

## Trade name:

twinlite	glow
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#### Article number:

6016796	twinlite glow Firefly & Renilla Luciferase Reporter Gene Assay System 10 mL kit
6016799	twinlite glow Firefly & Renilla Luciferase Reporter Gene Assay System 100 mL kit

082023 V1.0

#### 6016796:

Composition		Hazards identification
0RT0401	Firelite glow Lyophilized Substrate	
0RT0421	firelite glow Reconstitution Buffer	
0RT0411	renlite glow Lyophilized Substrate	
0RT0431	renlite glow Reconstitution Buffer	GHS08, H373

#### 6016799:

Composition		Hazards identification
0RT0407	Firelite glow Lyophilized Substrate	
0RT0425	firelite glow Reconstitution Buffer	
0RT0417	renlite glow Lyophilized Substrate	
0RT0435	renlite glow Reconstitution Buffer	GHS08, H373



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Printing date 17.08.2023

Version number 1

Revision: 17.08.2023

Not classified as hazardous according to criteria of Australian Safety and Compensation Council.

#### **1** Identification

#### · Product identifier

- Trade name: firelite glow Lyophilized Substrate
- · Article number: 0RT0401, 0RT0407
- · 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

#### 2 Hazard(s) Identification

- *Classification of the substance or mixture The product is not classified, according to the Globally Harmonised System (GHS).*
- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Other hazards
- · Results of PBT and vPvB assessment
- *PBT:* Not applicable.
- **vPvB:** Not applicable.

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	haracterisation: Mixtures : Mixture of substances listed below with nonhazardous additions.	
Dangerous	components:	
	<ul> <li>3,3',3"-Phosphinetriyltripropanoic acid</li> <li>Acute Tox. 4, H302; Skin Irrit. 2, H315; Serious eye damage/irritation – Category 2A, H319; STOT SE 3, H335</li> </ul>	0-2.5%
Non-danger	rous components	
6138-23-4	D(+) Trehalose dihydrate	80-100%
987-65-5	Adenosine 5' -triphosphate disodium	2.5-10%
2591-17-5	D-luciferine	0-2.5%
10102-17-7	Sodium thiosulphate pentahydrate	0-2.5%
7647-14-5	sodium chloride	0-1%
34500-31-7	L-Luciferin	0-1%
	pyrophosphate tetrasodium decahydrate	0-1%

## 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.

• Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water.

- · Methods and material for containment and cleaning up: Pick up mechanically.
- · Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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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.

#### 8 Exposure controls and personal protection

- Additional information about design of technical facilities: No further data; see item 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:  $\geq 0.1$  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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

#### 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.

Eye protection:



Tightly sealed goggles

· Body protection: Protective work clothing

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Trade name: firelite glow Lyophilized Substrate

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General Information		
Appearance:		
Form:	Solid	
Colour:	White	
Odour:	Characteristic	
Odour threshold:	Not determined.	
pH-value:	Not applicable.	
Change in condition		
Melting point/freezing point:	Undetermined.	
Initial boiling point and boiling range.	: Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gas):	Not determined.	
Decomposition temperature:	Not determined.	
Auto-ignition temperature:	Product is not selfigniting.	
Explosive properties:	Product does not present an explosion hazard.	
Explosion limits:	1 1	
Lower:	Not determined.	
Upper:	Not determined.	
Vapour pressure:	Not applicable.	
Density:	Not determined.	
Relative density	Not determined.	
Vapour density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with	11	
water:	Soluble.	
Partition coefficient: n-octanol/water:	Not determined.	
Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	

# 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.
- · Hazardous decomposition products: No dangerous decomposition products known.

### **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 22,727 mg/kg

• Skin corrosion/irritation Based on available data, the classification criteria are not met.

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- (Contd. of page 4) • Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- $\cdot$  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 Based on available data, the classification criteria are not met.

#### 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 hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow product to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- *PBT*: Not applicable.
- **vPvB:** Not applicable.
- 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.

