

Safety Data Sheet

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Classification according to Regulation (EC) No. 1272/2008 [CLP]

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product code	31985062
Product name	OPTI MEM I
Unique Formula Identifier (UFI)	Not Applicable
Chemical Name	Not Applicable
REACH registration number	No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	For Research Use or Further Manufacturing. Not for diagnostic use or direct administration into humans or animals
Use Description Code	Not Applicable
Uses advised against	Not for consumer use.

Details of the supplier of the safety data sheet

Manufacturer / Supplier

LIFE TECHNOLOGIES EUROPE BV
KWARTSWEG 2
2665 NN BLEISWIJK
NETHERLANDS
31-(0)180 392 400
Email: MSDS@lifetech.com

Life Technologies Limited
3 Fountain Drive
Inchinnan Business Park
Paisley
PA4 9RF, UK
+44 (0)141 814 6100

Emergency telephone number

24 hour Emergency Response for Hazardous Materials Within the USA + Canada: 1-800-424-9300 and

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[or Dangerous Goods] Incident. Spill, Leak, Fire,
Exposure, or Accident. Call CHEMTREC

1-703-527-3887
Outside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

CHEMTREC Ireland (Dublin) + (353)-19014670 (Greeting Language: English and Irish)
CHEMTREC UK (London) + (44)-870-8200418 (Greeting Language: English)

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Physical hazards

Not Hazardous

Health hazards

Not Hazardous

Environmental hazards

Not Hazardous

Additional information

Not Applicable

Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms

None

Signal Word

None

Hazard Statements

Not Applicable

EU Specific Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

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Other hazards

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

SECTION 3: Composition/information on ingredients

Mixtures

We recommend handling all chemicals with caution.

Chemical Name	CAS No	EC No.	Weight-%	REACH registration number	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ammonium metavanadate	7803-55-6	232-261-3	<0.001	-	Acute Tox. 3 - H301 Eye Irrit. 2 - H319 Acute Tox. 4 - H332 Repr. 2 - H361 STOT RE 1 - H372 Aquatic Chronic 2 - H411
Sodium selenite	10102-18-8	233-267-9	<0.00001	-	Acute Tox. 2 - H300 Acute Tox. 2 - H330 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411

Chemical Name	Specific concentration limit (SCL)	M-Factor	Acute Toxicity Estimate
Ammonium metavanadate	-	-	-
Sodium selenite	-	-	-

SECTION 4: First aid measures

Description of first aid measures

Skin contact	Rinse skin with water. Immediate medical attention is not required.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
Inhalation	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
Notes to Physician	Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media

No information available.

Special hazards arising from the substance or mixture

Not known

Advice for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Always wear recommended Personal Protective Equipment

Use personal protection equipment

See section 8 for more information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers.

Specific end use(s)

For Research Use or Further Manufacturing. Not for diagnostic use or direct administration into humans or animals.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	EU OEL (TWA)	EU OEL (STEL)	EU Skin Notation
Ammonium metavanadate 7803-55-6	None	None	None
Sodium selenite 10102-18-8	None	None	None

Chemical Name	Austria	Belgium (TWA)	Czech Republic
Ammonium metavanadate 7803-55-6	None	None	None
Sodium selenite 10102-18-8	0.1 mg/m ³	0.2 mg/m ³	0.1 mg/m ³ TWA (as Se) 0.2 mg/m ³ Ceiling (as Se)

Chemical Name	Denmark (TWA)	Finland OEL (TWA)	France OEL (VME)
Ammonium metavanadate 7803-55-6	None	None	None
Sodium selenite 10102-18-8	0.1 mg/m ³	None	None

Chemical Name	Germany OEL (TWA)	Ireland (TWA)	Italy OEL (TWA)
Ammonium metavanadate 7803-55-6	None	None	None
Sodium selenite 10102-18-8	None	0.1 mg/m ³	None

Chemical Name	Lithuania OEL (TWA)	Netherlands OEL (MAC)	Norway
Ammonium metavanadate 7803-55-6	None	None	None
Sodium selenite 10102-18-8	0.1 mg/m ³	None	0.05 mg/m ³ TWA 0.15 mg/m ³ STEL

Chemical Name	Poland	Portugal	Spain OEL (TWA)
Ammonium metavanadate 7803-55-6	None	None	None
Sodium selenite 10102-18-8	0.1 mg/m ³ TWA 0.3 mg/m ³ STEL	0.2 mg/m ³ TWA	0.1 mg/m ³

Chemical Name	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Switzerland	United Kingdom
Ammonium metavanadate 7803-55-6	None	None	None
Sodium selenite 10102-18-8	0.1 mg/m ³ TLV NGV (except Hydrogen selenide, total dust, Se)	0.16 mg/m ³ STEL 0.02 mg/m ³ TWA	0.1 mg/m ³ TWA (except Hydrogen selenide, as Se)

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal protection equipment

Respiratory protection In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

Hand protection Wear suitable gloves Glove material: Compatible chemical-resistant gloves.

Eye protection Tight sealing safety goggles.

