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

GB/T 15692.1-1995

**Pharmaceutical machinery - Terms
(English Translation)**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting:

This document replaces GB/T 15692-2008 "Pharmaceutical Machinery Terminology": Compared with GB/T 15692-2008, except for the structural adjustment and compilation in addition to logical changes, the main technical changes are as follows:

--- Deleted the new product design confirmation, design confirmation, verification, installation confirmation, operation confirmation, performance confirmation, and standards for pharmaceutical machinery (equipment) 7 terms in operating procedures (see 2.2 to 2:8 of the:2008 edition);

---Deleted in-situ detection, fully automatic machine, semi-automatic machine, multi-function machine, integrated machine, linkage line, medicine, pharmaceutical excipients, lump materials, medicine 12 terms for packaging, pharmaceutical packaging, and filling (see 2.11 to 2:22 of the:2008 edition);

--- Deleted the five terms of sealing, bundling, printing, processing and mothering (see 2.25

to 2:29 of the:2008 edition);

--- Fluidized bed reactors, tower reactors, membrane reactors, tubular reactors, microtubular reactors, microchannel reactors and cell 7 terms for culture bioreactors (see 4.1:5 to 4:1:11);

--- Added three terms: bottle transfer machine, oscillator, and fermenter (see 4.1:12:2 to 4:1:12:4);

--- Deleted mechanical self-priming fermentation tank (see 3.1:5:4 of the:2008 edition);

--- Added fermentation system (see 4.1:12:5);

--- Deleted the terms immobilized cell fluidized bed fermenter and culture tank (see 3.1:5:11 and 3:1:5:12 of the:2008 edition);

--- Added two terms: packed tower and alcohol recovery tower (see 4.2:6, 4:2:7);

--- Deleted the terms random packed tower and structured packed tower (see 3.2:5 and 3:2:6 of the:2008 edition);

--- The internal circulation crystallizer has been changed (see 4.3:1:5, 3:3:1:4 of the:2008 edition);

--- Added centrifuge (see 4.4:1);

--- Deleted three-column centrifuge, upper unloading three-column centrifuge, lower automatic unloading three-column centrifuge, direct-connected three-column centrifuge 4 terms for machine (see:2008 edition, 3:4:1:1, 3:4:1:1:1~3:4:1:1:3);

--- Added centrifugal screening machine (see 4.4:1:1:4);

--- Changed the horizontal piston pusher centrifuge (see 4.4:1:1:5, 3:4:1:5 of the:2008 edition);

--- Added horizontal spiral unloading concentrating filter centrifuge (see 4.4:1:1:10);

--- Added magnetic suspension centrifuge (see 4.4:1:1:13);

--- Deleted three-column sedimentation centrifuge (see 3.4:2:1 of the:2008 edition);

--- Deleted refrigerated centrifuge (see 3.4:2:6 of the:2008 edition);

--- Deleted centrifugal separation machinery and equipment, manual slag butterfly separator, nozzle slag butterfly separator, ring valve slag butterfly separator Machine (see 3.4:3, 3:4:3:2~3:4:3:4 of the:2008 edition);

--- Added the term filter-washer-dryer (three-in-one) machine (see 4.4:2:3:1);

--- Deleted horizontal open flow plate and frame filter press, horizontal undercurrent plate and frame filter press, vertical undercurrent plate and frame filter press (see:2008 edition

3:4:4:3:2~3:4:4:3:4);

--- Added adsorption extrusion solid-liquid separator (see 4.4:2:3:4);

--- Deleted the three terms of rotary drum vacuum filter, rotary drum pressure filter and adsorption type rotary drum filter (see the:2008 edition 3:4:4:4:1~3:4:4:4:3);

---Added chromatography separation system, chromatography column, disposable chromatography system, liquid chromatography system, supercritical fluid chromatography system, continuous chromatography Spectral system, crystal filter 7 terms (see 4.4:2:7, 4:4:2:7:1~4:4:2:7:5, 4:4:2:8);

--- Deleted microporous membrane filter, ultrafine filter, nano filter, cartridge filter, vacuum cartridge filter, pressurized cartridge filter Element filter, vacuum cartridge filter, pressurized cartridge filter, other separation equipment, bag filter, sintered tube Dust collector, wire mesh dust collector 12 terms (see 3:4:4:6:1~3:4:4:6:3, 3:4:4:7, 3:4:4:7:1~3:4:4:6:3 ::

3:4:4:7:4, 3:4:5, 3:4:5:4~3:4:5:6);

--- Added 6 terms: vibrating screen, ultrasonic vibrating screen, circular vibrating screen, swing screen, rotary screen, horizontal air flow screen (see 4.4:3:1, 4:4:3:1:1, 4:4:3:1:2, 4:4:3:2, 4:4:3:4, 4:4:3:5);

--- Deleted the crushing vibrating screen (see 3.4:6:1 of the:2008 edition);

--- Added two terms: rotating distillation bed and detoxification system (see 4.4:9~4:4:10);

---Added static extraction tank, multifunctional extraction tank, basket extraction tank, continuous dynamic extraction tank, continuous countercurrent extraction unit, multi-stage countercurrent extraction unit, Reflux extraction unit, external circulation extractor, reflux extraction concentration unit, ultrasonic extraction concentration unit, as well as microwave and supercritical extraction 10 terms (see 4.6:1, 4:6:1:1, 4:6:1:2, 4:6:2:1 to 4:6:2:3, 4:6:2:5, 4:6:5, 4:6:6, 4:6:7);

--- Deleted the circulating fluidized bed adsorption device (see 3.5:4:2 of the:2008 edition);

--- Changed the shell and tube evaporator (see 4.7:1:1:2, 3:7:1:2 of the:2008 edition);

--- Added rotary tube evaporator (concentrator) (see 4.7:1:3:4);

--- Deleted heat pump evaporator (see 3.7:10 of the:2008 edition);

---Added thermal vapor recompression evaporator, mechanical vapor recompression evaporator, MVR falling film evaporator, MVR forced circulation evaporator 4 terms for transmitters (see 4.7:1:10, 4:7:1:11, 4:7:1:11:1, 4:7:1:11:2);

---Added double-effect external circulation concentrator, single-effect concentrator, double-effect concentrator, multi-effect concentrator, hot reflux concentrator, ultra-low temperature concentrator 7 terms for membrane concentrator and membrane concentrator