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

UN-Number		
ADG, IMDG, IATA	Void	
UN proper shipping name		
ADĜ, ÎMDG, ÎATĂ	Void	
Transport hazard class(es)		
ADG, ADN, IMDG, IATA		
Class	Void	
Packing group		
ADG, ĬMDG, IATA	Void	

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Trade name: firelite glow Lyophilized Substrate

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Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
• Transport in bulk according to Annex II of M and the IBC Code	<b>farpol</b> Not applicable.	
· UN "Model Regulation":	Void	

#### 15 Regulatory information

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

· Australian Inventory of Industrial Chemicals

6138-23-4 D(+) Trehalose dihydrate

987-65-5 Adenosine 5' -triphosphate disodium

2591-17-5 D-luciferine

10102-17-7 Sodium thiosulphate pentahydrate

7647-14-5 sodium chloride

13472-36-1 pyrophosphate tetrasodium decahydrate

· Standard for the Uniform Scheduling of Medicines and Poisons

None of the ingredients is listed.

#### · Australia: Priority Existing Chemicals

None of the ingredients is listed.

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · 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.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- · 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

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Trade name: firelite glow Lyophilized Substrate

CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent DS50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Acute Tox. 4: Acute toxicity – Category 4 Skin Irrit. 2: Skin corrosion/irritation – Category 2 Serious eye damage/irritation – Category 2A: Serious eye damage/eye irritation – Category 2A STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

• \* Data compared to the previous version altered.

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Printing date 16.08.2023

Version number 1

Revision: 16.08.2023

Not classified as hazardous according to criteria of Australian Safety and Compensation Council.

#### **1** Identification

#### · Product identifier

- Trade name: firelite glow Reconstitution Buffer
- · Article number: 0RT0421, 0RT0425
- · 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

#### 2 Hazard(s) Identification

- *Classification of the substance or mixture The product is not classified, according to the Globally Harmonised System (GHS).*
- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Other hazards
- · Results of PBT and vPvB assessment
- *PBT:* Not applicable.
- **vPvB:** Not applicable.

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Trade name: firelite glow Reconstitution Buffer

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# 3 Composition and Information on Ingredients

· Chemical characterisation: Mixtures

- Description: Mixture of substances listed below with nonhazardous additions.
- · Dangerous components: Void

Non-danger	rous components	
7732-18-5	water, distilled, conductivity or of similar purity	80-100%
7365-45-9	4-(2-hydroxyethyl)piperazin-1-ylethanesulphonic acid	2.5-10%
6850-28-8	Tris(hydroxymethyl)aminomethaneacetate salt	2.5-10%
7783-20-2	ammonium sulphate	0-1%
77-86-1	Tris(hydroxymethyl)aminomethane	0-1%
9043-30-5	Genapol X-100 Eye Dam. 1, H318 Acute Tox. 4, H302	0-<1%
10035-04-8	Calcium Chloride Dihydrate Serious eye damage/irritation – Category 2A, H319	0-1%
7487-88-9	magnesium sulphate anhydrous	0-1%
6381-92-6	Ethylenediaminetetraacetic acid disodium dihydrate STOT RE 2, H373 Acute Tox. 4, H332 Aquatic Chronic 3, H412	0-1%

## 4 First Aid Measures

· General information: No special measures required.

- 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.
   Environmental precautions:
- Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water.

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Trade name: firelite glow Reconstitution Buffer

Do not allow to enter sewers/surface or ground water.

 $\cdot$  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 measures required.
- 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.

## 8 Exposure controls and personal protection

- Additional information about design of technical facilities: No further data; see item 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:
- The usual precautionary measures are to be adhered to when handling chemicals.
- · 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:  $\geq 0.1 \text{ mm}$ 

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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:

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Trade name: firelite glow Reconstitution Buffer

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Tightly sealed goggles

· Body protection: Protective work clothing

General Information	
Appearance:	
Form:	Fluid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not determined.
<i>pH-value at 20 °C:</i>	7
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	: 100 °C
Flash point:	Not applicable.
Flammability (solid, gas):	Not applicable.
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Explosion limits:	1 1
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure at 20 °C:	23 hPa
Density:	Not determined.
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
water:	Fully miscible.
Partition coefficient: n-octanol/water:	
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.

