



# Closed Loop Extractor

/ Laboratory and Processing Equipment



**LAB1ST** / Laboratory and Processing Equipment

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# Closed Loop Extractor



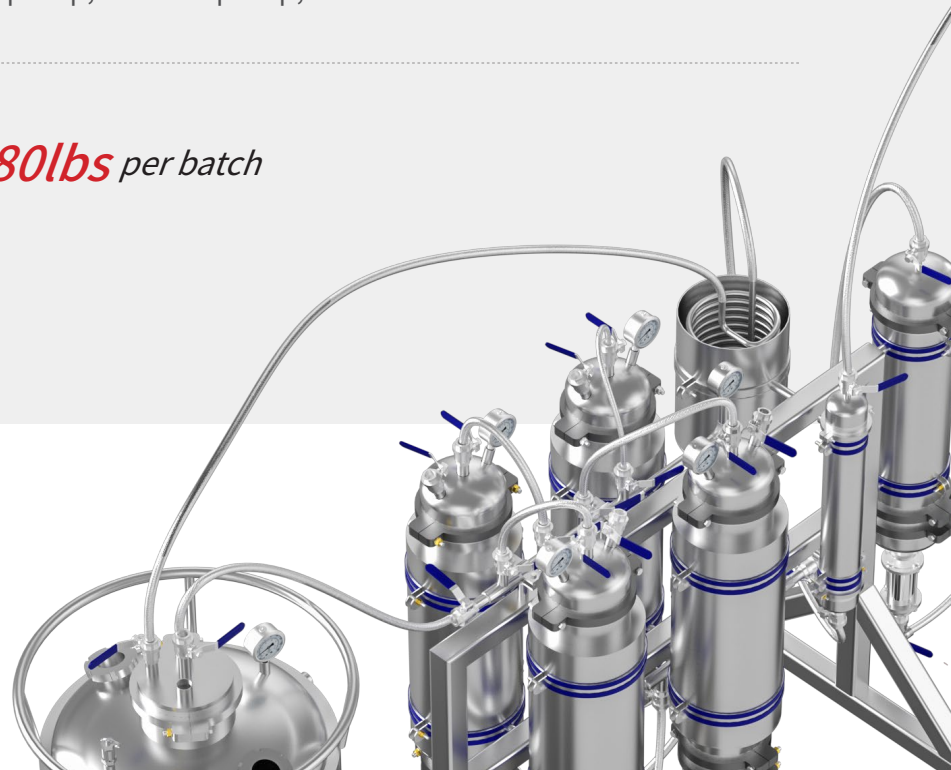
Closed-loop hydrocarbon extractor is one of the most popular cannabis extraction equipment in the market. It's usually use hydrocarbons like butane, propane as a solvent to extract cannabinoids, which also can preserve temperature-sensitive terpenes from the concentrate due to the solvent's low boiling point. As the solvent passes over or "wash" the plant, it carries chemical compounds like terpenes, cannabinoids, lipids, and more from the plant. Moreover, with closed-loop structure, the flammable and combustible solvent gas will not release into the atmosphere, safe to operate.

Lab1st BHO extractor can run at low pressure, around 150 PSI (max. 200 PSI), with the capacity from 5lbs to 80lbs. It's a very efficient and safe machine that can process material faster than CO2 extractors and at a fraction of the cost. We also provide extractors with ASME, GMP and other certification, so that you can have a different choice when getting economic benefits.

