



SDS

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Trade name: twinlite

Article number: 6066706

| Composition | | Hazards identification |
|--------------------|----------------------------------------|-------------------------------|
| ORT0331 | Passive Lysis Solution | |
| ORT0301 | firelite plus Reconstitution Buffer | |
| ORT0315 | firelite plus Lyophilized Substrate | |
| ORT0351 | renlite plus Buffer | |
| ORT0361 | renlite plus Substrate (50X) | GHS02, H225 |

Hazardous according to criteria of Australian Safety and Compensation Council

SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** *renlite plus Substrate (50X)*
- **Article number:** *ORT0361*
- **1.2 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*
- **1.3 Details of the supplier of the safety data sheet**
Manufacturer:
PerkinElmer Health Sciences B.V.
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9723 TH Groningen
The Netherlands
P.O. Box 5205
9700 GE Groningen
The Netherlands
Phone: +31 50 5445900
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www.perkinelmer.com
- **Manufacturer/Supplier:**
Australian contact address:
PerkinElmer
Lvl 2, Bldg 5, Brandon Office Park
530-540 Springvale Road
Glen Waverley
Melbourne
VIC 3150
Australia
Telephone : +61 3-9212-8500
- **Further information obtainable from:**
Quality Assurance, Environment, Safety & Health (QA/ESH)
SDS.Groningen@perkinelmer.com
- **1.4 Emergency telephone number:**
+31 50 5445971
CHEMTREC (within Australia) +(61)-290372994
CHEMTREC (from outside Australia) +1 703-527-3887

SECTION 2: Hazard(s) Identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



(Contd. on page 2)

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Trade name: renlite plus Substrate (50X)

(Contd. of page 1)

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS02

Signal word Danger

Hazard statements

H225 Highly flammable liquid and vapour.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P280 Wear protective gloves / eye protection / face protection.

P240 Ground/bond container and receiving equipment.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P403+P235 Store in a well-ventilated place. Keep cool.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.


vPvB: Not applicable.

SECTION 3: Composition and Information on Ingredients

3.2 Chemical characterisation: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

| | | | |
|---------|----------|--------------------------------------------------------------------------------------------------------|--------|
| 64-17-5 | Ethanol |  Flam. Liq. 2, H225 | 60-80% |
| 56-81-5 | glycerol | substance with a Community workplace exposure limit | 20-40% |

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

SECTION 4: First Aid Measures

4.1 Description of 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.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

(Contd. on page 3)

Trade name: renlite plus Substrate (50X)

(Contd. of page 2)

- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Fire Fighting Measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental Release Measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 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.

SECTION 7: Handling and Storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **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.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

| | |
|-------------------------|----------------------------------------------------|
| 64-17-5 Ethanol | |
| WES | Long-term value: 1880 mg/m ³ , 1000 ppm |
| 56-81-5 glycerol | |
| WES | Long-term value: 10 mg/m ³ |

(Contd. on page 4)

Trade name: renlite plus Substrate (50X)

(Contd. of page 3)

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **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:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling
- **Body protection:** Protective work clothing

SECTION 9: Physical and Chemical Properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

| | |
|------------------|-----------------|
| Form: | Fluid |
| Colour: | Yellow-brown |
| Odour: | Alcohol-like |
| Odour threshold: | Not determined. |
- **pH-value:** Not determined.
- **Change in condition**

| | |
|------------------------------------------|---------------|
| Melting point/freezing point: | Undetermined. |
| Initial boiling point and boiling range: | 78 °C |
- **Flash point:** 12 °C
- **Flammability (solid, gas):** Not applicable.
- **Ignition temperature:** 400 °C
- **Decomposition temperature:** Not determined.
- **Auto-ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- **Explosion limits:**

| | |
|--------|-----------|
| Lower: | 0.9 Vol % |
|--------|-----------|

(Contd. on page 5)

Trade name: renlite plus Substrate (50X)

(Contd. of page 4)

| | |
|--------------------------------------------------|--------------------------------------------|
| Upper: | 15.0 Vol % |
| · Vapour pressure at 20 °C: | 59 hPa |
| · Density at 20 °C: | 0.88 g/cm ³ |
| · 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: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 80-100 % |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and Reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological Information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **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.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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.