## 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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Trade name: firelite glow Reconstitution Buffer

· Hazardous decomposition products: No dangerous decomposition products known.

#### 11 Toxicological Information

· Information on toxicological effects

- · Acute toxicity Based on available data, the classification criteria are not met.
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- 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 Based on available data, the classification criteria are not met.

## 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 hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow product to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

• 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.

- · 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

Void

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Trade name: firelite glow Reconstitution Buffer

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· UN proper shipping name · ADG, IMDG, IATA	Void	
· Transport hazard class(es)		
· ADG, ADN, IMDG, IATA · Class	Void	
· Packing group · ADG, IMDG, IATA	Void	
Environmental hazards:	Not applicable.	
· Special precautions for user	Not applicable.	
• Transport in bulk according to Annex I and the IBC Code	<b>I of Marpol</b> Not applicable.	
· UN "Model Regulation":	Void	

## 15 Regulatory information

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

• Australian	Inventory of Industrial Chemicals	
7732-18-5	water, distilled, conductivity or of similar purity	
7365-45-9	9 4-(2-hydroxyethyl)piperazin-1-ylethanesulphonic acid	
7783-20-2	ammonium sulphate	
77-86-1	Tris(hydroxymethyl)aminomethane	
10035-04-8	Calcium Chloride Dihydrate	
7487-88-9	magnesium sulphate anhydrous	
6381-92-6	Ethylenediaminetetraacetic acid disodium dihydrate	
• Standard fo	or the Uniform Scheduling of Medicines and Poisons	
77-86-1	Tris(hydroxymethyl)aminomethane	S4
7487-88-9	magnesium sulphate anhydrous	S3
· Australia:	Priority Existing Chemicals	
None of the	e ingredients is listed.	
· GHS label	elements Void	
	tograms Void	
· Signal wor	d Void	
• Hazard star	tements Void	

• **Hazard statements** Void

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

· 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.

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Trade name: firelite glow Reconstitution Buffer

(Contd. of page 6) H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H373 May cause damage to organs through prolonged or repeated exposure. 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) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative • \* Data compared to the previous version altered.

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Printing date 21.08.2023

Version number 1

Revision: 21.08.2023

Not classified as hazardous according to criteria of Australian Safety and Compensation Council.

## 1 Identification

- · Product identifier
- Trade name: renlite glow Lyophilized Substrate
- · Article number: 0RT0411, 0RT0417
- · CAS Number:
- 128446-35-5
- ELINCS Number:
- 420-920-1
- *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

## 2 Hazard(s) Identification

Classification of the substance or mixture The substance is not classified, according to the Globally Harmonised System (GHS).
Label elements
GHS label elements Void
Hazard pictograms Void
Signal word Void
Hazard statements Void
Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.

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# Safety Data Sheet according to WHS Regulations

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Trade name: renlite glow Lyophilized Substrate

· vPvB: Not applicable.

## 3 Composition and Information on Ingredients

- · Chemical characterisation: Substances
- · CAS No. Description
- 128446-35-5 (2-Hydroxypropyl)-β-cyclodextrin <100%
- · Identification number(s)
- ELINCS Number: 420-920-1

### 4 First Aid Measures

- · General information: No special measures required.
- 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.
- · Environmental precautions:
- Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water.

- Methods and material for containment and cleaning up: Pick up mechanically.
- · 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 measures required.
- *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.

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• Further information about storage conditions: None.

• Specific end use(s) No further relevant information available.

### 8 Exposure controls and personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- Ingredients with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists valid during the making were used as basis.
- · Personal protective equipment:
- General protective and hygienic measures:
- The usual precautionary measures are to be adhered to when handling chemicals.
- · 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:  $\geq 0.1 \text{ mm}$ 

*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.

