



September 24, 2007

Mr. Stephen Johnson, Administrator
United States Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Mr. Johnson,

We are writing to urgently request your assistance in preventing the registration of methyl iodide for use as a soil fumigant. As chemists and physicians familiar with the effects of this chemical, we are concerned that pregnant women and the fetus, children, the elderly, farm workers, and other people living near application sites would be at serious risk if methyl iodide is permitted for use in agriculture (80-275 pounds per acre).

We have several concerns about a decision that would allow indiscriminate release of methyl iodide into the environment, summarized below.

Methyl iodide is a highly reactive chemical used in some industrial processes and in research laboratories for the synthesis of new molecules. Alkylating agents like methyl iodide are extraordinarily well-known cancer hazards in the chemical community because of their ability to modify the chemist's own DNA, as well as the target molecule in the flask, leading to mutations that are potentially very harmful. Because of this potential toxicity, chemists who work with this material use the smallest amounts possible and take great precautions to avoid exposure. Because of methyl iodide's high volatility and water solubility, broad use of this chemical in agriculture will guarantee substantial releases to air, surface waters and groundwater, and will result in exposures for many people. In addition to the potential for increased cancer incidence, U.S. EPA's own evaluation of the chemical also indicates that methyl iodide causes thyroid toxicity, permanent neurological damage, and fetal losses in experimental animals. EPA's exposure assessment suggests that the Agency is willing to accept exposures at levels that may cause these effects in humans up to five percent of the time near the application site.

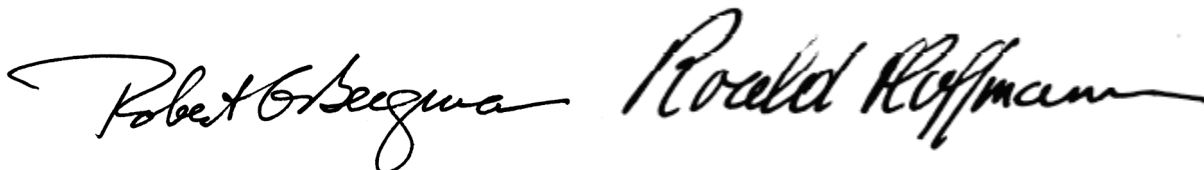
We are skeptical of U.S. EPA's conclusion that the high levels of exposure to methyl iodide that are likely to result from broadcast applications are "acceptable" risks. U.S. EPA has made many assumptions about toxicology and exposure in the risk assessment that have not been examined by independent scientific peer reviewers for adequacy or accuracy. Additionally, none of U.S. EPA's calculations account for the extra vulnerability of the unborn fetus and children to toxic insults. We know that developing organisms are generally more sensitive than adults, yet no additional safety factors were applied to account for this sensitivity, as is usual for most pesticides. In fact, based on results from a questionable model of how the pesticide is detoxified by the body, U.S. EPA has actually decreased the size of the safety factors that typically add some level of protection from exposures to pesticides.

Finally, we are perplexed that U.S. EPA would even consider the introduction of a chemical like methyl iodide into agricultural use. The Agency has spent a great deal of effort to reduce industrial toxic emissions from chemical manufacturing plants. It is astonishing then that the Office of Pesticide Programs is working to legalize broadcast releases of one of the more toxic chemicals used in manufacturing into the environment.

As members of the scientific community, we urge you to do whatever is possible to prevent this chemical from ever becoming a registered pesticide. At the very least, we ask that you delay the decision and assemble a blue-ribbon panel of independent (conflict-free) scientists such as a committee of the National Research Council to provide peer review and scientific scrutiny of U.S. EPA's safety assessment of this chemical. We would be happy to suggest panel members.

Thank you for your consideration. Please note that titles and affiliations of the signatories below are for identification only. Opinions are personal and not institutional.

Sincerely yours,



Robert G. Bergman
Gerald E. K. Branch Distinguished Professor
University of California, Berkeley
Member, National Academy of Sciences

Roald Hoffmann
Nobel Laureate, Chemistry 1981
Frank H. T. Rhodes Professor of Humane Letters
Cornell University
Member, National Academy of Sciences

John B. Fenn
Virginia Commonwealth University
Nobel Laureate, Chemistry 2002
Member, National Academy of Sciences

Williams S. Knowles
Nobel Laureate, Chemistry 2001
Member, National Academy of Sciences

Richard R. Ernst
Professor Emeritus
ETH Zürich
Nobel Laureate, Chemistry 1991
Foreign Associate, National Academy of Sciences

Robert H. Grubbs
Victor and Elizabeth Atkins Professor of Chemistry
California Institute of Technology
Nobel Laureate, Chemistry 2005
Member, National Academy of Sciences

C. Bradley Moore
Vice President for Research
Northwestern University
Member, National Academy of Sciences

Jerome A. Berson
Sterling Professor Emeritus of Chemistry
Yale University
Member, National Academy of Sciences

Dudley Herschbach
Baird Professor of Science, Emeritus
Department of Chemistry
Harvard University
Member, National Academy of Sciences

Brian M. Hoffman
Professor of Chemistry
Northwestern University
Member, National Academy of Sciences

Prof. Charles H. DePuy, Emeritus
Department of Chemistry and Biochemistry
University of Colorado, Boulder
Member, National Academy of Sciences

Richard J. Saykally
Professor of Chemistry
University of California Berkeley
Member, National Academy of Sciences

Clayton Heathcock
Chief Scientist, QB3 Berkeley
California Institute for Quantitative Biosciences
University of California Berkeley
Member, National Academy of Sciences

Robert J. Silbey
Professor of Chemistry
Massachusetts Institute of Technology
Member, National Academy of Sciences

