



**Certificate of Analysis**

PRODUCT NAME: **Tran Olava – (Food Supplement)**  
 PRODUCT: **Oil from livers of Cod caught in the Norwegian Sea and surrounding oceans water. Minimally processed and molecularly distilled for highest purity and natural goodness.**

PRODUCT NO: **MNSG-207**  
 BATCH NO.: **1411008 (PC4070101)**  
 MANUFACTURED: **November 2014**  
 EXP. DATE: **November 2017**  
 BEST BEFFORE: **Three Years**

General	Manufacturing Spec.	Result	Methods
Pharmaceutical Form	Clear soft gelatin capsules containing a light golden oil	Conforms	Observation
Capsule size and shape	20 Oblong	Conforms	Observation
Average Fill Weight	1140 mg +/- 5%	1126	USP<2091>
Disintegration/Rupture Time	Max. 15 minutes	Conforms	USP<2040>
Acid Value <sup>1</sup>	Max. 3 mg KOH/g	0.03	Ph.Eur.2.5.1
Peroxide Value <sup>1</sup>	Max. 5 meq/kg	3.0	AOCS Cd 8-53
Anisidine Value <sup>1</sup>	Max. 20	19	Ph.Eur.2.5.36
Lead <sup>1</sup>	Max. 0.1 mg/kg	Passed	External laboratory
Cadmium <sup>1</sup>	Max. 0.1 mg/kg	Passed	External laboratory
Arsenic (inorganic) <sup>1</sup>	Max. 0.1 mg/kg	Passed	External laboratory
Mercury <sup>1</sup>	Max. 0.1 mg/kg	Passed	External laboratory
PCBs (209 Congeners) <sup>1</sup>	Max. 0.09 mg/kg	Passed	External laboratory
Sum of Dioxins & Furans (17) <sup>1</sup> - TEQ <sup>2</sup>	Max. 1.75 pg/g	Passed	External laboratory
Sum of Dioxins & Furans and Dioxin like PCBs <sup>1</sup> - TEQ <sup>2</sup>	Max. 3 pg/g	Passed	External laboratory

Microbiological Standard	Manufacturing Spec.	Result	Methods
Total Plate Count	Max. 3,000 cfu/g	<10/g	USP<2021> or Soleris*
Total Mold & Yeast Count	Max. 300 cfu/g	<10/g	USP<2021> or Soleris*
Salmonella	Negative/10g	Neg.	USP<2022>
Escherichia coli	Negative/10g	Neg.	USP<2022> or Soleris*
Staphylococcus aureus	Negative/10g	Neg.	USP<2022> or Soleris*

\* The Soleris Method is AOAC certified



Ingredients	Manufacturing Spec.	Result	Methods
Genuine Norwegian Cod Liver Oil w/Natural Lemon Flavor & Proprietary Antioxidant Blend <sup>3</sup>	1140 mg +/- 5%	1126 mg	Input
EPA (as TG) <sup>4</sup>	75 - 120 mg	95 mg	Ph.Eur. 2.4.29/GOED/AOCS
DHA (as TG) <sup>4</sup>	105 - 160 mg	127 mg	Ph.Eur. 2.4.29/GOED/AOCS
Other Omega-3s (as TG) <sup>4</sup>	Report	58 mg	Ph.Eur. 2.4.29/GOED/AOCS
Additional Omega-3 <sup>5</sup> (as TG) <sup>4</sup>	20 - 60 mg	100 mg	Ph.Eur. 2.4.29/GOED/AOCS
Total Omega-3s (as TG) <sup>4</sup>	225 - 310 mg	280mg	Ph.Eur. 2.4.29/GOED/AOCS
Vitamin A (naturally occurring)	425 – 1000 IU	448 IU/g	External laboratory
Vitamin D (naturally occurring)	40 – 100 IU	46 IU/g	External laboratory
Shell Ingredients	Gelatin, Glycerin, Purified Water	Conforms	Input
Shell Hardness	Regular	Conforms	Input

*Lisa McAteer*

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December 5, 2014

*Ruth Harrison*

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