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

GB/T 46432-2025

**Photography - Processing chemicals - Specifications for
1-phenyl-3-pyrazolidinone**

摄影 加工用化学品 1-苯基-3-吡唑烷酮规范

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is modified to adopt ISO 3299:1994 "Specification for 1-phenyl-3-pyrazolone chemical products for photographic processing".

This document has undergone the following structural adjustments compared to ISO 3299:1994.

---A new Chapter 3, "Terminology and Definitions," has been added;

---Chapter 4 of ISO 3299:1994 has been deleted.

The technical differences between this document and ISO 3299:1994, and the reasons therefor, are as follows.

---The scope of application has been expanded (see Chapter 1) to comply with the regulations for drafting Chinese standards;

---The "Technical Requirements" section (see Chapter 4 of ISO 3299:1994) has been deleted because it overlaps with the requirements in Chapter 8;

---Instruments have been added (see 7.1.3.3) to enhance operability and standardization;

---The content testing sample weighing precision has been changed (see 7.1.4) from "0.001g" to "0.0001g" to reduce errors and improve the accuracy of result calculation.

Accuracy;

---The infrared spectral testing range (see 7.2.2) has been changed from "2 μ m ~ 16 μ m" to "2.5 μ m ~ 16 μ m" to better suit my country's national conditions.

The technical conditions are convenient for operation;

---Added "The residue on ignition shall be treated in accordance with 7.1 of GB/T 20432.5-2007" (see 7.3.2) to improve operability;

---ISO 10349-5 (see 7.4.2, 7.5.2) has been replaced with the normatively referenced GB/T 20432.5-2007 to adapt to my country's national standards.

National conditions;

---ISO 10349-8 (see 7.6.2) has been replaced with the normatively referenced GB/T 20432.8-2007 to adapt to my country's national conditions;

---The initial sample weighing accuracy for volatile substance testing has been changed (see 7.6.2) from "0.1g" to "0.0001g", consistent with the accuracy after drying.

Maintaining consistent weighing precision improves the accuracy of result calculations;

---The weighing precision for test samples of substances insoluble in chloroform has been changed (see 7.8.4) from "0.1g" to "0.0001g", improving accuracy.

The accuracy of the calculation results.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Petroleum and Chemical Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Photosensitive Materials (SAC/TC102).

Introduction

This document is one of a series of purity standards established for chemicals used in the processing of photographic materials. The general testing methods referenced in this document...

The laws and procedures are compiled in Chapters 1, 4, 5 and 8 of ISO 10349.

This document is intended for personnel with analytical technical work knowledge and can also be used as a reference for other personnel. Some steps use [specific techniques/methods].

Corrosive, toxic, or other hazardous chemicals. Laboratory safety procedures for handling chemicals require the use of safety glasses or goggles.

Rubber gloves and other protective equipment such as face shields or aprons. Proper precautions must always be taken when performing any laboratory procedures, even...

Warnings regarding hazardous substances have been issued, and cautionary procedures have been followed. Hazard warnings are indicated by letters enclosed in angle brackets , with detailed instructions for handling the situation.

This is used as a reminder in the procedures and is defined in ISO 10349-1. Detailed information on the hazards, handling, and use of these chemicals is available from [the manufacturer's website/source].

Obtained from the manufacturer.

This document provides chemical and physical requirements for the suitability of photographic-grade chemicals. These tests are related to poor photographic results.

For optimal photographic results, purity requirements should be set as low as possible. These standards are considered to ensure the purity used in image processing solutions.

The minimum required purity level, but if a chemical substance's common grade of purity exceeds the photographic processing requirements, and it is not properly processed before use...

The drawback in terms of economics lies in the fact that, based on the availability of materials, the purity requirement can be set to the commonly used high purity level. Furthermore, maximum effort is still needed.

Keep the required quantities to a minimum. Limit inert impurities to a level that does not excessively reduce the measured values. All tests are conducted at the "receive" level.

The suitability of a chemical is assessed on samples taken during use to reflect the condition of the material. While the ultimate criterion for chemical suitability is its success in use testing...

While the results may vary, the shorter and more economical testing methods described in this document are generally sufficient.

In any case, all satisfactory methods include testing procedures. Effective testing requirements not only guarantee chemical purity, but also...

As a valuable supplement to identification testing, it should be listed whenever there is a possibility that another chemical or mixture of chemicals will pass other tests.

The properties of the substance are tested for identification.

All requirements listed in Chapter 5 are mandatory, but the physical appearance of materials and items with footnotes are for reference only and are not requirements.

Part of it.

Use testing methods that can be performed in any laboratory equipped with standard equipment whenever possible, and avoid those requiring highly specialized equipment.

Or the testing method of the technology. Instrumental analysis methods are only specified as alternative methods or used alone when no other satisfactory method is available.

Over the past few years, instruments used for various analyses have seen significant improvements. If these techniques offer the same or higher accuracy, then...

These alternatives can be used to replace the test methods described in this document. Users are responsible for associating these alternatives with the methods given in this document.

In case of discrepancies, the method described in this document shall prevail. However, if a "pass test" is required, alternative methods should not be used.

Photographic processing chemicals 1-Phenyl-3-pyrazolone specification

1 Scope

This document specifies the purity requirements for photographic grade 1-phenyl-3-pyrazolidineone (phenidone) and describes the test methods for purity determination.

This document applies to the determination of 1-phenyl-3-pyrazolidineone, a chemical used in photographic processing.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this