

**4RF18  
certificate****Complete feed  
for MICE and RATS****DESCRIPTION**

Complete feed for MICE and RATS  
Maintenance long term  
Shape: pellet 12 mm

**INGREDIENTS**

(Listed in descending order of inclusion)

Wheat, Corn gluten feed, Maize, Soybean meal extracted toasted, Lucerne meal, Fish meal, Wheat straw, Mineral dicalcium phosphate, Calcium carbonate, Soybean oil, Sodium chloride, Yeasts

**DIRECTION FOR USE**

Administer the dry product *ad libitum* to mice and rats housed for long terms studies with drinking water always available

**ADDITIVES**

Choline Chloride, D,L-Methionine, L-Lysine, Vitamins and Oligominerals

**STORAGE**

Keep cool and dry

**Contact MUCEDOLA  
for further details**

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   (Technical Manager)  
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**PACKAGING and SHELF LIFE**

Paper bags kg 12.5	9 months from DOM (Date of Manufacture)
Vacuum packed kg 20 (4 x kg 5) kg 10 (2 x kg 5)	24 months from DOM (Date of Manufacture)
Irradiated Vacuum packed kg 20 (4 x kg 5) kg 10 (2 x kg 5)	24 months from DOM (Date of Manufacture)



**Proximate Analysis**

	U.M	Typical Analysis
Moisture	%	12.00
Crude Protein	%	16.00
Crude Oil	%	2.50
Crude Fibre	%	7.50
Ash	%	6.50
NFE	%	55.50

**Carbohydrates**

	U.M	NATURAL	ADDED	TOTAL
Starch	%	48.66	-	48.66
Sucrose	%	2.98	-	2.98

**Energy**

	U.M	TOTAL
Gross Energy	kJ/kg	16165
	kCal/kg	3867
Metabolisable Energy	kJ/kg	11000
	kCal/kg	2632
Atawater Fuel Energy	kJ/g	12.90
	kCal/g	3.085

**Amino Acids**

	U.M	NATURAL	ADDED	TOTAL
Arginine	%	0.89	-	0.89
Lysine	%	0.71	0.14	0.85
Methionine	%	0.29	0.14	0.43
Cystine	%	0.36	-	0.36
Tryptophan	%	0.25	-	0.25
Histidine	%	0.44	-	0.44
Threonine	%	0.61	-	0.61
Isoleucine	%	0.71	-	0.71
Leucine	%	1.42	-	1.42
Phenylalanine	%	0.78	-	0.78
Valine	%	0.84	-	0.84
Tyrosine	%	0.56	-	0.56
Glycine	%	0.74	-	0.74
Serine	%	0.79	-	0.79

**Fatty Acids**

Saturated Fatty Acids	U.M	TOTAL
C12:0 Lauric	%	0.007
C14:0 Myristic	%	0.018
C16:0 Palmitic	%	0.378
C18:0 Stearic	%	0.081
Mono-unsaturated Fatty Acids	U.M	TOTAL
C16:1 Palmitoleic	%	0.015
C18:1 ω9 Oleic	%	0.541
Poly-unsaturated Fatty Acids	U.M	TOTAL
C18:2 ω6 Linoleic	%	1.465
C18:3 ω3 Linolenic	%	0.315

**Mineral and Trace Elements**

	U.M	NATURAL	ADDED	TOTAL
Ca	%	0.27	0.19	0.46
P total	%	0.45	0.19	0.64
Na	%	0.20	0.20	0.40
Cl	%	0.12	0.30	0.42
K	%	0.70	-	0.70
Mg	%	0.20	-	0.20
Fe	mg/kg	283	160	443
Cu	mg/kg	15.56	10.40	25.96
Mn	mg/kg	31.76	48.00	79.76
Zn	mg/kg	38.51	60.00	98.51
I	µg/kg	71	800	871
Se	µg/kg	243	-	243

**Vitamins**

	U.M	NATURAL	ADDED	TOTAL
VIT A	IU/kg	6565	14400	20965
VIT D3	IU/kg	-	1260	1260
VIT E	mg/kg	21.88	49.50	71.38
VIT B1 Thiamine	mg/kg	3.90	13.50	17.40
VIT B2 Riboflavin	mg/kg	2.55	6.70	9.25
VIT B6 Pyridoxine	mg/kg	4.81	6.00	10.81
VIT B12 Cyanocobalamine	µg/kg	6.44	27.00	33.44
VIT K Menadione	mg/kg	0.74	2.80	3.54
Folic Acid	mg/kg	0.47	1.90	2.37
Nicotinic Acid	mg/kg	44.90	55.00	99.90
Pantothenic Acid	mg/kg	12.21	14.40	26.61
Choline	mg/kg	1161	1005	2166
Biotin	µg/kg	460	279	739
Inositol	mg/kg	69	-	69

NATURAL: Nutrient data represent the best information available; they have been calculated from published values and from analytical testing of raw materials and finished product.  
The values could vary due to the natural variations in the ingredients and process.

