



Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis

By Marc J. Assael, Konstantinos E. Kakosimos

[Download now](#)

[Read Online](#) 

Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis

By Marc J. Assael, Konstantinos E. Kakosimos

Today's risk analysis is a very challenging field, and a solid understanding of the calculations procedure associated with it is essential for anyone involved. **Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis** provides an overview of the methods used to assess the risk of fires, explosions, and toxic gas dispersion, and then deduce the subsequent effects and consequences of these events.

The authors cover various aspects of such incidents, including the probability that an accident will occur, and how to calculate leaks, heat flux, overpressure, and the concentration of toxic clouds. The book follows by describing the consequences to people (injury or death) and material damages, and it concludes with a discussion of possible causes of destruction and common circumstances that can result in accidents.

Some key features of this book include:

- Introduction of basic techniques of hazard identification, emphasizing "what if" and HAZOP analyses
- Step-by-step procedures for the calculation of fires (i.e., pool fire, jet fire, fire ball), explosions (VCE, BLEVE), and concentration of toxic clouds (light and heavy gases)
- Methods for determining probability of injuries or lethality

Invaluable to professionals, researchers, and students whose work involves predicting the consequences of accidents, this book describes simple modern methods, which are a great aid for understanding the meaning of all the variables involved?in contrast to current complicated computer packages, which produce only results. Filling the existing gap in useful literature on risk analysis, this book follows a logical structure and presents straightforward, step-by-step calculation procedures and numerous examples that will be valuable in both teaching and learning the content.

 [Download](#) Fires, Explosions, and Toxic Gas Dispersions: Effe ...pdf

 [Read Online](#) Fires, Explosions, and Toxic Gas Dispersions: Ef ...pdf

Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis

By Marc J. Assael, Konstantinos E. Kakosimos

Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis By Marc J. Assael, Konstantinos E. Kakosimos

Today's risk analysis is a very challenging field, and a solid understanding of the calculations procedure associated with it is essential for anyone involved. **Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis** provides an overview of the methods used to assess the risk of fires, explosions, and toxic gas dispersion, and then deduce the subsequent effects and consequences of these events.

The authors cover various aspects of such incidents, including the probability that an accident will occur, and how to calculate leaks, heat flux, overpressure, and the concentration of toxic clouds. The book follows by describing the consequences to people (injury or death) and material damages, and it concludes with a discussion of possible causes of destruction and common circumstances that can result in accidents.

Some key features of this book include:

- Introduction of basic techniques of hazard identification, emphasizing "what if" and HAZOP analyses
- Step-by-step procedures for the calculation of fires (i.e., pool fire, jet fire, fire ball), explosions (VCE, BLEVE), and concentration of toxic clouds (light and heavy gases)
- Methods for determining probability of injuries or lethality

Invaluable to professionals, researchers, and students whose work involves predicting the consequences of accidents, this book describes simple modern methods, which are a great aid for understanding the meaning of all the variables involved?in contrast to current complicated computer packages, which produce only results. Filling the existing gap in useful literature on risk analysis, this book follows a logical structure and presents straightforward, step-by-step calculation procedures and numerous examples that will be valuable in both teaching and learning the content.

Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis By Marc J. Assael, Konstantinos E. Kakosimos **Bibliography**

- Sales Rank: #3276591 in Books
- Published on: 2010-02-23
- Original language: English
- Number of items: 1
- Dimensions: 10.00" h x .81" w x 7.01" l, 1.70 pounds
- Binding: Hardcover
- 349 pages

 [**Download** Fires, Explosions, and Toxic Gas Dispersions: Effe ...pdf](#)

 [**Read Online** Fires, Explosions, and Toxic Gas Dispersions: Ef ...pdf](#)

Editorial Review

About the Author

Marc J. Assael

Professor in Thermophysical Properties, BSc, ACGI, MSc, DIC, PhD, CEng, CSci, MIChE

Marc Assael received his PhD from Imperial College in 1980. In 1982 he was elected Lecturer in Heat Transfer in the Faculty of Chemical Engineering at the Aristotle University of Thessaloniki, where he founded the Laboratory of Thermophysical Properties & Environmental Processes. In 1986 he was elected Assistant Professor, in 1991 Associate Professor, and in 2001 Professor of Thermophysical Properties at the same Faculty. During the years 1991-1994 he served as the Vice-Chairman of the Faculty, during 1995-1997 as the Chairman of the Faculty, and from 2009-today, again as the Vice-Chairman of the Faculty of Chemical Engineering.

