

Certificate of analysis

Product name: NUTRACET® complete
Quantity: 3.200 kg
Date of Production: 27.09.2019
Application: Alcohol vinegar production
Food status: Food grade
Producing plant: CETOTEC GmbH
 Zilzkreuz 23
 53604 Bad Honnef
 Germany
 Phone: +49 2224 900000
 e-mail: info@cetotec.com

Packaging: 20 kg Multi wall paper sack with PE-Inlay

Shelf life	27.09.2020		
Lot-No	191-39-19/ 192-39-19/ 193-39-19/ 194-39-19		
1.			
Description		(%)	
Dextrose Monohydrate		60	
Phosphates			
Potassium sulfate		38%	Mineral salts total
Magnesium sulfate			
Vitamins		<1	
Trace elements		<1	
Yeast extract		>1	

Bad Honnef, 05th November 2019

Bianca Schumacher



Certificate of Analysis

Certificate No:
000002/2020
02/07/2020
Page: 1 of 1

Manufacturer:	RAIZEN ENERGIA S/A	CNPJ:	08.070.508/0065-32
Address:	Rodovia Brig. Faria Lima KM 322	I.E.:	334.075.530.119
City:	Guariba	State:	SP
Phone:	16 3251 9000	Fax:	
Product:	9000054 - NEUTRAL HYDRATED ETHYL ETHANOL		
Tank nº:	TA11	Specification Code	EP.0030
Quantity (L):	3,285,858.00	Sampling Data	01/16/2020
Analyses Report No	890003634494	Time Sampling	03:48:38 PM

CHARACTERISTIC	UNIT	SPECIFICATION	ANALYSIS	METHODS
Alcoholic strenght %mass	%(m)	>= 94.0	94.3	NBR 5992 / NBR 15639
Alcoholic strenght %volume	%(V)	>=96.1	96.3	NBR 5992 / NBR 15639
Total acidity (as acetic acid)	mg/l	<=10	10	ASTM D 1613
Evaporation residue	mg/l	<=15	1	NBR8644
Electric conductivity	µS/m	<=50	20	NBR 10547
Alkalinity		NEGATIVE	NEGATIVE	NBR 9866
Permanganate test 20°C	minuto	>= 20	25	CTC-LA-MT2_009
Aspect		LII (1)	LII (1)	VISUAL
Aldehydes (acetaldehydes)	mg/l	<= 5	1	CTC-LA-MT2_012
Esters (Ethyl Acetate)	mg/l	<= 5	0	CTC-LA-MT2_012
Methanol	mg/l	<= 10	0	CTC-LA-MT2_012
Iso Propanol	mg/l	<=10	1	CTC-LA-MT2_012
Total Superior Alcohol	mg/l	<=10	0	CTC-LA-MT2_012
Benzene		<0.5	<0.5	CTC-LA-MT2_012
Crotonaldehyde		<0.4	<0.4	CTC-LA-MT2_012
Cyclohexane		<0.1	<0.1	CTC-LA-MT2_012
Odor		LOE (3)	LOE(3)	NBR 13526
Copper	mg/l	<=5.0	0.0	NBR 11331
Absorbance 240 nm	---	<=0.08	0.03	OGC 1347 (SGS)
Absorbance 250 nm	---	<=0.06	0.01	OGC 1347 (SGS)
Absorbance 270 nm	---	<=0.02	0.00	OGC 1347 (SGS)
External Analysis Laboratory			UNICAMP	
No. External Analysis Certificate	---		142219	
Seal number of control sample	---		62020	

Remarks:

The analytical results relate only to the sample tested.

(1) clear and free of impurities. |(3) free from strange odors | Results with"<" means below the detection limit of the method | Validity: 02 years

By definition, the field of quality certificate "Analysis Report No." refers to the lot, and the "Data Sampling" field refers to the Date of Manufacture.

Shipping No: 800303367 | 800303700 | 800306243 | 800305657

Costumer: 54347 - RAIZEN NORTH AMERICA INC

NF-e: 000308154 | 000308172 | 000308283 | 000308255

Lot: D19BF

Iso tanks: HOYU 964260-9 | HGTU 463561-4 | TCLU 900400-5 | GESU 809764-E

Responsible for Quality Control: JULIANA ZINSLY FACCO - CRQ 4363169 : 4ª Região

DOCUMENT APPROVED ELECTRONICALLY