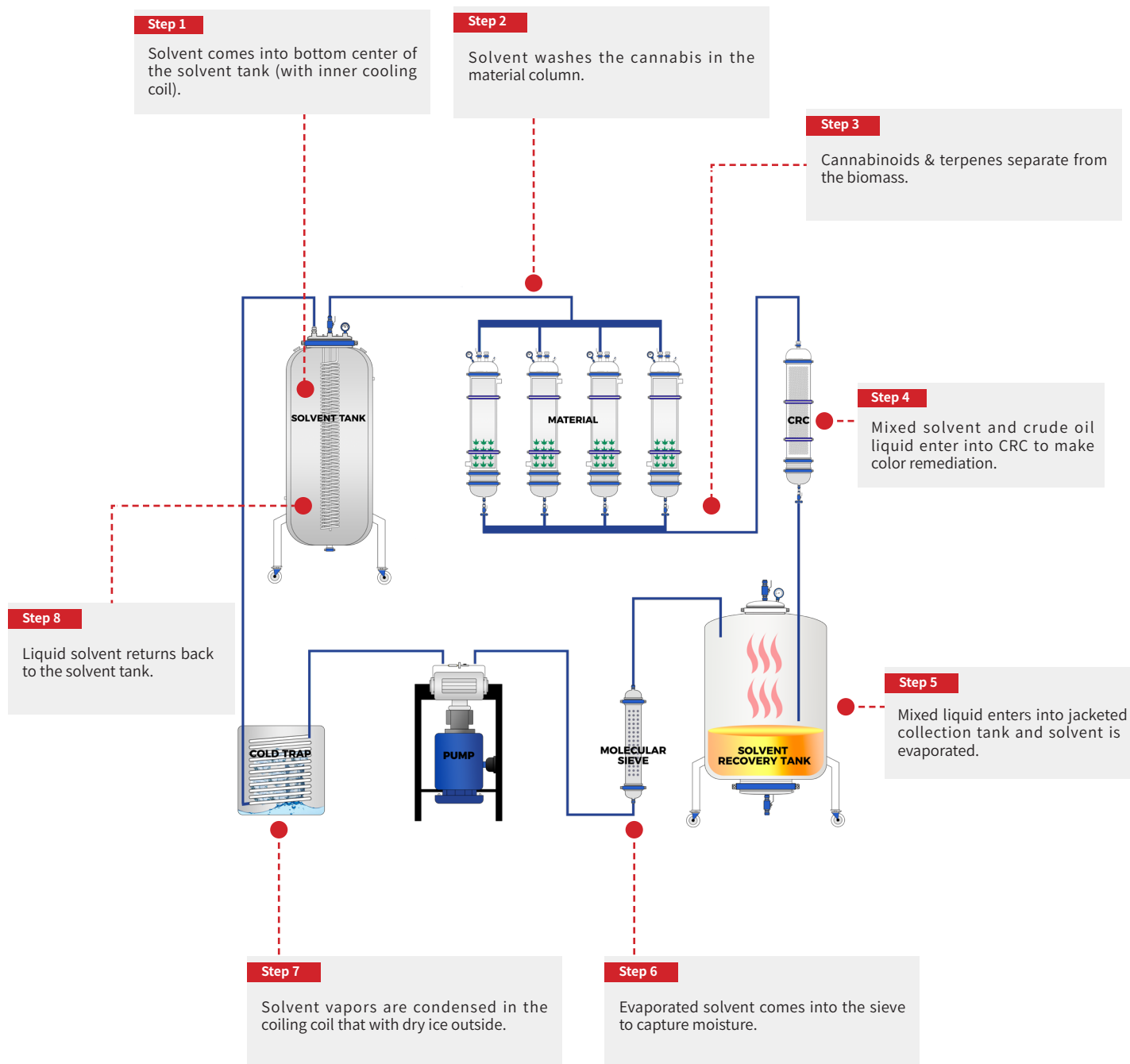
Each Lab1st BHO extractor comes with one or several material columns, 5 micron CRC, solvent tank, collection tank, and a sieve / coil combination. We also provide turnkey system including supporting chillers, solvent recovery pump, vacuum pump, tanks and all accessories.

 Handling capacity **5lbs -80lbs** per batch

 Pressure **200 PSI**



# Flow Chart



## Features



Capacity: 5lb/ 10lb /20lb / 40lb/ 80lb per batch.



Design pressure: 200 PSI; Operation pressure: 150 PSI.