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(Contd. on page 6)

Trade name: *renlite plus Substrate (50X)*

(Contd. of page 5)


SECTION 12: Ecological Information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 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 undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 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.


SECTION 14: Transport information

- | | |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| · 14.1 UN-Number | UN1993 |
| · ADG, IMDG, IATA | |
| · 14.2 UN proper shipping name | 1993 FLAMMABLE LIQUID, N.O.S. (vapour pressure at 50 °C not more than 110 kPa) (ETHANOL (ETHYL ALCOHOL)) |
| · ADG | |
| · IMDG | FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL)) |
| · IATA | Flammable liquid, n.o.s. (Ethanol) |
| · 14.3 Transport hazard class(es) | |
| · ADG | |
|  | |
| · Class | 3 (F1) Flammable liquids. |

(Contd. on page 7)

Trade name: *renlite plus Substrate (50X)*

(Contd. of page 6)

| | |
|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| · <i>Label</i> | 3 |
| · <i>IMDG, IATA</i> | |
|  | |
| · <i>Class</i> | 3 <i>Flammable liquids.</i> |
| · <i>Label</i> | 3 |
| · <i>14.4 Packing group</i> · <i>ADG, IMDG, IATA</i> | II |
| · <i>14.5 Environmental hazards:</i> | <i>Not applicable.</i> |
| · <i>14.6 Special precautions for user</i> · <i>Danger code (Kemler):</i> · <i>EMS Number:</i> · <i>Stowage Category</i> | <i>Warning: Flammable liquids.</i> 33 <i>F-E, S-E</i> B |
| · <i>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</i> | <i>Not applicable.</i> |
| · <i>Transport/Additional information:</i> | |
| · <i>ADG</i> · <i>Excepted quantities (EQ)</i> | <i>Code: E2</i> <i>Maximum net quantity per inner packaging: 30 ml</i> <i>Maximum net quantity per outer packaging: 500 ml</i> |
| · <i>Tunnel restriction code</i> | <i>D/E</i> |
| · <i>IMDG</i> · <i>Limited quantities (LQ)</i> · <i>Excepted quantities (EQ)</i> | <i>1L</i> <i>Code: E2</i> <i>Maximum net quantity per inner packaging: 30 ml</i> <i>Maximum net quantity per outer packaging: 500 ml</i> |
| · <i>UN "Model Regulation":</i> | <i>UN 1993 FLAMMABLE LIQUID, N.O.S. (VAPOUR PRESSURE AT 50 °C NOT MORE THAN 110 KPA) (ETHANOL (ETHYL ALCOHOL)), 3, II</i> |

SECTION 15: Regulatory information

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

· *Australian Inventory of Chemical Substances*

| | |
|---------|----------|
| 64-17-5 | Ethanol |
| 56-81-5 | glycerol |

· *Standard for the Uniform Scheduling of Medicines and Poisons*

None of the ingredients is listed.

(Contd. on page 8)

Trade name: renlite plus Substrate (50X)

(Contd. of page 7)

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I hydrogen chloride**
- **Seveso category P5c FLAMMABLE LIQUIDS**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t**
- **Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t**

· **National regulations:**

· **Technical instructions (air):**

| Class | Share in % |
|-------|------------|
| NK | 80-100 |

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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**

H225 Highly flammable liquid and vapour.

· **Department issuing SDS:** Quality Assurance, Environment, Safety & Health (QA/ESH)

· **Contact:** SDS.Groningen@perkinelmer.com

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport 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

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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

Flam. Liq. 2: Flammable liquids – Category 2

- *** Data compared to the previous version altered.**