Peter J. Stang
Distinguished Professor of Chemistry
University of Utah
Member, National Academy of Sciences

Royce W. Murray
Kenan Professor of Chemistry
University of North Carolina
Member, National Academy of Sciences

Thomas C. Bruice, Research Professor in
Chemistry & Biochemistry
University Of California at Santa Barbara
Member, National Academy of Sciences

Charles S. Parmenter
Distinguished Professor of Chemistry
Indiana University
Member, National Academy of Sciences

Stephen J. Lippard
Arthur Amos Noyes Professor of Chemistry
Massachusetts Institute of Technology
Member, National Academy of Sciences

Marvin H. Caruthers
Distinguished Professor of Chemistry and
Biochemistry
University of Colorado, Boulder
Member, National Academy of Sciences

John E. Bercaw
Centennial Professor of Chemistry
California Institute of Technology
Member, National Academy of Sciences

Bruce J. Berne
Higgins Professor of Chemistry
Columbia University
Member, National Academy of Sciences

John S. Waugh
Professor of Chemistry and Institute Professor
Emeritus
Massachusetts Institute of Technology
Member, National Academy of Sciences

John D. Corbett
Professor of Chemistry
Distinguished Professor of
Liberal Arts and Sciences
Iowa State University
Member, National Academy of Sciences

John D. Roberts
Institute Professor of Chemistry, Emeritus
California Institute of Technology
Member, National Academy of Sciences

K.C. Nicolaou
Aline W. and L.S. Skaggs Professor
of Chemical Biology, and
Darlene Shiley Chair in Chemistry and
Distinguished Professor of Chemistry
University of California, San Diego
Member, National Academy of Sciences

Laura Kiessling
Hilldale Professor of Chemistry and Laurens
Anderson Professor of Biochemistry
University of Wisconsin
Member, National Academy of Sciences

R. Stephen Berry
James Franck Distinguished Service Professor
Emeritus
Department of Chemistry
The University of Chicago
Member, National Academy of Sciences

Martin Saunders
Professor of Chemistry
Yale University
Member, National Academy of Sciences

James L. Dye
University Distinguished Professor Emeritus
Department of Chemistry
Michigan State University
Member, National Academy of Sciences

Jean-Michel Saveant
Professor of Chemistry
University of Paris
Foreign associate, National Academy of Sciences

Jacob Bigeleisen
Distinguished Professor Emeritus
State University of New York, Stony Brook
Member, National Academy of Sciences

Charles P. Casey
Homer B. Adkins Emeritus Professor of Chemistry
University of Wisconsin-Madison
Member, National Academy of Sciences

Dietmar Seyferth
Robert T. Haslam and Bradley Dewey Professor
Emeritus
Department of Chemistry
Massachusetts Institute of Technology
Member, National Academy of Sciences

Fred W. McLafferty
Peter J. W. Debye Professor of Chemistry,
Emeritus
Cornell University
Member, National Academy of Sciences

John T. Yates, Jr.
Professor of Chemistry
University of Virginia
Member, National Academy of Sciences

Robert L. Letsinger
Hall Professor of Chemistry Emeritus
Northwestern University
Member, National Academy of Sciences

Maurice S. Brookhart
W. R. Kenan, Jr. Professor of Chemistry
University of North Carolina, Chapel Hill
Member, National Academy of Sciences

Duilio Arigoni, Professor Emeritus
Swiss Federal Institute of Technology
Foreign Associate, National Academy of Sciences

Malcolm H. Chisholm
Distinguished University Professor,
Ohio State University
Member, National Academy of Sciences

Richard N. Zare
Marguerite Blake Wilbur Professor in Natural
Science
Stanford University
Member, National Academy of Sciences

Allen J. Bard
Norman Hackerman/Welch Regents' Chair in
Chemistry
The University of Texas at Austin
Member, National Academy of Sciences

Harry B. Gray
Arnold O. Beckman Professor of Chemistry
California Institute of Technology
Member, National Academy of Sciences

Adrian Bax
NIH Senior Scientist
National Institute of Diabetes and Digestive and
Kidney Diseases
National Institutes of Health
Member, National Academy of Sciences

Kenneth B. Wiberg
Professor of Chemistry, Emeritus
Yale University
Member, National Academy of Sciences

Jerrold Meinwald
Goldwin Smith Professor of Chemistry, Emeritus
Cornell University
Member, National Academy of Sciences

Harold A. Scheraga
Todd Professor of Chemistry Emeritus
Cornell University
Member, National Academy of Sciences

Stephen R. Leone
Professor of Chemistry and Physics
Director, Chemical Dynamics Beamline
Lawrence Berkeley National Laboratory
Member, National Academy of Sciences

Ted Schettler MD, MPH
Science Director
Science and Environmental Health Network
Ann Arbor, MI

Peter Orris, MD, MPH
Professor and Chief of Service
Environmental and Occupational Medicine
University of Illinois at Chicago Medical Center

Peter Guy Wolynes
Professor of Chemistry and Biochemistry
University of California San Diego
Member, National Academy of Sciences

Edward I. Solomon
Monroe E. Spaght Professor
in Humanities and Sciences and SSRL Professor
Stanford University
Member, National Academy of Sciences

Rob S. McConnell, MD
Professor of Preventive Medicine
Keck School of Medicine
University of Southern California

Peter B. Dervan
Bren Professor of Chemistry
California Institute of Technology
Member, National Academy of Sciences

cc:

Speaker of the House Nancy Pelosi
Representative Henry Waxman
Senator Dianne Feinstein
Senator Barbara Boxer