills and leaks in confinement are common

accident situations and must be considered in the development of safety criteria.

3. Due to its greater reliability, the closed-cup method has been accepted by the National Fire Protection Association, the National Academy of Sciences, the United Nations Intergovernmental Maritime Consultative Organization (IMCO), and many western European industrial countries, including Great Britain, France, West Germany, Sweden, and the Netherlands.

Additional reasons supporting the closed-cup method may be found in a review of various technical publications and comments received on a prior notice of rule making.² The following is quoted from the International Chamber of Shipping's statement which was attached to the IMCO October 15, 1969, communication to the sixth session of the Committee of Experts on the Transport of Dangerous Goods:

The closed-cup method of testing should be used rather than the open-cup method in view of the former's much better precision.³

Proponents of the open-cup method point out that improvement in technique in recent years has resulted in increased precision and reproducibility of data. It is agreed that refinement of test methods has brought some improvement. However, in spite of this improvement, the Board believes that the open cup is still not equal to the closed-cup method for overall transportation safety purposes. For example, the report of Technical Subcommittee No. II of the Chicago Society for Paint Technology⁴ summarizes the testing done during 1968 with six different types of flashpoint testers and 27 solvents having flash points ranging from 30° F. to 190° F. The report concluded that, "All closed-cups were considerably more reliable and easier to work with than the other cups . . ."

Some comments received on Docket HM-3; Notice No. 68-3 stated that a closed-cup is not responsive to mixtures that contain low-volatility nonflammable components; it is, on the other hand, far too stringent for mixtures containing very small (less than 0.3 percent) amounts of highly volatile flammable compounds. During the test of a mixture, the closed-cup can concentrate nonflammable vapors as readily as flammable vapors. These nonflammable vapors can have a suppressant effect upon the flammability of the sample, thereby raising the flash point beyond the limit prescribed in the regulations for flammable liquids. In an open-cup, part or all of the vapors can escape, thus reducing this suppressant effect. On the other hand, comments noted that a non-flammable anti-knock compound containing less than 0.2 percent of dissolved hydrocar-

¹ Docket No. HM-3; Notice No. 68-3 (35 F.R. 3382, Feb. 27, 1968).

² Kuchta, Joseph M. and Burgess, David, Report No. 8 4131, Apr. 29, 1970, Safety Research Center, U.S. Bureau of Mines. This document is available from the Clearing House for Federal Scientific and Technical Information, National Bureau of Standards, U.S. Department of Commerce, Springfield, Va. 22151 at a cost of \$3 per copy, or Microfiche copy at 50 cents.

³ Kuchta, Joseph M. and Burgess, David, Report No. 8 4131, Apr. 29, 1970, Safety Research Center, U.S. Bureau of Mines, p. 8.

⁴ Ibid., p. 6.

⁵ Docket No. HM-3; Notice No. 68-3 (35 F.R. 3382, Feb. 27, 1968).

⁶ United Nations Economic and Social Council, E/CN.3/CONF.5/R.198.

⁷ Probst, E. G., Correlation of Apparatus for Measuring Flash Point of Solvents, J. of Paint Technology, Vol. 40, No. 527, pp. 576-81 (December 1968).

bon, because of trapping of the hydrocarbon traces in the vapor space of the apparatus, had a closed-cup flash point of 58°-73° F., compared to an open-cup flash point of 180°-245° F.

The board realizes that none of the presently available test methods accurately applies to all mixtures. To cover the unusual behavior of certain mixtures, the Board can issue the necessary rulings. For example, the Board could classify such mixtures according to the flash point of their major component. There may be alternative means to cover certain mixtures which do not lend themselves to the proposed testing procedure, and the Board welcomes any suggestions in this regard. The decision as to proper classification of exceptions could be based upon other data or experience showing that the liquid is more or less hazardous than the flash point data indicate. The exceptions should not govern the general rule, however, and the Board is concerned with covering the great majority of substances by a single test method.