6" x 12" or 6" x 24" CRC comes with a 5 micron sintered filter for color remediation.



Each column are equipped with sight glasses to viewing the extraction process.

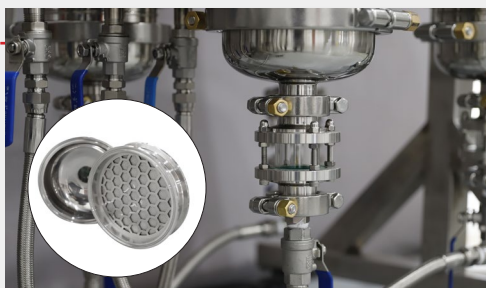




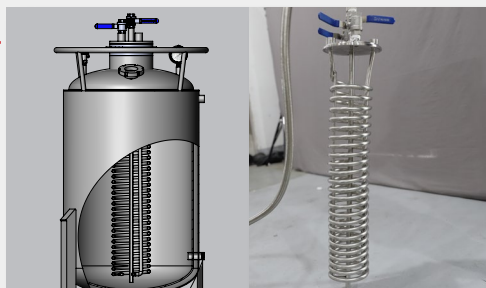
The sieve and coil improve solvent recovery and utilization efficiency.



The jacketed material column is with 50 micron sintering filter and collection vessel on the bottom, for easy collection.



Vacuum jacketed on solvent vessel with internal cooling coil, increasing the heat transfer area.



150 PSI Cryogenic Pressure relief valves for safe operation.





Solvent: 100% butane, 100% propane & isobutane solvents  
(Compatible with singular and mixed hydrocarbon solvents)



Certified for C1D1 environments; Optional: PSI certified, ATEX certified, GMP certified, ASME certified



Flexible setup with casters, easy to fixed and move



Several extraction vessels for continuous working



97% cannabinoid and terpene removal



## Extremely High Safety

Lab1st BHO extractors have extremely high safety. All vessels (columns) are high quality with high thickness. We will do strict quality inspection before delivery, including X-ray inspection and penetration test for welds, individual tank and overall system water pressure test etc.

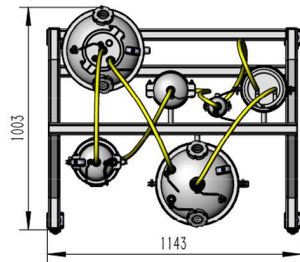
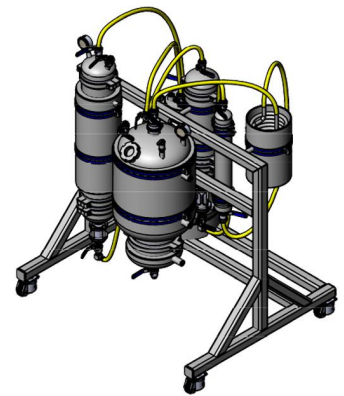
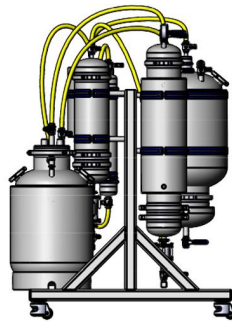
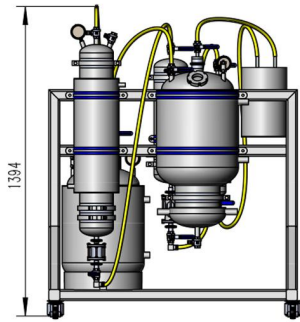
### Individual Tank Water Pressure Test



