

美国药典在线点播课程 *USP On-Demand Webinar*

USP 通则<1469>亚硝胺杂质

USP <1469> Nitrosamine Impurities

课程时长 Course Duration: 5小时45分钟 5 hours 45 minutes

课程介绍 Course Description:

亚硝胺因具有较高致癌性，在药物中应予以严格控制。近年来几款含有亚硝胺杂质的产品因安全问题被召回，使之成为监管机构和业界关注的一个关键话题。为期一天的课程将对当前亚硝胺杂质的法规指南和美国药典通则<1469>“亚硝胺杂质”进行介绍。课程将介绍亚硝胺的来源，包括由其他杂质的存在而形成的亚硝胺、以及如何消除或降低亚硝胺的含量。还将对评估与控制原料药和制剂中亚硝胺的工具、以及 USP 通则<1469>的分析方法（包括标准物质的使用、操作过程中的注意事项等）进行介绍。此外，课程将讨论基于 ICH Q9 指南的风险评估方法、控制策略的开发，以及基于 ICH M7 指南的亚硝胺限值的计算、测试方法性能特征。

通过学习，您将能够：

- 描述 USP 通则<1469>“亚硝胺杂质”的背景、范围和方法，以及适用的法规指南；
- 解释亚硝胺形成的途径和来源，以及风险评估工具和高级工艺流程，以制定控制策略；
- 描述如何根据亚硝胺的测试方法性能特点选择合适的分析方法；
- 讨论在不同分析方法中 USP 标准物质的正确使用和处理；
- 确定影响方法灵敏度和选择性的因素；
- 总结 USP 通则<1469>中描述的四种测试方法的主要考虑因素、挑战和方法条件、以及样品和标准品的制备。

Nitrosamines should be strictly controlled in medicine due to high carcinogenicity. They are a critical topic for regulators and industry given the recent safety recalls of several products containing this impurity. This one-day course will provide attendees with an understanding of current regulatory guidelines and USP General Chapter <1469> Nitrosamine Impurities. The course will provide an overview of sources of nitrosamines including their formation from the presence of other impurities and how to eliminate or reduce levels of nitrosamines. Tools to assess and control nitrosamines in drug substances and drug products as well as in depth analytical procedures in USP <1469> including the use of the USP Reference Standard and precautions to be used during procedures will also be covered. The course will also address risk assessment methodology as per ICH Q9, control strategy development, calculation of nitrosamine limits as per ICH M7 as well as test method performance characteristics.

Upon completion of this course, you will be able to:

- Describe the background, scope and approach of USP <1469> Nitrosamine Impurities and applicable regulatory guidelines.
- Explain pathways and sources of nitrosamine formation along with risk assessment tools and a high-level process flow to develop control strategies.
- Describe how to select the appropriate analytical procedures based on test method performance characteristics for nitrosamine methods
- Discuss the proper use and handling of the USP reference standard in the respective analytical procedures.
- Identify factors which impact sensitivity and selectivity of methods.
- Summarize key considerations, challenges and method conditions along with sample and standard preparation of the four test methods described in USP <1469>

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USP 通则<1469>亚硝酸胺杂质 USP <1469> Nitrosamine Impurities

参课对象 Who Should Attend:

制药企业研发分析人员，制剂和原料药QC经理/技术人员，授权药品放行的QA人员，法规事务人员，辅料生产商等。

Analytical R&D scientists, QC managers, QC scientists (DS, DP), QA staff who authorize drug product release, Regulators affairs staff, Excipient manufacturers, etc.

授课语言 Language:

英语（带中文字幕） English (with Chinese subtitles)

讲师介绍 Instructor:

Edmond Biba 博士，USP科学部门通则资深科学家

Edmond Biba, Ph.D., Principal Scientist, Science-General Chapters, USP

Mrunal A. Jaywant 博士，USP-印度 科学部门研发高级总监

Mrunal A. Jaywant, Ph.D., Senior Director R&D, India-Science, USP

Marcus Obeng 博士，USP标准物质实验室资深科学家II

Marcus Obeng, Ph.D., Senior Scientist II, Reference Standards Lab, USP

Amanda Guiraldelli 博士，前USP科学事务经理

Amanda Guiraldelli, Ph.D., Former Scientific Affairs Manager, USP

Mark Han，USP标准物质实验室资深科学家II

Mark Han, Senior Scientist II, Reference Standards Lab, USP

课程有效期 Access Deadline:

课程在线观看有效期：自在线报名并缴费成功日起，14天内有效，逾期课程访问通道将自动关闭。

（报名成功后您会收到课程登录信息通知邮件）

This course will be only available to you for 14 days from the day of successful registration or until you mark it 'Complete' in your transcript– whichever occurs first.

培训费用 Fee: 1500 元人民币/人 RMB 1500/attendee

报名方式 Register Procedures:

1. 点击[这里](#)（[课程报名](#)）进行在线报名。

USP-China 收款账户: USP-China account

收款人 Beneficiary: 美药典标准研发技术服务（上海）有限公司

账号 Account No.: 6841 12464 120

银行 Bank: 美国银行有限公司上海分行

2. 发票领取：快递/邮寄方式提供 Invoice is available by express after successful registration.