ADDED: Supplements of amino acids, vitamins, and minerals

TOTAL: The calculated values

ATAWATER FUEL ENERGY (kcal/g) = [(Crude Oil% x 9) + (Crude Protein% x 4) + (NFE% x 4)]/100



Product <b>Standard Diet 4RF18 certificate Complete feed for MICE and RATS</b>	Date of issue February 8th, 2000	Revision 5
Reference <b>SPECIFICATION</b>	Update September 27th, 2010	Page 1/1

Product name: **Standard Diet 4RF18 certificate Complete feed for MICE and RATS  
Long Term Maintenance**

Packing: paper bags/boxes

Specification n°: **PF1611**

### Sensory analysis

Shape: pellet or flour

Color: hazel

Smell: characteristic

### Analysis

Parameters	U.M.	Typical analysis	Min	Max	Method of analysis
Total Viable Organism	UFC/g			20000	MUC.CBT
Total Viable Organism (irradiated)	UFC/g			10	MUC.CBT
<i>Clostridium perfringens</i>	UFC/g			10	MUC.PERF
Total coliforms	UFC/g			10	MUC.COL
<i>E.coli</i>	UFC/g			10	MUC.E.coli
Enterobacteriacee	UFC/g			100	MUC.ENTBAT
Enterobacteriacee (irradiated)	UFC/g			10	MUC.ENTBAT
<i>Enterococcus faecium</i>	UFC/g			10	MUC.ENT
<i>Enterococcus faecalis</i>	UFC/g			10	MUC.ENT
Yeasts	UFC/g			50	MUC.ML
Yeasts (irradiated)	UFC/g			10	MUC.ML
Molds	UFC/g			50	MUC.ML
Molds (irradiated)	UFC/g			10	MUC.ML
<i>Staphylococcus aureus</i>	UFC/g			10	MUC.STAPH
Salmonelle	Absent/25 g			Absent	MUC.SAL
Ash	%	6,50	5,50	7,50	MUC.CN
Crude fibre	%	7,50	5,80	9,20	MUC.CF
Crude fat	%	2,50	1,50	4,50	MUC.GR
Crude protein	%	16,0	14,0	18,0	MUC.PR
Moisture	%	12,0		13,0	MUC.UM
Vitamin A	U.I./kg	14400	11520	23040	MUC.Vit.A
Vitamin E	mg/kg	49,50	39,60	79,20	MUC.Vit.E
Copper	mg/kg	10,40	8,32	16,64	MUC.Cu

The Quality Control (CQ)  
  
**Fabio Bellacosa**

The Technical Manager  
  
**Dr Elisabetta MUCEDOLA**

# Diete Standard

certificate

**M** mucedola s.r.l.

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Aut. M.I.C.A. n. MG 830-PA 252 bis del 13/01/1993

Aut. Min. San. n. 582/A del 25/07/1990

Dir. Gen. San. Reg. Lombardia

αIT100001MI, αIT100002MI, αIT100003MI

αIT100004MI

## Mangime completo per TOPI e RATTI Mantenimento a lungo termine

*Solo per animali da laboratorio non destinati all'alimentazione umana  
Contiene farina di pesce non può essere somministrato ai ruminanti*

**Istruzioni per l'uso:** Somministrare asciutto a volontà a topi e ratti stabulati per ricerche a lungo termine, con acqua di bevanda sempre a disposizione.

**Composizione:** Frumento, semola glutinata di granturco, granturco, farina di estrazione di soia tostata, farina di erba medica, farina di pesce, paglia di frumento, fosfato bicalcico minerale, carbonato di calcio da rocce calciche macinate, olio di soia, cloruro di sodio, lieviti.

### ADDITIVI (per kg)

#### Additivi nutrizionali

E672	Vitamina A	U.I.	14400
E671	Vitamina D3	U.I.	1260
E1	Fe	mg	160
E5	Mn	mg	48
E6	Zn	mg	60
E4	Cu	mg	10,4
E2	I	mg	0,80
3b302	Co	mg	0,56

#### Additivi tecnologici

E562	Sepiolite	mg	730
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### Componenti analitici

Umidità	12,00
Proteina grezza	16,00
Oli e grassi grezzi	2,50
Fibra grezza	7,50
Generi grezze	6,50

# 4RF18

Formato / Shape / Format

pellet 12 mm

Peso netto all'origine  
Net weight / Poids net à l'origine

kg 12.5

LOTTO / BATCH / LOT

3xyzt

Data di produzione  
Date of manufacture  
Date de fabrication

g.m.a.