### Overall System Water Pressure Test

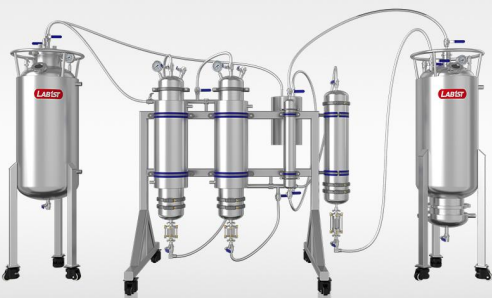
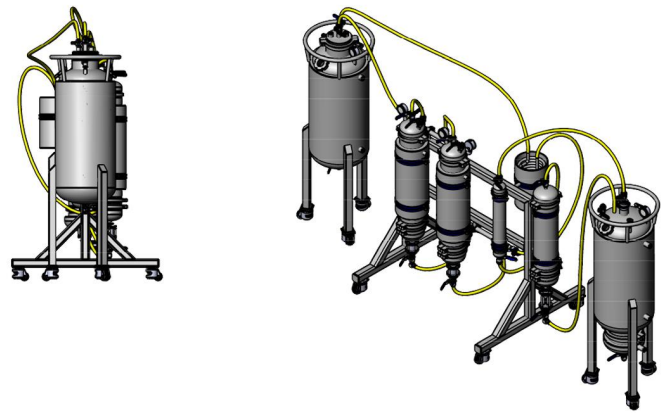
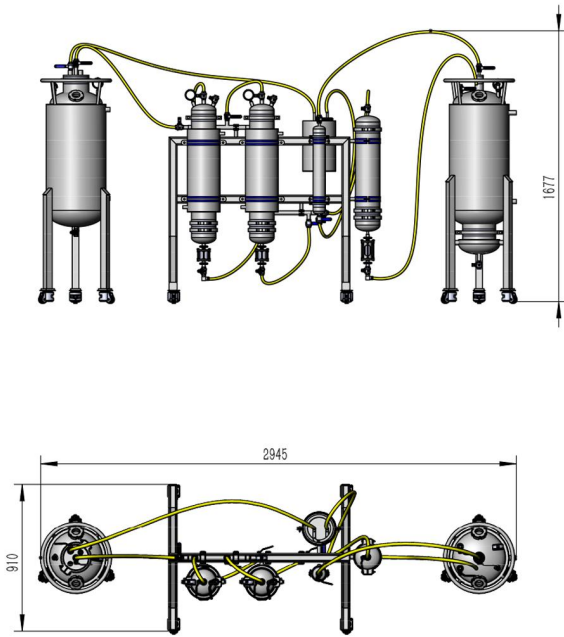


# Product Display ---BHO-05

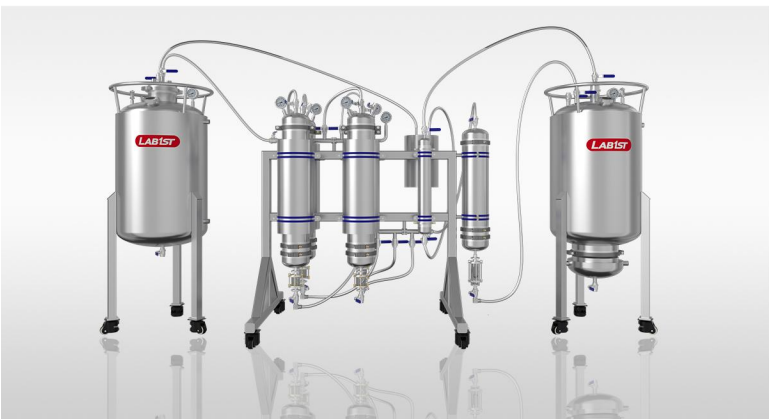
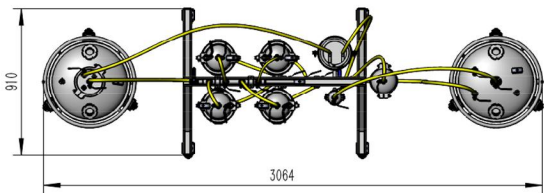
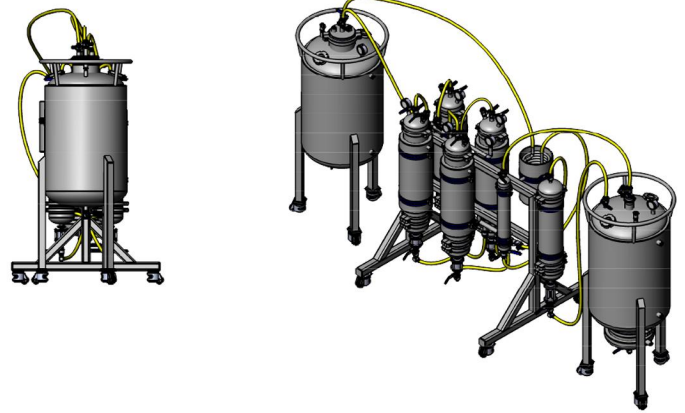
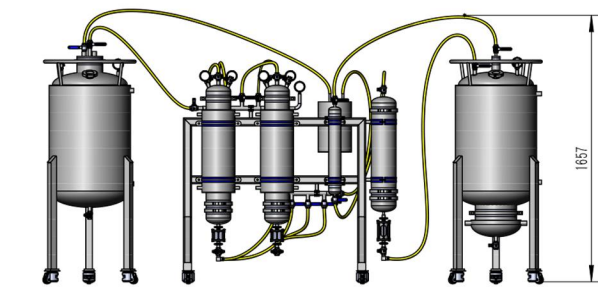




