Safety Data Sheet
according to WHS Regulations

Printing date 24.11.2023 *Version number 2* *Revision: 24.11.2023*

Hazardous according to criteria of Australian Safety and Compensation Council.

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1 Identification

· **Product identifier**

· **Trade name: OptiScint Flow**

· **Article number:** 6013791, 6013793, 6013796
· **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application of the substance / the mixture** Laboratory chemicals

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Revvity Health Sciences B.V.
Rigaweg 22
9723 TH Groningen
The Netherlands
Phone: 0031 50 5445900
www.revvity.com
Australian contact address:
Revvity
Level 2 ,Building C, Tenancy A,
211 Wellington Road,
Mulgrave,
VIC 3170
Australia
Phone:+613 9212 8500

· **Further information obtainable from:**
Quality Assurance, Environment, Safety & Health (QA/ESH)
SDS.Groningen@revvity.com
· **Emergency telephone number:**
+31 50 5445971
CHEMTREC (within Australia) +(61)-290372994
CHEMTREC (from outside Australia) +1 703-527-3887

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2 Hazard(s) Identification

· **Classification of the substance or mixture**

GHS08 health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

GHS09 environment

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

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GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.

· **Label elements**
· **GHS label elements**
The product is classified and labelled according to the Globally Harmonised System (GHS).
· **Hazard pictograms**

GHS05 GHS07 GHS08 GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**
alcohols, C11-15-secondary, ethoxylated (10-20 %)
Diisopropyl naphthalene isomers (40-60 %)
bis(2-ethylhexyl) hydrogen phosphate (2.5-10 %)
Phosphoric acid, 2-ethylhexyl ester (2.5-10 %)
· **Hazard statements**
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H304 May be fatal if swallowed and enters airways.
H410 Very toxic to aquatic life with long lasting effects.
· **Precautionary statements**
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
· **Other hazards**
· **Results of PBT and vPvB assessment**

· **PBT:**	
38640-62-9	Diisopropyl naphthalene isomers

· **vPvB:**	
38640-62-9	Diisopropyl naphthalene isomers

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3 Composition and Information on Ingredients

· **Chemical characterisation: Mixtures**
· **Description:** Mixture of substances listed below with nonhazardous additions.

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· **Dangerous components:**

38640-62-9	Diisopropyl naphthalene isomers Asp. Tox. 1, H304 Aquatic Chronic 1, H410 PBT; vPvB	40-60%
68131-40-8	alcohols, C11-15-secondary, ethoxylated Eye Dam. 1, H318 Aquatic Chronic 3, H412	10-20%
68131-40-8	alcohols, C11-15-secondary, ethoxylated Aquatic Chronic 2, H411 Skin Sens. 1, H317	10-20%
68131-40-8	alcohols, C11-15-secondary, ethoxylated Aquatic Chronic 3, H412	10-20%
78-40-0	Triethyl phosphate Acute Tox. 4, H302; Serious eye damage/irritation – Category 2A, H319	2.5-10%
298-07-7	bis(2-ethylhexyl) hydrogen phosphate Skin Corr. 1B, H314 Acute Tox. 4, H302	2.5-10%
12645-31-7	Phosphoric acid, 2-ethylhexyl ester Skin Corr. 1B, H314	2.5-10%

· **Non-dangerous components**

92-71-7	2,5-Diphenyloxazole (PPO)	0-2.5%
7732-18-5	water, distilled, conductivity or of similar purity	0-2.5%
13280-61-0	1,4-Bis-(2-methylstyryl)-benzene (bis-MSB)	0-2.5%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First Aid Measures

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:** Rinse opened eye for several minutes under running water.
· **After swallowing:** If symptoms persist consult doctor.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire Fighting Measures

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Protective equipment:** No special measures required.

6 Accidental Release Measures

· **Personal precautions, protective equipment and emergency procedures** Not required.

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· **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

· **Handling:**
· **Precautions for safe handling** No special precautions are necessary if used correctly.
· **Information about fire - and explosion protection:** No special measures required.
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** None.
· **Specific end use(s)** No further relevant information available.

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8 Exposure controls and personal protection

· **Additional information about design of technical facilities:** No further data; see section 7.
· **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **Additional information:** The lists valid during the making were used as basis.
· **Personal protective equipment:**
· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
· **Respiratory protection:** Not required.
· **Protection of hands:**

Protective gloves

EN ISO 374-1/Type B
· **Material of gloves**
Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.2 mm
Breakthrough time: > 120 minutes
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye protection:**

Tightly sealed goggles

· **Body protection:** Protective work clothing

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9 Physical and Chemical Properties

· **General Information**	
· **Appearance:**	
· **Form:**	Fluid
· **Colour:**	Colourless
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **pH-value at 20 °C:**	<5
· **Change in condition**	
· **Melting point/freezing point:**	Undetermined.
· **Initial boiling point and boiling range:**	215 °C
· **Flash point:**	115 °C
· **Flammability (solid, gas):**	Not applicable.
· **Decomposition temperature:**	Not determined.
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Explosion limits:**	
· **Lower:**	0.4 Vol %
· **Upper:**	4.7 Vol %
· **Vapour pressure at 20 °C:**	>0 hPa
· **Density at 20 °C:**	0.96-0.98 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
· **water:**	Fully miscible.
· **Partition coefficient: n-octanol/water:**	Not determined.
· **Viscosity:**	
· **Dynamic:**	Not determined.
· **Kinematic:**	28 cSt at 20°C
· **Other information**	No further relevant information available.

