

ICS 13.020
CCS Z 10

HJ

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

HJ/T 415-2008

**Guide of Safety. Assessment on Application of Microbial Blends
in the Environmental Protection**

环保用微生物菌剂环境安全评价导则

(English Translation)

Issued on: January 4, 2008

Implemented on: May 1, 2008

Issued by: Ministry of Ecology and Environment

Table of Contents

Preface
1 Scope
2 Normative references
3 Terms and definitions
4 1 General
5 Stars Content
6 Evaluation report
7 Standard Example
HJ/T 415

Foreword

To implement the "People's Republic of China Environmental Protection Law" and "the State Council on Strengthening the biological species resources protection and management through Knowing "(Guo Ban Fa [2004] No. 25), the promotion of environmental protection with security applications microbial agents, to protect human health, protecting the environment, regulation Fan with environmental microbial agents safety evaluation work environment, the development of this standard.

This standard specifies the environmental microbial agents safety evaluation of environmental and technical requirements.

This standard is based on the technical content of ecological environment protection law microbial agents of biological and environmental applications have been made.

This standard is the first release.

This standard is a guiding standard.

This standard was proposed by the State Environmental Protection Administration of Science, Technology.

This standard was drafted. Shanghai Environmental Monitoring Center.

This standard SEPA January 4, 2008 for approval.

This standard since May 1, 2008 implementation.

This standard is interpreted by the State Environmental Protection Administration.

HJ/T 415 2008

Environmental agents Environmental Microbial Safety Evaluation Guide

1 Scope

This standard specifies the environmental protection with environmental microbial agents safety evaluation of the technical requirements.

This standard applies to environmental protection and pollution prevention and environmental safety for purposes of evaluation of microbial agents.

This standard does not apply genetic modification and microbial agents used in laboratory research.

2 Normative references

The standard content of the following documents cited in the articles.

"Pathogenic microbiology laboratory bio-safety regulations" (State Council Decree No. 424 of 2004) "Human infection pathogens List" (People's Republic of China Ministry of Health Decree No. 45 of 2006) "Animal pathogens Category List" (People's Republic of China Ministry of Agriculture Order No. 53 of 2005)

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 Environmental Microbial agents

It refers to one or more separation and purification from nature, through natural or artificial breeding (without genetic modification) obtained by microbial strains (Strain) composed of applied environmental protection and pollution prevention of microbial agents.

3.2 Gene engineered microbial agents

It means by modern biotechnology (such as. cell fusion, DNA recombination, etc.) by transforming the original genetic structure and function Microbial agents.

3.3 LABORATORY

Manual control means in the Experimental System.

3.4 Structures

Physical barriers or physical means for limiting microbial agents, and to reduce the human and animal health and ecological potential safety hazards, Chemistry, Biology Integrated learning barrier structure.

3.5 Open environment applications

It refers to the application in a natural environment under controlled conditions in the non-human.

3.6 Ecologically sensitive area

It refers to a region of the most intense changes in the ecological environment and ecological problems of the most vulnerable areas, but also sustainable development and the regional ecosystem the key areas of ecological environment comprehensive improvement, including. National Nature Reserve, mountain forests, water sources, large reservoirs, coastal with the natural landscape tourist spots. Ecologically sensitive areas of the region as a whole ecological environment play a decisive role in the event of vandalism will be difficult to have Restorer.

4.1 Evaluation Objective

Analysis and evaluation of environmental microbial agents and use, harmful effects on human and animal health and ecological safety and potential risks;

Develop scientific, effective and feasible prevention, emergency response, mitigation or elimination of measures to promote environmentally safe application of microbial agents.

4.2 Evaluation Principles

HJ/T 415 2008

4.2.1

Environmental Safety evaluation Microbial Community environments should adhere to the principle of correspondence. The purpose of the evaluation, the content and requirements shall be ring Paul corresponds with microbial agents of environmental safety management purpose, content and requirements.

4.2.2

Environmental Safety evaluation of environmental microbial agents should follow the principle of comprehensiveness. The evaluation should involve the use of various microbial agents Links and information about them.

4.2.3

Environmental Safety evaluation Microbial Community environments should adhere to the principle of forward-looking. It should be based on the characteristics of microorganisms, application classes Type, the existing level of evaluation and control of the level of environmental protection with microbial agents and their use may human and animal health and for the environment the potential impact of the risk assessment, and uncertainty

described and analyzed in order to facilitate new technologies and data appears, Supplement the evaluation.

4.3 Evaluation Key

Environmental protection with environmental safety assessment of microbial agents should use the following aspects as environmental safety assessment focus.

4.3.1

microbial agents contained in each species (strain) of biological characteristics and pathogenicity.

4.3.2

microbial strains for resistance to commonly used antibiotics resistance (or resistance).

4.3.3

and potential harmful effects of microbial agents and their use in various types of metabolites in human and animal health and possible ecological safety harm.

4.3.4

Use of microbial agents in all sectors of scientific, effective and feasible prevention, emergency response, mitigation or elimination measures.

4.4 Evaluation Program

Environmental microbial agents with environmental safety assessment procedures include. environmental risk identification, evaluation content and focus to identify, evaluate TECHNOLOGY Surgery route planner, special testing reporting, environmental safety assessment, emergency plans for the development, evaluation report writing and so on.

4.4.1 Environmental Risk Identification

Movies should be analyzed and harmful microbial agents and evaluation process of using various types of metabolites in human and animal health and the ecological environment possible Impact and potential hazards, including pathogenicity and toxicity impacts.

4.4.2 Evaluation of content and priority setting

Risk identification should be based on the results to determine the environmental microbial agents safety evaluation of content and focus.

4.4.3 Technical Evaluation route planner

Should be based on safety evaluation of content and focus, select and determine the microbial agent environmental safety assessment strategies and techniques based on road