


TECHNICAL DATA

 <p>BIONAP BIOACTIVE NATURAL PRODUCTS</p> <p>CONTRADA FURERIA - Z.I. OVEST 95032 PIANO TAVOLA BELPASSO (CT) - ITALY TEL.: +39 0957086560 FAX: +39 095958435 P. IVA: 03325100877 www.bionap.com e-mail: info@bionap.com</p>	<p style="text-align: right;">Product:</p> <p style="text-align: center; font-size: 1.5em; font-weight: bold;">MOROSIL</p>
E-mail: info@bionap.com	Compilation date: 01.06.10 Last review: 01 st July 2022

PRODUCT DESCRIPTION

Solid extract of Sicilian Red orange fruit (variety Moro)	
Code	10
Botanical name	Citrus Sinensis (L.) Osbeck
CAS Number	Citrus Sinensis fruit extract (8028-48-6) Maltodextrin (9050-36-6)
Family	Rutaceae
Use	Food ingredient.

CHEMICAL COMPOSITION

Active ingredients and support	Percentage (w/w)	Method
Anthocyanins (as cyanidin-3-glucoside)	0.8 – 0.9	Spectrophotometric
Hydroxycinnamic acids (caffeic, cumaric, sinapic, ferulic, cinnamic)	0.8 – 1.0	HPLC
Flavanones (hesperidin, narirutin)	2.0 – 2.2	HPLC
Ascorbic acid	4.3 – 4.5	HPLC
Support: Maltodextrin		

PHYSICAL-CHEMICAL PROPERTIES	
PARAMETERS	STANDARD VALUES
Form	Powder
Color	Red purple
Taste	Acid
Smell	Characteristic
Moisture	≤ 5%
Ashes	≤ 1.2%
Heavy metals:	Conform to Reg. EC 1881/2006 and subsequent modifications and supplements
Lead (Pb)	< 3 ppm
Arsenic (As)	< 3 ppm
Cadmium (Cd)	< 1 ppm
Mercury (Hg)	< 0.1 ppm
Pesticides	Conform to Reg. EC 396/2005 and subsequent modifications and supplements
PAH	Conform to Reg. EC 1881/2006 and subsequent modifications and supplements
Benzo(a)pyrene	< 10 µg/kg
Sum of Benzo(a)pyrene, Benz(a)anthracene, Benzo(b)fluoranthene and chrysene	< 50 µg/kg
Pyrrrolizidine alkaloids	Conform to Reg. (UE) 2020/2040 (ref. annex section 8.4.6.)
pH (2,5 % aqueous solution)	2.1 – 3.2
Solubility	Moderately soluble in water
Residual solvents (ethanol)	Less than 0.2%
Particle size	More than 90% pass 300 micron
Radioactivity	The product is not irradiated

MICROBIOLOGICAL SPECIFICATIONS	
PARAMETERS	STANDARD VALUES
Total plate count	< 1000 cfu/g
Yeasts and Moulds	< 100 cfu/g
Enterobacteriaceae	< 100 cfu/g
Escherichia coli	Absent
Pseudomonas aeruginosa	Absent
Staphylococcus aureus	Absent
Salmonella specie	Absent

TOXICOLOGICAL EVALUATION	
LD ₅₀ (in rats)	> 2 g/Kg
Primary skin irritation	No irritant Occlusive Patch method (25 volunteers)
Cytotoxicity	No toxic Epithelial human cells (Caco-2)

ADDITIONAL DATA

GMO free: according to Reg. UE 1829/2003 and Reg. UE 1830/2003.

STORAGE
Keep the container unopened in cool, dry place. Shelf life in the original bag: 36 months.

Note

The chemical and physical values, olfactory note and colour, can be change in base of changeableness of natural raw material or by technical improvement.