• Eye protection:

Tightly sealed goggles

· Body protection: Protective work clothing

# 9 Physical and Chemical Properties

• General Information	
· Appearance:	
· Form:	
· Colour:	

	Colour
•	<b>Odour:</b>

- Odour threshold:
- · pH-value:
- Change in condition • Melting point/freezing point:
- Initial boiling point and boiling range: Undetermined.
- · Flash point:
  - Flammability (solid, gas): Product is not flammable.

Solid White Characteristic

305 °C

Not determined.

Not applicable.

Not applicable.

- **Decomposition temperature:** Not determined.
- *Auto-ignition temperature:* Not determined.

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		(Contd. of page
Explosive properties:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapour pressure:	Not applicable.	
Density:	Not determined.	
Relative density	Not determined.	
Vapour density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
water:	Soluble.	
Partition coefficient: n-octanol/water:	Not determined.	
Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
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.
- · Hazardous decomposition products: No dangerous decomposition products known.

#### 11 Toxicological Information

- · Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · 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.
- $\cdot$  **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

### **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.

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Trade name: renlite glow Lyophilized Substrate

• Additional ecological information:

· General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water Do not allow product to reach ground water, water course or sewage system.

· Results of PBT and vPvB assessment

- *PBT:* Not applicable.
- **vPvB:** Not applicable.
- 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.

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

UN-Number ADG, IMDG, IATA	Void	
UN proper shipping name ADG, IMDG, IATA	Void	
Transport hazard class(es)		
ADG, ADN, IMDG, IATA Class	Void	
Packing group ADG, IMDG, IATA	Void	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex I and the IBC Code	<b>I of Marpol</b> Not applicable.	
UN "Model Regulation":	Void	

## 15 Regulatory information

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

· Australian Inventory of Industrial Chemicals

128446-35-5 (2-Hydroxypropyl)-β-cyclodextrin

 $\cdot$  Standard for the Uniform Scheduling of Medicines and Poisons

None of the ingredients is listed.

· Australia: Priority Existing Chemicals

None of the ingredients is listed.

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Trade name: renlite glow Lyophilized Substrate

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· GHS label elements Void

· Hazard pictograms Void

· Signal word Void

· Hazard statements Void

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I Substance is not listed.

· 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.

· 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 CAS: Chemical Abstracts Service (division of the American Chemical Society)

CAS: Chemical Abstracts Service (alvision of a particulation of a part

*PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative* 

\* Data compared to the previous version altered.

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Hazardous according to criteria of Australian Safety and Compensation Council.

#### **1** Identification

#### · Product identifier

- Trade name: renlite glow Reconstitution Buffer
- · Article number: 0RT0431, 0RT0435
- · 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:

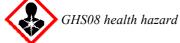
Revvity Health Sciences B.V. Rigaweg 22 9723 TH Groningen The Netherlands Phone: 0031 50 5445900 www.revvity.com Australian contact address: Revvity Level 2 ,Building C, Tenancy A, 211 Wellington Road, Mulgrave, VIC 3170 Australia Phone:+613 9212 8500

## Further information obtainable from: Quality Assurance, Environment, Safety & Health (QA/ESH) SDS.Groningen@revvity.com Emergency telephone number:

*Emergency telephone number.* +31 50 5445971 *CHEMTREC (within Australia) +(61)-290372994 CHEMTREC (from outside Australia) +1 703-527-3887* 

#### 2 Hazard(s) Identification

· Classification of the substance or mixture



STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

· Label elements

· GHS label elements

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



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· Hazard-determining components of labelling:

Kalium jodide

· Hazard statements

· Signal word Warning

H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• Other hazards

· Results of PBT and vPvB assessment

• **PBT:** Not applicable.

· vPvB: Not applicable.

