

## Specification Sheet for Cannabigerol (CBG) Isolate

<b>Product name:</b>	Cannabigerol (CBG) Isolate
<b>CAS-no.:</b>	25654-31-3
<b>Article-no.:</b>	CP.CBGI.002.X
<b>Country of origin:</b>	Switzerland
<b>Botanical name:</b>	Cannabis Sativa L.
<b>Plant parts used:</b>	Stalk, stem, flower

### Description:

The Product is a Resinoid from industrial hemp (Cannabis Sativa Extract). It is produced by maceration extraction, followed by purification steps. Solvents used are common carbon hydrogens and ethanol. It offers a high content of Cannabigerol and is purified from all other unwanted ingredients such as chlorophyll, fats, waxes and other cannabinoids.

### General information:

<b>Application and Use</b>	Raw material for professional use. Can be used as a raw material for R&D, cosmetics, consumer goods, or the chemical industry. Use always in accordance with all applicable laws and regulations.
<b>Composition and Ingredients</b>	100% hemp extract by weight and volume.
<b>Organic Certification</b>	Not Certified.
<b>Storage and Shelf Life</b>	24 months from the date of production, if stored with recommended conditions.
<b>Storage Conditions</b>	Well-sealed containers, in a dark, dry and cool (<20 °C) place.
<b>Residual Solvents</b>	Processed with Ethanol as well as n-Butane, n-Pentane or n-Heptane. Any solvents are carefully removed from the product.
<b>Pesticides</b>	No pesticides are used in the agriculture manufacturing process. All materials are tested in possible pesticides content.
<b>Heavy Metals</b>	During the agriculture process, the manufacturers take care to use fertilizers as well as fields with low heavy metal contents.
<b>Specification Limits</b>	Specification Limits for the products refer to limits for plant extracts or plant drugs and general specification of the Ph. Eur 10.0.

## Compliance:

We are compliant with all the Swiss regulations regarding the applicable laws (e.g., work safety, narcotic laws, agriculture laws, industrial laws). Our products are produced 100% according to current laws and regulations and the THC value of the products never exceed legal limits. Our products are always non-narcotics, and we always consider EU-regulations as well. If special compliance is needed (e.g., Organic-certified, EU-certified hemp or others), we can set up a Batch Compliance, for a special Batch we just produce on customers request according to his needs.

## Specification:

<b>Appearance</b>	Clear white or lightly off-white powder
<b>Odor</b>	No significant odor
<b>Consistency</b>	Fine-coarse powdered crystal
<b>Melting Point</b>	70–80 °C
<b>Boiling Point</b>	>200 °C
<b>Solubility</b>	Insoluble in water, soluble in ethanol, slightly soluble in oils and fats
<b>Cannabinoids<sup>1</sup></b>	
Cannabidiol (CBD)	<0.2 % (m/m)
Tetrahydrocannabinol (THC) <sup>2</sup>	<0.1 % (m/m)
Cannabigerol (CBG)	>96 % (m/m)
Cannabinol (CBN)	<0.1 % (m/m)
Cannabichromen (CBC)	<0.1 % (m/m)
<b>Heavy Metals<sup>3</sup></b>	
Arsenic (As)	<1.0 ppm (m/m)
Lead (Pb)	<5.0 ppm (m/m)
Cadmium (Cd)	<1.0 ppm (m/m)
Mercury (Hg)	<0.1 ppb (m/m)
<b>Pesticides<sup>4</sup></b>	<1.0 ppm (m/m)
<b>Residual Solvents<sup>5</sup></b>	
Ethanol	<5000 ppm
Pentane	<5000 ppm
Heptane	<5000 ppm

<sup>1</sup> Tested in an external laboratory with HPLC-MS/MS or HPLC/GC-DAD.

<sup>2</sup> The THC-content consists of  $\Delta^9$ -THC,  $\Delta^8$ -THC as well as THCA.

<sup>3</sup> Tested in an external laboratory with IPC-MS.

<sup>4</sup> Tested in an external laboratory with HPLC-MS/MS. The following will be tested (next page).

<sup>5</sup> Tested in an external laboratory with GC-DAD.