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Skin and Body Protection Wear suitable protective clothing.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls
No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	liquid	
Colour	No data	
Odour	No data	
Molecular Weight	No data	
Melting point / melting range	°C No data	°F No data
Boiling point / boiling range	°C No data	°F No data
Flammability (solid, gas)	No data	
Lower explosion limit	No data	
Upper explosion limit	No data	
Flash point	°C No data	°F No data
Autoignition Temperature	°C No data	°F No data
Decomposition temperature	°C No data	°F No data
pH	6-8	
Evaporation rate	No data	
Viscosity	No data	
Solubility	No data	
Partition coefficient: n-octanol/water	No data	
Vapour Pressure	No data	
Specific gravity	No data	
Relative density	No data	
Vapour density	No data	
Explosive properties	No data	
Oxidising properties	No data	
Particle characteristics	No data	

Other information

Information with regards to physical hazard classes

No information available

Other safety characteristics

No information available

SECTION 10: Stability and reactivity

Reactivity	None known.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Hazardous reaction has not been reported.
Conditions to avoid	No information available.
Incompatible materials	No dangerous reaction known under conditions of normal use.
Hazardous decomposition products	No data available.

SECTION 11: Toxicological information

Information on hazard classes as defined in Regulation (EC) No 1272/2008

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium metavanadate	= 58100 µg/kg (Rat)	2102 mg/kg (Rat)	=2.43mg/L(Rat) =2.61mg/L(Rat)
Sodium selenite	= 7 mg/kg (Rat)	No data available	No data available

Principal Routes of Exposure

Skin corrosion/irritation	Data are conclusive but insufficient for classification
Serious eye damage/irritation	Data are conclusive but insufficient for classification
Respiratory or skin sensitisation	Data are conclusive but insufficient for classification
Specific target organ toxicity (STOT) – single exposure	Data are conclusive but insufficient for classification
Specific target organ toxicity (STOT) – repeated exposure	Data are conclusive but insufficient for classification
Carcinogenicity	Data are conclusive but insufficient for classification
Germ cell mutagenicity	Data are conclusive but insufficient for classification
Reproductive Toxicity	Data are conclusive but insufficient for classification
Aspiration Hazard	Data are conclusive but insufficient for classification

Information on other hazards

Endocrine disrupting properties

No information available

Other information

No information available

SECTION 12: Ecological information

Toxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Ammonium metavanadate	No data available	No data available	No data available	No data available	No data available
Sodium selenite	No data available	No data available	No data available	No data available	No data available

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility in soil No information available.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors

Other adverse effects

No information available.

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

UN number or ID number	Not Applicable
UN proper shipping name	Not Applicable
Transport hazard class(es)	Not Applicable
Packing group	Not Applicable

Marine pollutant

No

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Environmental hazards

Not Hazardous

Special precautions for user

Not Applicable

Maritime transport in bulk according to IMO instruments

Not Applicable.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture**Substances of Very High Concern**

None

Substance subject to authorisation per REACH Annex XIV

None

Restricted substances under EC 1907/2006, Annex XVII

Chemical Name	Weight-%	EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances
Ammonium metavanadate	<0.001	Use restricted. See item 65.
Sodium selenite	<0.00001	Use restricted. See item 75.

Regulation (EC) No 649/2012 (Rotterdam Convention - export/import of dangerous chemicals)

None

Regulation (EU) No 2019/1021 (Stockholm Convention – persistent organic pollutants)

None

EU - Substances Depleting the Ozone layer (1005/2009)

None

German Water hazard classes (Wassergefährdungsklassen)

Chemical Name	Weight-%	Water hazard class (WGK)
Ammonium metavanadate	<0.001	hazard class 3 - highly hazardous to water
Sodium selenite	<0.00001	hazard class 2 - obviously hazardous to water

Other International Inventories

Chemical Name	EINECS (European Union)	ELINCS (European List of Notified Chemical Substances)	ENCS (Japan)	PICCS (Philippines)

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Ammonium metavanadate	Listed	-	Listed	Listed
Sodium selenite	Listed	-	Listed	Listed

Chemical Name	AICS (Australia)	South Korea (KECL)	Canada (DSL)	NDSL
Ammonium metavanadate	Listed	Listed	Listed	-
Sodium selenite	Listed	Listed	Listed	-

Chemical safety assessment

No Chemical safety assessment has been carried out.

Reason for revision Update according to Commission Regulation EU No. 2020/878
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References

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>
- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

Classification and procedure used to derive the classification for mixtures according to Regulation (EC)**1272/2008 [CLP]:**

Not classified

Abbreviations and acronyms**TWA** - Time-Weighted Average**OELs** - Occupational Exposure Limits**STEL** - Short Term Exposure Limit**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**KECL** - Korean Existing and Evaluated Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AICS** - Australian Inventory of Chemical Substances**NZIoC** - New Zealand Inventory of Chemicals**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**CEPA** - Canadian Environmental Protection Act**EPA** - Environmental Protection Agency**OSHA** - Occupational Safety and Health Administration of the US Department of Labour**IATA** - International Air Transport Association**DOT** - Department of Transportation**IMDG** - International Maritime Dangerous Goods**ACGIH** - American Conference of Governmental Industrial Hygienists**NIOSH** - National Institute for Occupational Safety and Health**AIHA** - American Industrial Hygiene Association**HMIS** - Department of Defense Hazardous Materials Information System**NTP** - National Toxicology Program**IARC** - International Agency for Research on Cancer

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006.

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

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