

Certificate Of analysis Sugar - Values Campaign 2021 (measured maximum) Valid for all deliveries of the year 2022

	Unit	Max
Heavy metals & Minerals		
Copper (Cu)	mg/kg	0,051
Zinc (Zn)	mg/kg	<0,2
Iron (Fe)	mg/kg	0,43
Calcium (Ca)	mg/kg	35
Potassium (K)	mg/kg	25
Sodium (Na)	mg/kg	34
Magnésium (Mg)	mg/kg	<5
Phosphorus (P)	mg/kg	6,9
Cadmium (Cd)	mg/kg	<0,005
Lead (Pb)	mg/kg	<0,01
Arsenic (As)	mg/kg	<0,01
Mercury (Hg)	mg/kg	<0,005
Nickel (Ni)	mg/kg	<0,05
Chromium (Cr)	mg/kg	0,007
Cobalt (Co)	mg/kg	<0,005
Aluminium (Al)	mg/kg	<0,2
Sélénium (Se)	mg/kg	<0,1
Tin (Sn)	mg/kg	<0,01
Fluorine (F)	mg/kg	<20
Manganèse (Mn)	mg/kg	0,02

	Unit	Max
Pesticides organochlorés (OCP3)		
aldrin	mg / kg	<0,01
bifenthrin	mg / kg	<0,01
bromopropylate	mg / kg	<0,01
captafol	mg / kg	<0,01
captane	mg / kg	<0,01
chlorthalonil	mg / kg	<0,01
chlozolinate	mg / kg	<0,01
Lambda cyhalothrin	mg / kg	<0,01
cypermethrin	mg / kg	<0,01
dichlofluamide	mg / kg	<0,01
dicloran	mg / kg	<0,01
dicofol	mg / kg	<0,01
dieldrin	mg / kg	<0,01
diniconazole	mg / kg	<0,01
DDE	mg / kg	<0,01
4,4-DDE	mg / kg	<0,01
DDT	mg / kg	<0,01
4,4-DDT	mg / kg	<0,01
alfa-endosulfan	mg / kg	<0,01
beta-endosulfan	mg / kg	<0,01
endosulfan-sulfate	mg / kg	<0,01
endrine	mg / kg	<0,01
eticonazole	mg / kg	<0,01
fenarimol	mg / kg	<0,01
folpet	mg / kg	<0,01
alfa-HCH	mg / kg	<0,01
beta-HCH	mg / kg	<0,01
gamma-HCH	mg / kg	<0,01
heptachlore	mg / kg	<0,01
heptachlor-epoxide	mg / kg	<0,01
hexachlorobenzene	mg / kg	<0,01
kreloxim-methyl	mg / kg	<0,01
myclobutanil	mg / kg	<0,01
penconazole	mg / kg	<0,01
permethrin	mg / kg	<0,01
procymidone	mg / kg	<0,01
propiconazole	mg / kg	<0,01
propyzamide	mg / kg	<0,01
quintozene	mg / kg	<0,01
tecnazene	mg / kg	<0,01
tolylfuamide	mg / kg	<0,01
tolclofos-methyl	mg / kg	<0,01
triadimefon	mg / kg	<0,01
vinclozolin	mg / kg	<0,01

	Unit	Max
Pyrethroids		
allethrin	mg / kg	<0,01
bifenthrin	mg / kg	<0,01
cis permethrin	mg / kg	<0,01
trans permethrin	mg / kg	<0,01
cyfluthrin	mg / kg	<0,01
cyhalothrin	mg / kg	<0,01
cypermethrin	mg / kg	<0,01
deltamethrin	mg / kg	<0,01
fenpropathrin	mg / kg	<0,01
fenvalerate	mg / kg	<0,01
flucythrinate	mg / kg	<0,01
(tau)-fluvalinate	mg / kg	<0,01

	Unit	Max
PAK(16)		
Dibenzo-(al)-pyrene	µg/kg	<0,5
Dibenzo-(ac)-Pyrene	µg/kg	<0,5
Benzo(a)anthracene	µg/kg	<0,5
Benzo(ghi)perylene	µg/kg	<0,5
Cyclopenta (cd)pyrene	µg/kg	<0,5
Benzo(k)fluoranthene	µg/kg	<0,5
5-méthylchrysene	µg/kg	<0,5
Dibenzo-(ah)-pyrene	µg/kg	<0,5
Chrysene	µg/kg	<0,5
Indéno(1,2,3cd)pyrene	µg/kg	<0,5
Benzo-(j)-fluoranthene	µg/kg	<0,5
Benzo(a)pyrene	µg/kg	<0,5
Dibenzo-(ai)-pyrene	µg/kg	<0,5
Dibenzo(a,h)anthracene	µg/kg	<0,5
Benzo(b) fluoranthene	µg/kg	<0,5
fluorene	µg/kg	<5

	Unit	Max
Pesticides organoazotés (ONP3)		
benalaxyle	mg / kg	<0,01
bupirimate	mg / kg	<0,01
cyproconazole	mg / kg	<0,01
cyprodinil	mg / kg	<0,01
difénylamine	mg / kg	<0,01
diethofencarbe	mg / kg	<0,01
fenpropimorfe	mg / kg	<0,01
fludioxinil	mg / kg	<0,01
flutriafol	mg / kg	<0,01
hexaconazole	mg / kg	<0,01
mepanipyrim	mg / kg	<0,01
metalaxyl	mg / kg	<0,01
oxadixyl	mg / kg	<0,01
pirimicarbe	mg / kg	<0,01
pyrazophos	mg / kg	<0,01
pyrimethanil	mg / kg	<0,01
tebuconazole	mg / kg	<0,01
tebuconazole	mg / kg	<0,01

