Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

Additrace N concentrate for solution for infusion

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

1 ampoule of 10 ml contains:	
Chromic chloride hexahydrate	53.3 microgram
Copper chloride dihydrate	1.02 milligram
Ferric chloride hexahydrate	5.40 milligram
Manganese chloride tetrahydrate	198 microgram
Potassium iodide	166 microgram
Sodium fluoride	2.10 milligram
Sodium molybdate dihydrate	48.5 microgram
Sodium selenite anhydrous	173 microgram
Zinc chloride	10.5 milligram

The active ingredients in 10 ml of Additrace N correspond to:		
Cr	0.2 µmol	10 µg
Cu	6 µmol	380 µg
Fe	20 µmol	1.1 mg
Mn	1 µmol	55 µg
I	1 µmol	130 µg
F	50 µmol	950 µg
Mo	0.2 µmol	19 µg (as Mo^{6+})
Se	1 µmol	79 µg (as Se^{4+})
Zn	77 µmol	5 mg
The content of sodium and potassium in 10 ml corresponds to:		
Sodium	1.0 mg	52 µmol
Potassium	39 µg	1 µmol

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Concentrate for solution for infusion.

Clear solution, almost colourless.
§ Osmolality: approx. 3100 mosm/kg water
§ pH: 2.5

4 CLINICAL PARTICULARS

4.1 Therapeutic Indications

To meet basal to moderately increased requirements of trace elements in intravenous nutrition.

4.2 Posology and method of administration

Posology
Dosage is dependent on age, weight and any degree of deficiency of the patient and must be decided on an individual basis.

Adults: The recommended daily dosage of Additrace N in adult patients with basal to moderately increased requirements is 10 ml (one ampoule).

Children: Additrace N is not recommended for use in children weighing under 40 kg body weight. The trace element Peditrace should be used.

Method of administration
Additrace N must not be given undiluted.
For instructions on dilution of the medicinal product before administration, see section 6.6.

4.3 Contraindications

- Hypersensitivity to the active substances or to any of the excipients listed in section 6.1.
- Conditions with total biliary obstruction.
- Wilson's disease.

4.4 Special warnings and precautions for use

Additrace N should be used with caution in patients with impaired biliary and/or renal function in whom the excretion of trace elements (zinc, selenium, fluoride, chromium and molybdenum) may be significantly decreased.

Additrace N should also be used with caution in patients with biochemical or clinical evidence of liver dysfunction (especially cholestasis).

If the treatment is continued for more than 4 weeks, checking of manganese levels in blood is required. Manganese toxicity is more likely to occur in patients with impaired liver function and cholestasis as manganese is almost entirely dependent on the biliary route for excretion. Additrace N should be stopped if manganese levels rise to the potentially toxic range. (Please refer to appropriate reference ranges for the testing laboratory.)

No other additions should be made to solutions containing Additrace N unless compatibility is known.

4.5 Interaction with other medicinal products and other forms of interactions

No interactions with other drugs have been observed.

4.6 Fertility, pregnancy and lactation

Pregnancy
Animal reproduction studies or clinical investigations during pregnancy have not been carried out with Additrace N. However, the requirements of trace elements in a pregnant woman are slightly increased compared to non-pregnant women.

No adverse events are to be expected when Additrace N is administered during pregnancy.

Foetal bradycardia may occur following administration of parenteral irons. It is usually transient and a consequence of a hypersensitivity reaction in the mother. The unborn baby should be carefully monitored during intravenous administration of parenteral irons to pregnant women.

Breast-feeding
The active substances in Additrace N are secreted in human milk and effects have been shown in breastfed newborns/infants of treated women. These effects are desirable and anticipated.

4.7 Effects on ability to drive and use machines

Additrace N has no or negligible influence on the ability to drive and use machines.

4.8 Undesirable effects

No adverse effects related to the trace elements in Additrace N have been reported.

Reporting of suspected adverse reactions
Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via HPRA Pharmacovigilance, Earlsfort Terrace, IRL - Dublin 2; Tel: +353 1 6764971; Fax: +353 1 6762517. Website: www.hpra.ie; E-mail: medsafety@hpra.ie.

4.9 Overdose

In general, overdosage with Additrace is extremely unlikely as the quantity of trace elements per ampoule lies well below known toxic levels of administration.

In patients with impaired renal or biliary function, there is an increased risk for accumulation of trace elements. In case of a chronic overload of iron there is a risk of haemosiderosis, which in severe and rare cases can be treated by venesection.

Chronic overdosage may very rarely occur secondary to an unsuspected idiosyncratic deficiency in metabolism or excretion of a trace element. In this case, signs, such as nail dystrophy and insidious onset of symptoms secondary to haematological changes or tissue deposition, may be observed. Diagnosis would be confirmed by biochemical or haematological tests and treatment with Additrace N should be withdrawn.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Electrolytes in combination with other drugs, ATC code: B05X A31.

Additrace N is a mixture of trace elements in amounts normally absorbed from the oral diet and should have no pharmacodynamic effect besides maintaining or repleting the nutritional status.

5.2 Pharmacokinetic properties

When infused intravenously, the trace elements in Additrace N are handled in a similar way to trace elements from an oral diet. Individual trace elements will be taken up by tissues to different extents, depending on the requirements within each tissue to maintain or restore the concentration of each element for the metabolic requirements of that tissue.

Copper and manganese are normally excreted via the bile, whereas selenium, zinc and chromium (especially in patients receiving intravenous nutrition) are mainly excreted via the urine.

The main route of molybdenum excretion is the urine, although small amounts are excreted in the bile.

Iron is eliminated in small amounts by superficial loss and desquamation of gut cells.

Premenopausal women can lose 30-150 mg of iron in the monthly blood loss.

5.3 Preclinical safety data

There are no preclinical data of relevance to the safety evaluation beyond those already included in the SmPC.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Xylitol
Hydrochloric acid, concentrated (for pH adjustment)
Water for injections

6.2 Incompatibilities

This medicinal product must only be mixed with other medicinal products for which compatibility has been documented.Please refer to section 6.6.

6.3 Shelf life

Shelf life of the medicinal product as packed for sale
3 years

Shelf life after mixing
Chemical and physical in-use stability after dilution has been demonstrated for 24 hours at 25 °C. From a microbiological point of view, the product should be used immediately. If not used immediately, in-use storage times and conditions prior to use are the responsibility of the user and would normally not be longer than 24 hours at 2-8 °C, unless mixing has taken place in controlled and validated aseptic conditions.

6.4 Special precautions for storage

No special precautions for storage.
For storage conditions after mixing of the medicinal product, see section 6.3.

6.5 Nature and contents of container

Ampoule (polypropylene) 20 x 10 ml.

6.6 Special precautions for disposal

Handling
Do not use if Additrace N is cloudy or contains sediment.
Additions of Additrace N should be made aseptically within one hour prior to infusion start.

Compatibility
Additrace N may only be added to medicinal or nutrition solutions for which compatibility has been documented, like Kabiven or SmofKabiven.

7 MARKETING AUTHORISATION HOLDER

Fresenius Kabi Deutschland GmbH
Else-Kroener Strasse 1
Bad Homburg v.d.H 61352
Germany

8 MARKETING AUTHORISATION NUMBER

PA2059/023/002

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 27th March 2015

10 DATE OF REVISION OF THE TEXT

March 2020