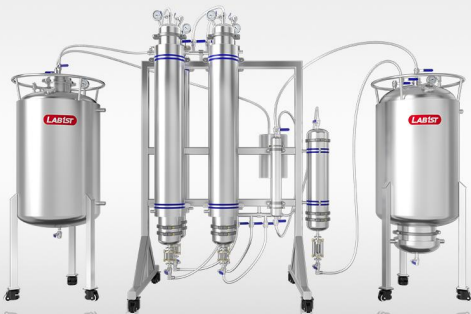
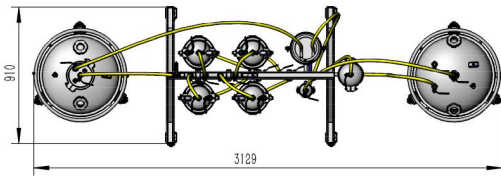
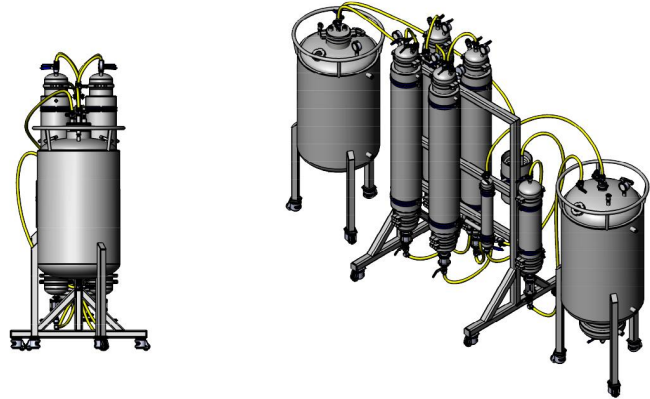
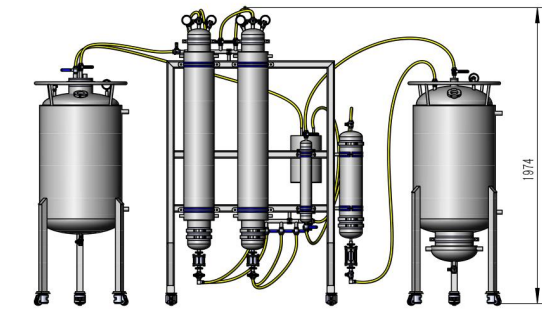
# Product Display ---BHO-10