	Unit	Max
Microbiology		
Total mesophilic plate count	/10g	<10
Yeast	/10g	<10
Mold	/10g	<10
Enterobacteriaceae	/10g	<10
Staphylococcus aureus	/10g	<100
Salmonella	/25g	not detected
Listeria Monocytogenes	/25g	not detected
E. Coli	/10g	<10
Fec. Streptococci	/10g	<10
Thermof. Anaer. Gas Prod.	/10g	<10
Thermof. Anaer. H2S Prod.	/10g	<10
Thermof. Aerob. Flat Sour	/10g	<10
Osmofiele yeast	/10g	<100
Xerofiele Mold	/10g	<100
Bacillus cereus	/10g	<100
Clostridium perfringens	/10g	<10

	Unit	Max
Mycotoxins		
Aflatoxin B1	µg/kg	<1
Aflatoxin B2	µg/kg	<1
Aflatoxin G1	µg/kg	<1
Aflatoxin G2	µg/kg	<1
Sum of aflatoxins	µg/kg	<1
Ochratoxin A	µg/kg	<1
Zearalenon	µg/kg	<10
Fumosinin B1	µg/kg	<25
Fumosinin B2	µg/kg	<25
Fumosinin B1 + B2	µg/kg	<25
Deoxynivalenol	µg/kg	<50
Toxins TH2	µg/kg	<50
Toxins T2	µg/kg	<50

	Unit	Max
VOLATILE SOLVENTS		
Benzene	µg/kg	<5
Ethylbenzene	µg/kg	<5
Toluene	µg/kg	<5
o-xylene	µg/kg	<5
(m+p)-Xylene	µg/kg	<5

	Unit	Max
Pesticides organophosphorés (OPP2)		
azinfos-ethyl	mg / kg	<0,01
azinophos-methyl	mg / kg	<0,01
bromofos-ethyl	mg / kg	<0,01
bromofos-methyl	mg / kg	<0,01
chlorfenvinfos	mg / kg	<0,01
chlorpyrifos-ethyl	mg / kg	<0,01
chlorpyrifos-methyl	mg / kg	<0,01
diazinon	mg / kg	<0,01
dichlorvos	mg / kg	<0,01
dichlorfenthion	mg / kg	<0,01
dimethoate	mg / kg	<0,01
ethion	mg / kg	<0,01
ethoprophos	mg / kg	<0,01
etrimfos	mg / kg	<0,01
fenchlorfos	mg / kg	<0,01
fenitrothion	mg / kg	<0,01
fenthion	mg / kg	<0,01
fonofos	mg / kg	<0,01
fosalon	mg / kg	<0,01
fosfamidon	mg / kg	<0,01
glyphosate	mg / kg	<0,01
heptenofos	mg / kg	<0,01
isofenfos	mg / kg	<0,01
iprodione	mg / kg	<0,01
malathion	mg / kg	<0,01
mecarbam	mg / kg	<0,01
methidathion	mg / kg	<0,01
mevinfos	mg / kg	<0,01
parathion-ethyl	mg / kg	<0,01
parathion-methyl	mg / kg	<0,01
pirimifos-ethyl	mg / kg	<0,01
pirimifos-methyl	mg / kg	<0,01
sulfotep	mg / kg	<0,01
terbufos	mg / kg	<0,01
tetrachlorinfos	mg / kg	<0,01
tolclofos-methyl	mg / kg	<0,01
trichloronate	mg / kg	<0,01

	Unit	Max
Specific monoresidues		
chlorate	mg / kg	<0,005
Perchlorate	mg / kg	<0,005
ethylene oxide	mg / kg	<0,01

Analyzes carried out on monthly average samples during the sugar beet campaign, by accredited ISO 17025 laboratories

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	Unit	Specifications	Average
General parameters			
Humidity	%	< 0,06	0,025
Polarisation	%	> 99,7	99,87
Invert sugar	%	< 0,04	0,015
Sediments	ppm	< 7	5,6
Ashes	%	< 0,018	0,0045
	pt	< 10	2,51
Color type	IU	< 3	0,85
	pt	< 6	1,70
Color in solution	IU	< 30	21,93
	pt	< 4	2,92
SO2 content	ppm	< 10	0,30
Total UE points	pt	< 12	7,14
Filtrability	ml/10min		716
CaO	ppm		2,9
Turbidity	NTU		0,74
MA	mm		0,67
CV	%		32,57

		Specifications		Average deliveries 2020	
Particule sizes					
Denominations	MA (µm)	CV (%)	MA (µm)	CV (%)	
XF - Extra fine grain	240 - 330	< 40	268	26,9	
F - Fine grain	340 - 550	< 40	456	35,1	
M500 / Semoule	360 - 550	< 30	505	23,1	
M700 / Cristal	600 - 850	< 30	773	21,7	
M - Medium grain	650 - 880	< 50	774	29,9	
G - Big grain	750 - 1100	< 30	903	23,6	
TV / NT - Unsieved grain	340 - 800	< 50	651	36,5	

Analyses realised on basis of internal control plan
(internal lab)

A. Dumont :
QHSE Manager