10 Stability and Reactivity

· **Reactivity** No further relevant information available.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.

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· **Hazardous decomposition products:** No dangerous decomposition products known.

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11 Toxicological Information

· **Information on toxicological effects**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**		
ATE (Acute Toxicity Estimates)		
Oral	LD50	18,417 mg/kg

· **Skin corrosion/irritation**
Causes skin irritation.
· **Serious eye damage/irritation** Causes serious eye damage.
· **Respiratory or skin sensitisation** May cause an allergic skin reaction.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard**
May be fatal if swallowed and enters airways.

12 Ecological Information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behaviour in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
· **Results of PBT and vPvB assessment**

· **PBT:**	
38640-62-9	Diisopropyl naphthalene isomers

· **vPvB:**	
38640-62-9	Diisopropyl naphthalene isomers

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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· ***Uncleaned packaging:***
· ***Recommendation:*** *Disposal must be made according to official regulations.*
· ***Recommended cleansing agents:*** *Water, if necessary together with cleansing agents.*

14 Transport information

· ***UN-Number***	
· ***ADG, IMDG, IATA***	*UN3082*
· ***UN proper shipping name***	
· ***ADG***	*3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diisopropyl naphthalene isomers, alcohols, C11-15-secondary, ethoxylated)*
· ***IMDG***	*ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diisopropyl naphthalene isomers, alcohols, C11-15-secondary, ethoxylated), MARINE POLLUTANT*
· ***IATA***	*ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diisopropyl naphthalene isomers, alcohols, C11-15-secondary, ethoxylated)*
· ***Transport hazard class(es)***	
· ***ADG***	
· ***Class***	*9 (M6) Miscellaneous dangerous substances and articles.*
· ***Label***	*9*
· ***IMDG, IATA***	
· ***Class***	*9 Miscellaneous dangerous substances and articles.*
· ***Label***	*9*
· ***Packing group***	
· ***ADG, IMDG, IATA***	*III*
· ***Environmental hazards:***	*Product contains environmentally hazardous substances: Diisopropyl naphthalene isomers*
· ***Marine pollutant:***	*Yes (DOT)*
	Symbol (fish and tree)
· ***Special marking (ADG):***	*Symbol (fish and tree)*
· ***Special marking (IATA):***	*Symbol (fish and tree)*
· ***Special precautions for user***	*Warning: Miscellaneous dangerous substances and articles.*

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· **Hazard identification number (Kemler code):**	90
· **EMS Number:**	F-A,S-F
· **Stowage Category**	A
· **Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADG**	
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **Tunnel restriction code**	-
· **IMDG**	
· **Limited quantities (LQ)**	5L
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **UN "Model Regulation":**	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIISOPROPYL NAPHTHALENE ISOMERS, ALCOHOLS, C11-15-SECONDARY, ETHOXYLATED), 9, III

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15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Industrial Chemicals**	
38640-62-9	Diisopropyl naphthalene isomers
78-40-0	Triethyl phosphate
298-07-7	bis(2-ethylhexyl) hydrogen phosphate
12645-31-7	Phosphoric acid, 2-ethylhexyl ester
92-71-7	2,5-Diphenyloxazole (PPO)
7732-18-5	water, distilled, conductivity or of similar purity

· **Standard for the Uniform Scheduling of Medicines and Poisons**		
78-40-0	Triethyl phosphate	S6

· **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

· **GHS label elements**

The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**

GHS05 GHS07 GHS08 GHS09

· **Signal word** Danger

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· ***Hazard-determining components of labelling:***
alcohols, C11-15-secondary, ethoxylated (10-20 %)
Diisopropyl naphthalene isomers (40-60 %)
bis(2-ethylhexyl) hydrogen phosphate (2.5-10 %)
Phosphoric acid, 2-ethylhexyl ester (2.5-10 %)
· ***Hazard statements***
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H304 May be fatal if swallowed and enters airways.
H410 Very toxic to aquatic life with long lasting effects.
· ***Precautionary statements***

P261	*Avoid breathing dust/fume/gas/mist/vapours/spray.*
P273	*Avoid release to the environment.*
P280	*Wear protective gloves / eye protection / face protection.*
P301+P310	*IF SWALLOWED: Immediately call a POISON CENTER/ doctor.*
P331	*Do NOT induce vomiting.*
P305+P351+P338	*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

· ***Directive 2012/18/EU***
· ***Named dangerous substances - ANNEX I*** *None of the ingredients is listed.*
· ***Seveso category*** *E1 Hazardous to the Aquatic Environment*
· ***Qualifying quantity (tonnes) for the application of lower-tier requirements*** *100 t*
· ***Qualifying quantity (tonnes) for the application of upper-tier requirements*** *200 t*
· ***Chemical safety assessment:*** *A Chemical Safety Assessment has not been carried out.*

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· ***Relevant phrases***
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

· ***Department issuing SDS:*** *Quality Assurance, Environment, Safety & Health (QA/ESH)*
· ***Contact:*** *SDS.Groningen@revvity.com*
· ***Abbreviations and acronyms:***
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic

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vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Serious eye damage/irritation – Category 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
· **** Data compared to the previous version altered.***