## 3 Composition and Information on Ingredients

· Chemical characterisation: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

7681-11-0 K	alium jodide	🚸 STOT RE 1, H372	0-2.5%
Non-dangero	us components		
7732-18-5	water, distilled, conductivity or of similar purity		80-100%
128446-35-5	(2-Hydroxypropyl)-β-cyclodextrin		2.5-10%
125572-95-4	trans-1,2-Diaminocyclohexane-N,N,N',N'-tetraac		0-1%
9002-92-0	Polyethylene glycol dodecyl ether Eye Dam. 1, H318 Acute Tox. 4, H302		0-<1%
13472-36-1	pyrophosphate tetrasodium decahydrate		0-1%
10102-17-7	Sodium thiosulphate pentahydrate		0-1%
1310-73-2	Sodium hydroxide Sodium Corr. 1, H290; Skin Corr. 1A, H314		0-<0.5%

## 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.

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Trade name: renlite glow Reconstitution Buffer

(Contd. of page 2) • 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. · Environmental precautions:
- Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system. 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.

## 8 Exposure controls and personal protection

• Additional information about design of technical facilities: No further data; see item 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:  $\geq 0.1 \text{ mm}$ 

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. As the product is a preparation of several substances, the

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(Contd. of page 3) resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

#### · 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.

· Eye protection:

Tightly sealed goggles

· Body protection: Protective work clothing

# 9 Physical and Chemical Properties

· General Information	
· Appearance:	
· Form:	Fluid
· Colour:	Colourless
· Odour:	Characteristic
• Odour threshold:	Not determined.
· pH-value at 20 °C:	4.6
· Change in condition	
• Melting point/freezing point:	Undetermined.
• Initial boiling point and boiling range:	: 100 °C
· Flash point:	Not applicable.
· Flammability (solid, gas):	Not applicable.
• Decomposition temperature:	Not determined.
• Auto-ignition temperature:	Product is not selfigniting.
• Explosive properties:	Product does not present an explosion hazard.
• Explosion limits:	
· Lower:	Not determined.
· Upper:	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not determined.
• Evaporation rate	Not determined.
<ul> <li>Solubility in / Miscibility with</li> </ul>	
· water:	Fully miscible.
• Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
· Dynamic:	Not determined.
· Kinematic:	Not determined.
• 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.

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Trade name: renlite glow Reconstitution Buffer

- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.

• Hazardous decomposition products: No dangerous decomposition products known.

#### 11 Toxicological Information

- · Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · 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 May cause damage to organs through prolonged or repeated exposure.
- · Aspiration hazard Based on available data, the classification criteria are not met.

### **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: Do not allow product to reach ground water, water course or sewage system.
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 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.

- · 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

Void

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Trade name: renlite glow Reconstitution Buffer

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· UN proper shipping name · ADG, IMDG, IATA	Void	
· Transport hazard class(es)		
· ADG, ADN, IMDG, IATA · Class	Void	
· Packing group · ADG, IMDG, IATA	Void	
· Environmental hazards:	Not applicable.	
· Special precautions for user	Not applicable.	
• Transport in bulk according to Annex I and the IBC Code	<b>I of Marpol</b> Not applicable.	
· UN "Model Regulation":	Void	

## 15 Regulatory information

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

· Australian Ir	nventory of Industrial Chemicals
7732-18-5	water, distilled, conductivity or of similar purity
128446-35-5	(2-Hydroxypropyl)-β-cyclodextrin
7681-11-0	Kalium jodide
9002-92-0	Polyethylene glycol dodecyl ether
13472-36-1	pyrophosphate tetrasodium decahydrate
10102-17-7	Sodium thiosulphate pentahydrate
1310-73-2	Sodium hydroxide
· Standard for	the Uniform Scheduling of Medicines and Poisons
1310-73-2 S	odium hydroxide S5, S6, S1
• Australia: Pr	riority 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



· Signal word Warning

· Hazard-determining components of labelling:

Kalium jodide

· Hazard statements

H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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Trade name: renlite glow Reconstitution Buffer

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Directive 2012/18/EU

- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · 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

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

· 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2 **\* Data compared to the previous version altered.**