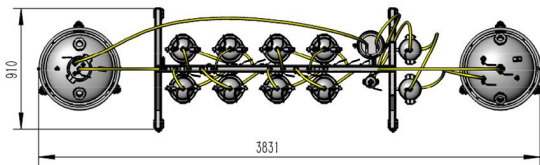
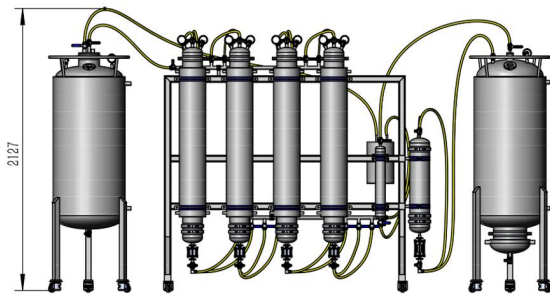
# Product Display ---BHO-20



# Product Display ---BHO-40



# Product Display ---BHO-80



# Technical Data

Model	BHO-05	BHO-10	BHO-20	BHO-40	BHO-80
Installation Dimension ["]	44x55x36	118x61x36	122x61x36	124x79x36	157x79x36
Installation Dimension [mm]	1120x1400x910	3000x1500x910	3100x1550x910	3150x2000x910	4000x2000x910
<b>Solvent Tank</b>					
Full Volume [L]	36	60	128	182	239
Usage Volume [L]	25	50	100	150	200
Theoretical Capacity (Butane   Water) [lb]"	35   79	68   132	136   282	193   400	253   526
Usage Capacity (Butane   Water) [lb]"	25   55	50   110	100   220	150   331	200   441
<b>Extraction Column</b>					
Size ["]	Φ6×24	Φ6×24	Φ6×24	Φ6×48	Φ6×48
Feeding Material [lb]	5	5	5	10	10
QTY	1	2	4	4	8
Filtration [μm]	125	125	125	125	125
<b>CRC</b>					
Size ["]	Φ6×12	Φ6×12	Φ6×24	Φ6×24	Φ6×24
QTY	1	1	1	1	2
Filtration [μm]	5	5	5	5	5
<b>Collection Tank</b>					
Full Volume [L]	41	65	136	190	247
Usage Volume [L]	25	50	100	150	200
Theoretical Capacity (Butane   Water) [lb]"	26   90	53   163	144   299	201   418	262   543
Usage Capacity (Butane   Water) [lb]"	25   55	50   110	100   220	150   331	200   441
<b>Molecular Sieve</b>					
Size ["]	Φ3×18	Φ3×18	Φ3×18	Φ3×18	Φ3×18
QTY	1	1	1	1	1
Filtration [μm]	5	5	5	5	5
<b>Condenser</b>					
Size ["]	Φ8×12	Φ8×12	Φ8×12	Φ8×12	Φ8×12
Condensation Area [ m <sup>2</sup> ]	0.3	0.3	0.3	0.3	0.3

## Supporting Equipment



Open Bath Heating Circulator (RT-180C) for Solvent Recovery Tank

Rotary Vane Oil Vacuum Pump (4L/s) for Extractor



MVP Recovery Pump (Recommend) for Continuous Working

Vacuum Drying Oven with Vacuum Pump





## More Upgrade Configuration Options

- Stainless Steel Cold Trap (with Dry Ice)

→ **Dual Layer Stainless Steel Cold Trap with A Chiller**



- Vacuum Drying Oven with Vacuum Pump

→ **Vacuum Drying Oven with Vacuum Pump + Stainless Steel Cold Trap with Chiller**



- Extraction column can be upgraded with an insulation jacket.
- We also provide -80C chiller if you want to make dewaxing.

## What You Will Get by BHO Extractor

Butane hash oil (BHO) is any cannabis extract that was produced by BHO extractor who uses butane as the primary solvent. Those BHO concentrates encompass different specific types that vary in consistency, color, texture and cannabinoids contents.

They include badder, wax, crumble, sauce, shatter, tincture, edibles and more. They are affected by many factors such as strain of marijuana used, techniques, production process and so forth.