In 1998, Dr. Assael was TEPCO Chair Visiting Professor in Keio University, Tokyo, Japan, while during the years 2007-2010 he also holds the position of Adjunct Professor in Jiaotong University, Xi'an, China. He has published more than 230 papers in international journals and conference proceedings, 20 chapters in books and 7 books. He is acting as a referee for most journals in the area of thermophysical properties, while he is also a member of the Editorial Board of the scientific journals International Journal of Thermophysics, High Temperatures High Pressures (Pion, UK), and IChemE Transactions Part D: Education for Chemical Engineers (IChemE, UK)

He is a national delegate in many committees in the European Union, in the European Federation of Chemical Engineering as well as in many international scientific organizations.

Konstantinos Kakosimos

Dipl. Chem. Eng, Dr Chem. Eng.

Konstantinos Kakosimos received his Chemical Engineering Diploma in 2002 and his Ph.D. on the simulation of toxic gases dispersion from Aristotle University of Thessaloniki in 2009. Since 2000, he works as Researcher in the Laboratory of Thermophysical Properties and Environmental Processes. In the past, he served as member of various working groups and conferences organization committees. Since 2005 he is member of the education working group of the Panhellenic Association of Chemical Engineers (Section of Northern Greece) and since 2007 of the environment working group of the Technical Chamber of Greece (Department of Central Macedonia). In 2007 he was elected as a Member of the Board of the Panhellenic Association of Chemical Engineers (Department of Northern Greece), and from 2009-today again as the Vice-President of the Association. During the previous years, he has been involved on many private, national and European projects concerning environmental and hazard studies and training of engineers. His primary scientific fields are the development of numerical models and the training for the simulation of environmental processes, and risk analysis and effects calculation. He has published more than 15 papers in international peer-reviewed journals and acts as referee in many scientific journals.

Users Review

From reader reviews:

Joyce Adam:

Do you have favorite book? When you have, what is your favorite's book? Guide is very important thing for us to be aware of everything in the world. Each e-book has different aim or goal; it means that e-book has different type. Some people feel enjoy to spend their a chance to read a book. They can be reading whatever they acquire because their hobby is usually reading a book. What about the person who don't like studying a book? Sometime, person feel need book if they found difficult problem or maybe exercise. Well, probably you will want this Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis.

Ruby Carter:

In other case, little individuals like to read book Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis. You can choose the best book if you appreciate reading a book. As long as we know about how is important a book Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis. You can add knowledge and of course you can around the world by just a book. Absolutely right, mainly because from book you can know everything! From your country till foreign or abroad you can be known. About simple issue until wonderful thing you may know that. In this era, we could open a book or even searching by internet device. It is called e-book. You need to use it when you feel bored to go to the library. Let's go through.

Matthew Schwartz:

As people who live in the particular modest era should be up-date about what going on or information even knowledge to make these people keep up with the era which is always change and move forward. Some of you maybe will certainly update themselves by looking at books. It is a good choice in your case but the problems coming to anyone is you don't know which one you should start with. This Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis is our recommendation to cause you to keep up with the world. Why, because this book serves what you want and want in this era.

Tammara Dejesus:

Now a day people that Living in the era wherever everything reachable by match the internet and the resources included can be true or not call for people to be aware of each facts they get. How many people to be smart in getting any information nowadays? Of course the answer then is reading a book. Reading a book can help people out of this uncertainty Information particularly this Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis book because book offers you rich info and knowledge. Of course the info in this book hundred % guarantees there is no doubt in it as you know.

Download and Read Online Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis By Marc J. Assael, Konstantinos E. Kakosimos #KSBV96ITDLF

Read Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis By Marc J. Assael, Konstantinos E. Kakosimos for online ebook

Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis By Marc J. Assael, Konstantinos E. Kakosimos Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis By Marc J. Assael, Konstantinos E. Kakosimos books to read online.

Online Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis By Marc J. Assael, Konstantinos E. Kakosimos ebook PDF download

Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis By Marc J. Assael, Konstantinos E. Kakosimos Doc

Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis By Marc J. Assael, Konstantinos E. Kakosimos Mobipocket

Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis By Marc J. Assael, Konstantinos E. Kakosimos EPub

KSBV96ITDLF: Fires, Explosions, and Toxic Gas Dispersions: Effects Calculation and Risk Analysis By Marc J. Assael, Konstantinos E. Kakosimos