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

GB/T 47428-2026

**Fire emergency rescue equipment - General specification for
decontamination equipment**

消防应急救援装备 洗消装备通用技术条件

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5.1 Safety Requirements

5.1.1 Explosion-proof requirements Decontamination equipment used in hazardous areas should be explosion-proof.

5.1.2 Protection Requirements Decontamination equipment used with liquid

decontamination agents or in open-air operations should meet the IP65 protection level specified in GB/T 4208-2017.

5.2 Single-person decontamination tent

5.2.1 Appearance The appearance of a single-person decontamination tent should meet the following requirements.

- a) The outer surface is flat and smooth, without wrinkles, scratches or other appearance defects;
- b) The seams should be uniform, flat, and firm, without defects such as loose threads or detached adhesive;
- c) Metal parts should be free from mechanical damage, cracks, burrs, and other defects; parts with external threads should be protected.
- d) All valves, switches, and operating handles are equipped with function labels;
- e) The outer surface is designed with reflective markings that are visible from all 360° directions;
- f) The color is yellow;
- g) There are clear signs at the entrances and exits.

5.2.2 Structure The structure of a single-person decontamination tent should meet the following requirements.

- a) Consists of a tent, mat, inflation and deflation system, water supply system, sewage discharge system, wastewater and waste collection system, decontamination sprayer, and decontamination solution. Composed of homogenizing tanks, etc.;
- b) The inlet and outlet water interfaces shall comply with the requirements of GB 12514.1, and the suction pipeline shall have anti-vacuum capability; there shall be a design to prevent sewage backflow;
- c) The air column is equipped with an interface for measuring pressure and a pressure display device; the pressure gauge has an accuracy of
- d) The air column is equipped with an inflation valve and an deflation valve;
- e) A safety valve is installed on the air column;

5.4 Simple Decontamination Spray Device

5.4.1 Appearance The appearance of a simple decontamination spray device should meet the following requirements.

- a) All metal parts have smooth surfaces, free from bubbles, pinholes, obvious mechanical

damage, unevenness, and other defects;

- b) The surface of the hose is clean, smooth, and flat, without wrinkles or other defects;
- c) The surfaces of hose connectors and nozzles are smooth and free of burrs or other defects.

5.4.2 Structure and Materials

5.4.2.1 Structure The structure of a simple decontamination spray device should meet the following requirements.

- a) It shall be equipped with no fewer than 3 hoses, and each hose shall be equipped with no fewer than 4 spray heads;
- b) The inlet connection interface conforms to the requirements of GB 12514.1.

5.4.2.2 Materials Components that come into contact with the decontamination solution should be made of corrosion-resistant materials or treated with anti-corrosion measures.

5.4.3 Basic Parameters The basic parameters of a simple decontamination sprayer should meet the following requirements.

- a) The base area of the simple decontamination sprayer should be large enough for one person to stand on, and should not exceed 1m^2 , and the height should not be less than 2.2m;
- b) The rated working pressure shall not be less than 0.2 MPa and not greater than 0.4 MPa;
- c) The flow rate of a single nozzle at its rated operating pressure should not be less than 5 L/min;
- d) The overall weight should not exceed 30 kg.

5.4.4 Sealing performance There should be no leakage after the sealing performance test.

5.4.5 Pressure Resistance The pressure resistance test should not show any leakage, damage or slippage.

5.4.6 Stability performance After stability testing, there should be no tilting or tipping.

5.5 Strong acid and strong alkali decontamination equipment

5.5.1 Appearance The appearance of strong acid and strong alkali decontamination devices should meet the following requirements.

- a) The overall appearance should be smooth and free from defects such as rust, paint

peeling, and dents. The surfaces of parts should be free from defects such as burrs and cracks.

b) Metal parts are made of corrosion-resistant materials and are free from defects such as bubbles, pinholes, obvious mechanical damage, and unevenness;

c) The stamped parts are intact, free from cracks, sharp protrusions, and other defects not required by the design;

d) The weld seams of the welded parts are uniform, free from defects such as cracks, burn-through, and undercut;

e) The plating layer on the plated parts has a uniform color, strong adhesion, and a smooth surface, free from defects such as peeling, bubbles, and scratches;

f) Plastic and rubber parts have smooth surfaces and are free from defects such as cracks and shrinkage cavities.

5.5.2 Structure The structure should include a tank, nozzle, spray nozzle, pressure indicator, and switching device.

5.5.3 Materials Components that come into contact with the decontamination solution should be made of acid- and alkali-resistant, corrosion-resistant materials or treated with anti-corrosion measures.

5.5.4 Sealing performance There should be no leakage after the specified sealing performance test.

5.5.5 Pressure Resistance After pressure resistance testing, the pressure drop rate should not exceed 10%, and there should be no leakage or damage.

5.6 Biochemical decontamination device

5.6.1 Appearance The appearance of the biochemical decontamination device shall meet the following requirements.

a) The overall appearance should be smooth and free from defects such as rust, paint peeling, and dents. The surfaces of parts should be free from defects such as burrs and cracks.

b) The stamped parts should be intact and free from defects such as cracks or sharp protrusions that are not required by the design;

c) The weld seams of the welded parts should be smooth, free from burn-through, cracks, and incomplete welding; the weld seams should be uniform and free of weld slag.

d) The plastic parts have smooth surfaces, free from defects such as cracks and shrinkage cavities;