Abamectin, Acephate, Acetamiprid, Alanycarb, Aldicarb, Aldicarb-sulfon (Aldoxycarb), Aldicarb-sulfoxide, Ametoctradin, Ametryn, Amidithion, Aminocarb, Aminopyralid, Aspon, Atrazin, Azaconazole, Azadirachtin, Azamethiphos, Azinphos-methyl, Azoxystrobin, BAC C10, BAC C12, BACC14, BAC C16, BAC C18, Benalaxyl, Bendiocarb, Benfuracarb, Benodanil, Bensulfuron-methyl, Bentazon, Benthialicarb isopropyl, Benzoximat, Bifenazate, Bistrifluron, Bitertanol, Bixafen, Boscalid, Bromuconazol, Bupirimate, Buprofezin, Butocarboxim, Butocarboximsulfoxide, Cadusafos, Carbaryl, Carbendazim, Carbetamide, Carbofuran, Carbofuran-3-hydroxy, Carbosulfan, Carboxin, Chlorantraniliprole, Chlorfluazuron, Chloropropylate, Chromafenozide, Clodinafop-propargyl, Cloethocarb, Clofentezin, Clothianidin, CPA, 4-, Cyantraniliprole, Cyazofamid, Cyenopyrafen, Cyflufenamid, Cyflumetofen, Cyhexatin, Cymiazole, Cyproconazole, Cyromazin, D 2,4-, Daminozide, DDAC, DEET, Demeton-S-methyl, Demeton-S-methylsulfon, Demeton-S-methylsulfoxid (Oxydemeton-methyl), Diafenthiuron, Dialifos, Diazinon, Dibrom (Naled), Dichlorobenzamid 2,6-, Dichlorprop-P, Diclobutrazol, Dicrotofos, Diethofencarb, Difenconazol, Diflubenzuron, Dimethoat, Dimethomorph, Dimetilan, Dimoxystrobin, Diniconazole, Dinocap, Dinotefuran, Dioxacarb, Dioxathion, Diphenamid, Disulfoton-sulfon, Disulfoton-sulfoxid, Diuron, DMST, Dodemorph, Dodin, Emamectin-benzoat, Enoxastrobin, Epoxiconazol, Etaconazol, Ethaboxam, Ethiofencarb, Ethiofencarb-sulfon, Ethiofencarb-sulfoxid, Ethiprole, Ethirimol, Ethoxyquin, Etoxazol, Fenamidon, Fenamiphos, Fenamiphossulfon, Fenamiphos-sulfoxid, Fenarimol, Fenazaquin, Fenbuconazol, Fenbutatinoxid, Fenfuram, Fenhexamid, Fenoxycarb, Fenpropidin, Fenpropimorph, Fenpyrazamin, Fenpyroximat, Fensulfthion, Fenthion-sulfoxid, Fipronil, Fipronil-sulfon, Flazasulfuron, Flucacrypyrim, Fluaizifop, Fluazinam, Flubendamid, Flufenacet, Flufenoxuron, Flumorph, Fluopicolid, Fluopyram, Fluoxastrobin, Flupyradifurone, Fluoxypyr, Flurtamone, Flusilazol, Flutolanil, Flutriafol, Fluxapyroxad, Forchlorfenuron, Formetanate HCl, Fosthiazat, Fuberidazol, Furalaxyl, Furathiocarb, Halosulfuron-methyl, Haloxyfop, Haloxyfop-methyl, Heptenophos, Hexaconazol, Hexaflumuron, Hexythiazox, Imazalil, Imazaquin, Imicyafos, Imidacloprid, Iprobenphos, Iprovalicarb, Isazofos, Isoprocarb, Isoprothiolane, Isoproturon, Isopyrazam, Isoxathion, Linuron, Lufenuron, Malaöxon, Mandipropamid, MCPA, Mecoprop (MCP), Mepanipyrim, Metaflumizon, Metalaxyl, Metamitron, Metconazol, Methamidophos, Methiocarb, Methiocarb-sulfon, Methiocarb-sulfoxid, Methomyl, Methoprotryne, Methoxyfenozid, Metolcarb, Metosulam, Metribuzin, Mevinphos\*, Molinate, Monocrotophos, Morpholine, Morphothion, Myclobutanil, Naphtylacetamid-alpha (NAD), Napropamid, Neburon, Nicotine, Nitenpyram, Novaluron, Nuarimol, Ofurace, Omethoat, Oxadixyl, Oxamyl, Oxathiapiprolin, Pacllobutrazol, Paraoxonethyl, Paraoxon-methyl, Pencycuron, Pendimethalin, Penthiofop, Phenthoat, Phorate-sulfone\*, Phorate-sulfoxide, Phoxim, Picoxystrobin, Piperonylbutoxid, Pirimicarb, Pirimicarb-desmethyl, Prochloraz, Promecarb, Propamocarb, Propanil, Propetamphos, Propiconazol, Propoxur, Propyzamid, Proquinazid, Prosulfocarb, Proslufuron, Prothioconazol, Prothioconazol-desthio, Pymetrozin, Pyraclofos, Pyraclostrobin, Pyraflufen-ehyl, Pyribencarb, Pyridaben, Pyridalyl, Pyridaphenthion, Pyrifenox, Pyrifluquinazon, Pyriofenon, Pyriproxyfen, Quinmerac, Quinalofop-P, Resmethrin, Rotenon, Sethoxydim, Spinetoram, Spinosad, Spirotetramat, Spirotetramat Metaboliten / BY108330 enol-glucoside, Spirotetramat Metabolites / BY108330-enol, Spirotetramat Metabolites / BY108330-ketohydroxy, Spirotetramat Metabolites / BY108330-monohydroxy, Spiroxamin, Sulfosulfuron, Sulfoxaflor, Tebuconazol, Tebufenozid, Tebufenpyrad, Teflubenzuron, Tepraloxym DP, Terbutylazin, Tetraconazol, TFNA, TFNG, Thiabendazol, Thiacloprid, Thiamethoxam, Thiazafurion, Thiodicarb, Thiofanox, Thiophanathyl, Thiophanathyl, Tralkoxydim, Triadimefon, Triadimenol, Triazophos, Trichlorfon, Tricyclazol, Tridemorph, Trifloxystrobin\*, Triflumizol, Triflumuron, Triforin, Trimethacarb, 3,4,5-, Trinexapac-ethyl, Triticonazol, Tritosulfuron, Valifenalate (Valiphena), Vamidothion, Zoxamid.