Da cons.preferib.entro:  
SHELF LIFE: Best before:  
Date de durabilité minimale:

g.m.a.

La scadenza indicata presuppone la  
conservazione in luogo fresco e asciutto

ETPF1611R9M\_It.Ing.Fr.

Aliment Standard

### 4RF18 certificate

Aliment complet pour RATS et SOURIS  
Entretien à long term terme

*Uniquement pour animaux de laboratoire pas destinés à l'alimentation humaine*

**Mode d'emploi:** Administrer sec à volonté aux rats et souris en stabulation pour des recherches à long terme, avec de l'eau de boisson toujours à disposition.

**Composition:** Blé, gluten feed de maïs, maïs, tourteau d'extraction de soja toasté, farine de luzerne, farine de poissons, paille de blé, phosphate bicalcique mineral, carbonate de calcium, huile de soja, chlorure de sodium, levures.

### ADDITIFS (par kg)

#### Additifs nutritionnels

E672	Vitamine A	U.I.	14400
E671	Vitamine D3	U.I.	1260
E1	Fe	mg	160
E5	Mn	mg	48
E6	Zn	mg	60
E4	Cu	mg	10,4
E2	I	mg	0,80
3b302	Co	mg	0,56

#### Additifs technologiques

E562	Sépiolite	mg	730
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Poids net à l'origine, date de fabrication, format et la date de durabilité minimale sont indiqués sur l'autre côté

Stockage en emballage d'origine dans un endroit frais et sec

Constituants analytiques	%
Humidité	12,00
Protéine brute	16,00
Matières grasses brutes	2,50
Fibres alimentaires brutes	7,50
Cendres brutes	6,50

*Cet aliment contient de la farine de poisson  
l'administration est interdite aux ruminants*

Standard Diet

### 4RF18 certificate

Complete feed for MICE and RATS  
Long Term Maintenance

*Only for laboratory animals*

**Directions for use:** Administer the dry product *ad libitum* to mice and rats housed for long terms studies with drinking water always available.

**Composition:** Wheat, corn gluten feed, maize, soybean meal extracted toasted, lucerne meal, fish meal, wheat straw, mineral dicalcium phosphate, calcium carbonate, soybean oil, sodium chloride, yeasts

### ADDITIVES (per kg)

#### Nutritional additives

E672	Vitamin A	I.U.	14400
E671	Vitamin D3	I.U.	1260
E1	Fe	mg	160
E5	Mn	mg	48
E6	Zn	mg	60
E4	Cu	mg	10.4
E2	I	mg	0.80
3b302	Co	mg	0.56

#### Technological additives

E562	Sepiolite	mg	730
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Net weight, date of manufacture, shape, shelf-life are printed on the other side

Keep cool and dry

#### Analytical constituents

Moisture	12.00
Crude protein	16.00
Crude oils and fats	2.50
Crude fibres	7.50
Crude ash	6.50

*Contains fish meal  
shall not be fed to ruminants*

Certificate of Analysis n° 36 of January 13th, 2017

Update February 9th, 2017

## Standard Diet 4RF18 certificate

Complete feed for MICE and RATS  
Long Term Maintenance

Shape: pellet 12 mm

SHELF-LIFE: Best Before 9 months from DOM (Date of Manufacture)

BROMATHOLOGICAL ANALYSIS	Method of analysis	Control Batch	Batch
		3225	322501
		Value %	Value %
Moisture	MUC.UM	9.68	10.08
Crude protein	MUC.PR	16.32	16.53
Crude fat	MUC.GR	2.96	-
Crude fibre	MUC.CF	7.28	-
Ash	MUC.CN	6.47	5.92