In defining flammable liquid,* the United Nations Organization recognizes both the open- and closed-cup methods. It is the Board's understanding that the U.N. included the open-cup method principally to accommodate the United States' regulations.

The United Nations Committee of Experts on the Transport of Dangerous Goods, in arriving at the value of 73° F. for the closed-cup as being equivalent to 80° F. in the open-cup test, considered all available information on the subject. The Paint Technology Report shows an average difference of 7° F. between the Tag open- and closed-cup methods. A review of the pertinent literature confirms this relationship. Therefore, the Board intends to substitute 73° F. for 80° F. in the Hazardous Materials Regulations as the upper limit for flash points of regulated flammable liquids in implementing the change from the open-cup to the closed-cup method. The Board does realize that for a few materials the difference between methods may be much more. It is important to emphasize that this change is in no way an attempt to change the classification of the existing flammable liquids. It is recognized, however, that there may be some isolated cases where the classification would change based upon closed-cup test results. The Board would appreciate receiving advice on how to deal with such situations so as to minimize the hardship on industry.

Upon adoption of this proposal, all references in the Department's Hazardous Materials Regulations will be changed from open-cup to closed-cup.

The Board intends to retain the lower flash point limit of 20° F., as prescribed

*United Nations, Transport of Dangerous Goods (1966), Vol. I, p. 6, ST/SCA/81/Rev. 1, E/CN.3/Conf. 8/10/Rev. 1.

*Probst, E. G., Correlation of Apparatus for Measuring Flash Point of Solvents, J. of Paint Technology, Vol. 48, No. 527, pp. 576-81 (December 1966).

in § 173.119, open-cup for the closed-cup method. The corresponding flash point difference between the open- and closed-cup methods at this temperature range generally would be very slight, and therefore a change in the lower limit is considered unnecessary.

In the event that the new classification, "Combustible liquids," is established pursuant to proposed rule making,** the test method proposed herein, conducted at an appropriately reduced heating rate, would be prescribed in place of the open-cup test. The equivalent closed-cup temperatures would be substituted for the adopted "Combustible liquid" open-cup temperatures.

Interested persons are invited to give their views on the amendment proposed herein. Communications should identify the docket number and be submitted in duplicate to the Secretary, Hazardous Materials Regulations Board, Department of Transportation, 400 Sixth Street SW., Washington, DC 20590. Communications received on or before March 2, 1971, will be considered before final action is taken on the proposal. All comments received will be available for examination by interested persons at the Office of the Secretary, Hazardous Materials Regulations Board, both before and after the closing date for comments.

In consideration of the foregoing, 49 CFR Part 173 would be amended as follows:

(A) In § 173.115 paragraph (a) would be amended; paragraphs (d) and (e) would be added to read as follows:

§ 173.115 Flammable liquids; definitions.

(a) For the purpose of Parts 170-189 of this chapter, "Flammable liquid" means any liquid having a closed-cup flash point at or below 73° F.

(d) "Flash point" of a liquid means the minimum temperature of the liquid at which it gives off vapor sufficient to form an ignitable mixture with the air near the surface of the liquid or within the container used.

(e) "Closed-cup" means the method of determining flash point as specified in the Standard Method of Test for Flash Point by the Tagliabue (Tag) Closed Tester (ASTM D 56 70) (American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA). In determining the flash points of liquids having a viscosity of 4 centipoise or higher (at 100° F.) the prescribed 2° F./minute rate of the Tag test must be reduced to 0.5° F./minute, or the temperature differential between the sample and the bath must be maintained at 8° F. or less.

(B) In § 173.119 the introductory text of paragraphs (b) and (1) would be amended to read as follows:

§ 173.119 Flammable liquids not specifically provided for.

(b) Flammable liquids with flash point above 20° F. Flammable liquids with flash point above 20° F. and having

**Docket No. HM-42; Notice No. 70-3 (35 F.R. 3295, Feb. 21, 1970).

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