

CERTIFICATE OF ANALYSIS

Material No: 704248
 Name: Caffeine anhyd granular 50kg

Lot No: 16222060
 Manufacturing date: 02-Jun-2016
 Retest date: 01-Jun-2021
 Actual specification: 846-22

Test	Method	Specification	Result
Appearance	843-20	White granules	complies
Identification	843-20	Must comply	complies
Beginning of melting	843-20	min. 235	237 °C
End of melting	843-20	max. 239	237 °C
Opalescence	843-20	Clear	complies
Colour	843-20	Colourless	complies
Acidity	843-20	Must comply	complies
Foreign alcaloids	843-20	must comply	complies
Sulfate	843-20	Max. 240 ppm	complies
Heavy metals, calc. as lead	843-20	Max. 10 ppm	complies
Lead	843-20	max. 1	< 1 ppm
Readily carbonisable substances	843-20	must comply	complies
Loss on drying	843-20	max. 0.5	< 0.1 %
Residue on ignition	843-20	Max. 0.1%	complies
Impurities	843-20	Max. 0.10 % each	complies %
Sum of all impurities	843-20	max. 0.1	< 0.1 %
Content (HPLC)	843-20	98.5 - 101.0	100.9 % i. Tr.
Content	843-20	99.5 - 100.5	100.2 % i. Tr.
Residual solvents	843-20	Must comply	complies
Chloroform	843-20	Max. 60 ppm	complies

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Release comment: Identification may be guaranteed by other means/methods (General Notices of Ph.Eur., USP)
 Sulfates, Heavy metals, Sulphated ash and Residual solvents are not routinely tested.

Caffeine anhydrous granules meets the test requirements stipulated in the current version of the following monograph(s): "Caffeine" of Ph.Eur., USP, FCC and JP.

Caffeine anhydrous granules is manufactured according to current GMP requirements.

This ingredient is considered NOT genetically modified or NOT derived from a genetically modified organisms as defined by the EC Regulations No. 1829/2003 of the European Parliament and of the European Council on genetically modified food and feed and EC Regulation No. 1830/2003 of the European Parliament and the European Council on the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms.

Released on: **17-Jun-2016**
 Manufacturer: Siegfried PharmaChemikalien Minden GmbH
 Karlstr. 15
 32423 Minden
 Germany

Site Quality Manager: Dr. Wenzel

This certificate of analysis has been signed electronically.
 It has been created automatically by the validated Siegfried Laboratory Information Management System (LIMS).