IT COMPLIES  
TO THE ORIGINAL

PESTICIDES ANALYSIS	Value [µg/kg]	Method of analysis	D.L.
<b>Organochlorine</b>			
Esaclorobenzene	ND	EPA - 8081 A	5 µg/kg
α-BHC } β-BHC }	ND	EPA - 8081 A	5 µg/kg
γ-BHC (Lindane)	ND	EPA - 8081 A	5 µg/kg
Keltane	ND	EPA - 8081 A	5 µg/kg
Eptaclor	ND	EPA - 8081 A	5 µg/kg
Eptacloroepoxide	ND	EPA - 8081 A	5 µg/kg
DDE } DDD } DDT }	ND	EPA - 8081 A	5 µg/kg
Dieldrin	ND	EPA - 8081 A	5 µg/kg
Endrin	ND	EPA - 8081 A	5 µg/kg
Thiodan	ND	EPA - 8081 A	5 µg/kg
<b>Organophosphorus</b>			
Phosdrin	ND	EPA - 8141 A	10 µg/kg
Diazinon	ND	EPA - 8141 A	10 µg/kg
Disulfoton	ND	EPA - 8141 A	10 µg/kg
Phyrimiphosmetyl	ND	EPA - 8141 A	10 µg/kg
Ronnel	ND	EPA - 8141 A	10 µg/kg
Dimetoate	ND	EPA - 8141 A	10 µg/kg
Fenthion	ND	EPA - 8141 A	10 µg/kg
Metylparathion	ND	EPA - 8141 A	10 µg/kg
Malathion	ND	EPA - 8141 A	10 µg/kg
Fenitrothion	ND	EPA - 8141 A	10 µg/kg
Parathion	ND	EPA - 8141 A	10 µg/kg
Phosphamidon	ND	EPA - 8141 A	10 µg/kg
Methyldathion	ND	EPA - 8141 A	10 µg/kg
Phenamiphos	ND	EPA - 8141 A	10 µg/kg
Ethion	ND	EPA - 8141 A	10 µg/kg
Diclorvos	ND	EPA - 8141 A	10 µg/kg
Clorphyriphosmetyl	ND	EPA - 8141 A	10 µg/kg
PCB	ND	EPA - 8082	20 µg/kg

ND = not detectable  
D.L. = detection limit

MICROBIOLOGICAL ANALYSIS	Value CFU/g	Method of analysis
Total Viable Organism	10000	MUC.CBT
Total Coliforms	< 10	MUC.COL
Enterobacteriacee	< 100	MUC.ENTBAT
Yeasts	< 50	MUC.ML
Molds	< 50	MUC.ML
<b>Fecal indicators</b>		
<i>Enterococcus faecium</i>	< 10	MUC.ENT
<i>Enterococcus faecalis</i>	< 10	MUC.ENT
<i>E. coli</i>	< 10	MUC.E.coli
<b>Pathogens</b>		
<i>Staphylococcus aureus</i>	< 10	MUC.STAPH
<i>Clostridium perfringens</i>	< 10	MUC.PERF
Salmonelle	absent in 25 g	MUC.SAL

INHIBITING SUBSTANCES	Value	Method of analysis	D.L.
MYCOTOXINES	absent	MUC.INIB.	-
Total Aflatoxines (B1, B2 - G1, G2)	ND µg/kg	MUC.AFLA2	5 µg/kg
<b>HEAVY METALS AND MINERALS</b>			
Lead (Pb)	0.89 mg/kg	EPA - 7420	0.05 mg/kg
Cadmium (Cd)	0.062 mg/kg	EPA - 7130	0.05 mg/kg
Selenium (Se)	ND mg/kg	EPA - 7740	0.05 mg/kg
Arsenic (As)	ND mg/kg	EPA - 7060 A	0.05 mg/kg
Mercury (Hg)	ND mg/kg	EPA - 7471	0.05 mg/kg
<b>OTHERS</b>			
Nitrite (NaNO <sub>2</sub> )	2.25 mg/kg	Colorimetric method	0.5 mg/kg
Nitrate (NaNO <sub>3</sub> )	37.07 mg/kg	Ionic chromatography	5 mg/kg
Fluoride (F <sup>-</sup> )	1.66 mg/kg	Potenzimetry	0.25 mg/kg
Nitrosodiethylamine	ND µg/kg	GC-MS	1 µg/kg
Nitrosodimethylamine	ND µg/kg	GC-MS	1 µg/kg

Comply with FF1611  
The Quality Control  
**Dr Federica CARACCILO**

Approved  
The Technical Manager  
**Dr Elisabetta MUCEDOLA**



The original certificates of analysis and the samples are kept in our archives

Reg. Imp. Milano 09353710156 - REA n. 1285086 - P.IVA 09353710156 - Cap. Soc €780.000,00 i.v.

Aut. M.I.C.A. N° MG 830-RA252 bis del 13/1/93 - Aut. Min. San. 582/A del 25-7-90

M27\_R3 Dec. n. 10869 αIT100001MI - Dec. n. 10870 αIT100002MI - Dec. n. 10871 αIT100003MI - Dec. n. 10872 αIT100004MI