



概 述

■微囊技术是一种利用天然的或合成的高分子成膜材料(囊材)把液体或固体药物(囊心物)包嵌形成直径1~5000 μ m(通常为5~250 μ m)微小胶囊的技术,微囊技术可广泛用于医药、食品、农药、饲料、化妆品、染料、黏合剂、复写纸等领域。制备微囊的过程称为微型包裹术,简称微囊化。药物微囊化后具有许多优越性:

- 1. 能减少复方制剂中药物之间的配伍禁忌,隔绝药物组分间的反应。
- 2. 遮蔽药物的苦味或异味。
- 3. 控制药物的释放。
- 4. 降低药物的毒性。
- 5. 用微囊制备的药物制剂具有以下优越性:
 - ▲(1) 控释或缓释药物。用微囊配制散剂,流动性好,剂量比较准确。可改善药物的易吸湿引湿性,粉末不易结块。
 - ▲(2) 用微囊灌注空心胶囊,流动性好,装量准确。
 - ▲(3) 可直接用微囊压制片剂,可压性良好。制得的颗粒流动性好,填入冲模的量准确,片重差异较小;也可以减小压片时粉末飞扬。
- 6. 保护药物,如易氧化、对水气敏感等药物;使液态或挥发性药物成为稳定的粉末。
- 7. 更利于药物的贮存。
- 8. 可将活细胞或生物活性物质包裹。

General Descriptions

■ Micro-capsule technology is the one which makes use of natural or synthetic film forming material (capsule material) to pack liquid or solid medicine (core materials) forming microcapsule with diameter 1~5000um (it is usually 5~250um), microcapsule technology can be widely used in such areas as medicine, food, farm chemical, forage, cosmetics, dyeing agent, bond and carbon paper etc. The process of preparing microcapsule is called micro-encapsulation technology, microencapsulation for short. The medicine has much superiority after microencapsulation:

- 1. It can reduce incompatibility between medicine of compound and isolate the reaction between medicine composition.
- 2. Shield bitterness or abnormal taste of medicine.
- 3. Control the release of medicine.
- 4. Reduce the toxicity of medicine.
- 5. The pharmaceutical preparation prepared by microcapsule has the following superiority:
 - ▲(1) Control or release medicine. Prepare pulvis by microcapsule, the liquidity is well and dosage is much accurate. It can improve hygroscopic property and moisture absorbance property of the medicine, the powder is not easy for agglomeration.
 - ▲(2) Suppress the tablet with microcapsule perfusion, it is featured with well pressure resistance. The prepared grain has good liquidity, the dosage filled in the die is accurate and slice heavy difference is much smaller; it can also reduce powder flying during tablet forming.
- 6. Protect medicine, such as the medicine which is oxidizable or sensitive for vapor; make liquid or volatile medicine become steady powder.
- 7. It is more convenient for storage of medicine.
- 8. It can pack viable cell or bioactive substances.