

ICS 13.340.20
CCS C 73



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

GB/T 30042-2013

**Personal protective equipment -- Eye and face protection --
Vocabulary**

个体防护装备 眼面部防护 名词术语

(English Translation)

Issued on: January 1, 1970

Implemented on: January 1, 1970

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafting method to modify and adopt ISO 4007.:2012 "Personal protective equipment terminology of face and face protection" (English version).

The technical differences between this standard and ISO 4007.:2012 are.

--- The size of the head model applicable to this standard refers to "GB/T 2428" Adult Head and Face Size "".

The relationship between national standards and international standards involved in this standard is.

--- GB/T 20000.4-2003 Standardization Guide Part 4. Safety-related content in the standard (ISO/IEC Guide 51.:1999, MOD)

--- GB/T 26397-2011 Ophthalmic optics terminology (ISO 13666.:1998, MOD)

--- GB/T 2035-2008 Plastic terms and definitions (ISO 472.:1999, IDT)

--- GB 13511.1-2011 Compatible glasses Part 1. Single light and multifocal (ISO 21987.:2009, MOD) this standard was proposed by the State Administration of Work Safety.

This standard is under the jurisdiction of the National Technical Committee for Standardization of Personal Protective Equipment Eye and Face Protection Sub-Committee (SAC/TC112/SC1)

1 Scope

This standard defines and explains the main terminology of individual eye and face protection.

This standard applies to sunglasses, occupational eye and face protection, sports eye and face protection, and other relevant fields of individual eye and face protection.

Note: At the time of publication of this standard, the terms cited were equivalent to ISO 8624.:2010, ISO 13666.:2010, CIE17.4. 1987 and ISO/IEC guidelines 51.:1991 terminology. If, due to future revisions to the above standards, ISO 4007, ISO 8624, ISO 13666, CIE 17.4 or There will be inconsistencies between the ISO/IEC Guide 51, when the latest version of ISO 8624, ISO 13666, CIE 17.4 or the definitions that appear in ISO/IEC Guide 51 will be considered authoritative.

2 Terms related to hazards

Safety

Exempt from unacceptable risk (2.4) status.

Note: "Safety" and "Safety" cannot be used to describe other useful information when used as a narration. In addition, they may be solved Read as a promise to avoid danger. If possible, it is recommended to replace the words "security" and "safety" with a method that clarifies the purpose.

Example. Use "protective helmet" instead of "safety helmet".

Harm

Damage to substances, or damage to human health, property or the environment.

Hazard

Potential root cause of injury (2.2).

Note: The term "danger (source)" can be classified according to the source of the injury or the predictable nature of the injury (such as electric shock hazard, crushing hazard, cutting hazard, poisoning hazard) Danger, fire hazard, drowning hazard, etc.).

Risk

A comprehensive measure of injury (2.2), including the probability of injury and the severity of injury.

Reasonably foreseeable misuse the use of products, processes or services is not in accordance with the provisions of the supplier, but this result is caused by human activities that are easily foreseen.

3.1 Terms related to optical radiation

3.1.1

Optical radiation

Electromagnetic radiation with a wavelength between X-rays ($\lambda \sim 1\text{nm}$) and radio waves ($\lambda \sim 1\text{mm}$).

Note: It is usually subdivided into the following spectral ranges, which may overlap in the ultraviolet long wave and visible region.

--- Ultraviolet radiation (UV) 1nm to 380nm or 400nm;

--- Visible radiation (VIS) 380nm to 780nm;

--- Infrared radiation (IR) 780nm to 1mm.

3.1.2

Ultraviolet radiation UV radiation Radiation with a shorter wavelength than visible radiation.

Note 1: For radiation between 100nm and 400nm, it is usually divided into.

--- UV-A (long wave ultraviolet) 315nm to 400nm;

--- UV-B (medium wave ultraviolet) 280nm to 315nm;

--- UV-C (short-wave ultraviolet) 100nm to 280nm.

Note 2: There is no precise boundary between "ultraviolet" and "visible", because when the wavelength is less than 400nm, a bright light source with a shorter wavelength can be visualized Perceptual.

Note 3: For commonly used sunglasses, the UV-A wavelength is limited to 380nm.

Note 4: The upper limit of 380nm is the same as the value in ophthalmic optics and ISO 20473.:2007 optical and photonic spectral bands. It should be noted that many medical, health Health and safety guidelines and standards require consideration of UV-A exposure to UV-A up to 400nm, such as Note 1.

Note 5: Short-wave ultraviolet (UV-C) is defined as.

--- Far Ultraviolet (FUV) 190nm to 280nm;

-Out of vacuum (VUV) 100nm to 190nm (see ISO 20473.:2007).

Note 6: For eye protection, only the long-wavelength portion of short-wave ultraviolet radiation, namely 190nm to 280nm is more important. Not included in solar radiation in part, it only appears in the few artificial radiation sources.

Note 7: Sometimes ultraviolet radiation may be considered to extend the wavelength of 1nm downward (see ISO 20473). The area from 1nm to 100nm is called extreme ultraviolet, which is only suitable for in vacuum, it is not suitable for the protection of eyes and face.

3.1.3

Visible radiation

Light

Any optical radiation (3.1.1) that can directly produce a visual perception.

Note 1: There is no accurate spectral interval for visible radiation, because it depends on the radiation power reaching the retina and the sensitivity of the observer. Usually lower limit Between 360nm and 400nm, the upper limit is between 760nm and 830nm.

Note 2: Based on their respective understandings, CIE gives different definitions of light. For eye and face protection devices, light can be considered synonymous with visible radiation.

Note 3: The wavelength range is selected from 380nm to 780nm.

3.1.4

Infrared radiation

IR radiation

Optical radiation with a wavelength greater than visible radiation (3.1.1), from 700nm to