



B. F. Goodrich Chemical Company

A DIVISION OF THE B. F. GOODRICH COMPANY

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February 12, 1975
RLSP-139-75

Gentlemen:

On October 1, 1974, the Occupational Safety and Health Administration (O. S. H. A.) announced the Permanent Vinyl Chloride Health Standard for reducing worker exposure to vinyl chloride monomer. In accordance with this action, we have revised the Material Safety Data Sheets for our Geon vinyl chloride latexes.

We are enclosing revised Material Safety Data Sheets to be noted and used in place of those which, according to our records, were sent to you previously. Also enclosed is a copy of our L-13 Bulletin, Handling and Storing Latexes, and a copy of a January 6, 1975, letter from Mr. R. L. Steller, Product Director of Latex and Specialty Chemicals. The letter describes the current situation with respect to residual vinyl chloride monomer contained in our Geon vinyl chloride latexes.

Please let us know if there are questions.

Sincerely,

Robert L. Spencer

Robert L. Spencer,
Technical Service Manager - Latex

CRW

Enclosures

2/24/75

Send 1 copy to each line:

Date in: not 15 days
Date Sheet

RE James P. French

Dr. G. R. Adams / Dick Byrnes
E. Prineas

D. French / PVC Plant

R. Spiegelhalter

Personnel / Safety

W. L. French

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SECTION III - PHYSICAL DATA

Boiling Point (°F.)

Water - 212°F.

Specific Gravity ($H_2O = 1$)

1.1 - 1.2

Solubility in Water

Latex is water dilutable -
polymer is insoluble

Percent Volatile by Weight (%)

Water: 44 - 50%

Appearance and Odor

White-to-cream colored liquid.
Slight characteristic odor.

pH

7.8

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Extinguishing Media

For dry polymer - water

Special Fire Fighting Procedures

When dry polymer is forced to burn, polyvinyl chloride will contribute mainly CO_2 , CO, and HCl gases and smoke. Self-contained breathing apparatus should be used in closed areas such as warehouses.

Unusual Fire and Explosion Hazards

NOTE: Vinyl chloride monomer is explosive in a range of 4% to 22% by volume in air. See page 7 of L-13 Bulletin. Our vinyl latexes are stripped of residual monomer to less than 0.01% by weight (on latex solids weight). At the specification maximum of 0.01% residual monomer, an explosive level cannot be attained in the vapor space of a closed vessel at normal latex storage temperatures. See pages 1 and 5 of L-13 Bulletin for our recommended storage temperatures. All storage tanks should be vented to the outside.

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value

See O. S. H. A. Chapter XVII, Part 1910, Federal Register, Volume 39, No. 194 (10-4-74) and addendum attached. The proposed T.L.V. for vinylidene chloride monomer is 10 ppm (American Conference of Governmental Industrial Hygienists - 1974).

Effects of Overexposure

Vinyl chloride/vinylidene chloride/acrylic latex contains vinyl chloride monomer, a cancer-suspect agent. Open, handle, and use under well-ventilated conditions. Refer to O. S. H. A. regulation above. The latex contains residual vinylidene chloride monomer. In 1974, the American Conference of Governmental Industrial Hygienists proposed a T.L.V. of 10 ppm. In October, 1974, reports were received from Europe that exposure of Wistar rats to high concentrations of vinylidene chloride monomer resulted in some increased incidence of abdominal tumors. Further experimental testing is being initiated both in Europe and U. S. A. Liquid contact with eyes may cause irritation.

Emergency and First Aid Procedures

1. DO NOT INGEST - If ingested, contact physician.*
2. AVOID SKIN CONTACT - Wash thoroughly with cold water any part of the body which comes in contact with latex.

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Emergency and First Aid Procedures (continued)

3. AVOID EYE CONTACT - Immediately flush eyes with water for at least 15 minutes. Contact physician.*

*NOTE: The pH of the latex should be given to the attending physician.

SECTION VI - REACTIVITY DATA

Stability

Stable X
Unstable

Hazardous Decomposition Products

See Section IV

Hazardous Polymerization

May Occur
Will not Occur X

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled

Dam up, mop or absorb on inert material, and place into containers. If spilled in enclosed area, ventilate. Polymer can be separated from water through coagulation by the addition of alum. NOTE: Spilled latex is very slippery; use care to avoid falls. Latex will leave a film on drying. Remove saturated clothing and wash contacted skin areas with soap and water.

Waste Disposal Method

Sanitary landfill in accordance with federal, state, and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type)

See Section V and addendum attached.

Ventilation

Exhaust to ventilate. Open, handle, and use under well-ventilated conditions.

Protective Gloves

Protective gloves suggested.

Eye Protection

Safety glasses suggested.

Other Protective Equipment

See Section IV.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing

Normal cleanliness. See attached L-13 Bulletin, Handling and Storing Latexes, and Section V of this data sheet and addendum attached.

These data are based on tests believed to be reliable. They are given only for your information and no warranty, express or implied, is made as we cannot guarantee the results of operations not under our direct control. The information in this publication is not intended as permission or recommendation to practice a patented invention without permission of the patent owner.

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ADDENDUM

On October 1, 1974, the Occupational Safety and Health Administration (O. S. H. A.) announced the Permanent Vinyl Chloride Health Standard (Title 29 - Labor, Chapter XVII, Part 1910) for reducing worker exposure to vinyl chloride monomer. The standard is detailed in the Federal Register, Volume 39, Number 194, October 4, 1974, pages 35890-35898.

As polyvinyl chloride latex is manufactured in the industry today, detectable quantities of vinyl chloride monomer remain in the product. While this may not result in detectable quantities in the general atmosphere in your plant, there are conditions under which residual monomer may accumulate to measurable amounts. It is the intent of this addendum to indicate the order of magnitude of the trace amounts of residual vinyl chloride monomer presently in our products at the time of manufacture and to point out potential areas of accumulation.

Geon latexes contain a maximum of 0.01% (based on latex solids weight) of vinyl chloride monomer. We are working diligently to reduce these trace amounts and progress is constantly being made.

Since vinyl chloride monomer is volatile, it is released from the latex gradually in storage and more rapidly under heat of drying and further processing. In all cases, Geon latexes should be opened, handled, and used under well-ventilated conditions. Refer to O. S. H. A. Standard for details.

Analysis has shown that areas where vinyl monomer might concentrate are:

- (1) In enclosed vessels such as bulk railcars, bulk trucks, storage tanks, and drums. The air space above the latex should be purged and monitored for vinyl monomer or adequate protection provided prior to exposure of personnel.
- (2) In processing areas such as compound preparation, spraying, or coating. Suitable ventilation should be provided.
- (3) In drying and curing areas. Normal good operating practice in exhausting volatiles may be sufficient.

The concentration of vinyl chloride monomer at the mandated exposure limits cannot be detected by odor so that suitable test equipment and methods must be used as indicated.

Intense technical efforts by us are resulting in a rapidly changing situation. As additional information becomes available, we shall keep you informed.

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