

**MATERIAL SAFETY DATA SHEET**

**VIVANTIS TECHNOLOGIES SDN BHD  
REVONGEN CORPORATION CENTER**

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**SECTION 1: CHEMICAL IDENTIFICATION**

Catalogue Number: PC0908-1L

Product Name: Glycerol

**Intended Use:**

For research use only. Not for use in diagnostic procedures.

**Company Headquarters:**

Vivantis Technologies Sdn Bhd  
Revongen Corporation Center  
Level 17, Top Glove Tower,  
No. 16, Persiaran Setia Dagang,  
Setia Alam, Seksyen U13, 40170 Shah Alam,  
Selangor Darul Ehsan, Malaysia.

Tel: +6 03 3359 1166

Fax: +6 03 3358 0303

Email: [info@vivanttechnologies.com](mailto:info@vivanttechnologies.com)

Website: [www.vivanttechnologies.com](http://www.vivanttechnologies.com)

**Company Manufacturing:**

Vivantis Technologies Sdn Bhd  
Level 1, Enterprise 2,  
Technology Park Malaysia,  
Lebuhraya Puchong-Sg. Besi,  
57000 Bukit Jalil,  
Kuala Lumpur, Malaysia.

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**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	EC No.	%
Glycerol	56-81-5	200-289-5	95-100

**SECTION 3: HAZARDS IDENTIFICATION**

**GHS Classification**

Skin irritation - Category 2

Eye irritation - Category 2

**GHS Label elements, including precautionary statements**



Signal word: Warning

**Hazard statements**

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation

**Precautionary statements**

- P280 Wear protective gloves / protective clothing / eye protection / face protection.
- P302+P352 If on skin, wash with plenty of soap and water.
- P304+P340 If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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## **SECTION 4: FIRST-AID MEASURES**

In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.

In case of skin contact, wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

In case of inhalation, move to fresh air. If not breathing, give artificial respiration.

In case of ingestion, rinse mouth. Never give anything by mouth to an unconscious person.

## **SECTION 5: FIRE FIGHTING MEASURES**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Use water spray, dry chemical, carbon dioxide and appropriate foam.

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH and full protective gear.

Hazardous Combustion Products: Carbon oxide

Explosion data – sensitivity to mechanical impact: None.

Explosion data – sensitivity to static discharge: None.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

For personal protection, avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation.

For environmental precautions, prevent further leakage or spillage if safe to do so.

For cleaning up, absorb on sand or vermiculite and place in closed containers for disposal. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

## **SECTION 7: HANDLING AND STORAGE**

Handle in accordance with good industrial hygiene and safety practice.

Keep containers tightly closed in a dry, cool and well-ventilated place. Hygroscopic.

Incompatible with strong bases and strong oxidizing agents.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

This product does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

Respiratory protection:	Wear NIOSH/MSHA approved respiratory protection if exposure limits are exceeded or irritation is experienced. For high airborne contaminant concentration, positive pressure-supplied air respirators may be required. Respiratory protection must be provided in accordance with current local regulations.
Face/Eye protection:	Avoid contact with eyes. Safety glasses with side-shields.
Skin and body protection:	Wear protective gloves and clothing.

Use engineering measures such as showers, eyewash stations and ventilation systems.  
Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless, clear, and haze-free
Physical state:	Solution
Odor:	No information available
Odor threshold:	No information available
Decomposition Temperature	No information available
Density:	3.1
pH:	5.5 – 8.0
Melting point:	No data available
Freezing point:	No information available
Initial Boiling point:	No information available
Boiling point:	182°C/20MM
Flash point:	160°C/320°F
Autoignition temperature:	369°C/698°F
Upper Flammability limit in air:	No data available
Lower Flammability limit in air:	0.9
Explosive properties:	No information available
Oxidizing properties:	No information available
Solubility:	Soluble in water (if do mixing)
Partition coefficient (n-octanol/water):	No data available
Vapor density:	No data available
Evaporation rate:	No data available

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Specific gravity: 1.261  
Viscosity: No information available

## SECTION 10: STABILITY AND REACTIVITY

Stable under recommended storage conditions.

Materials to avoid: Strong bases, strong oxidizing agents  
Hazardous decomposition products: Carbon oxides  
Possibility of hazardous reactions: None under normal processing.  
Conditions to avoid: None known based on information supplied.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Acute toxicity:

Irritating to eye, skin and respiratory system.

LD50 Oral: Rat: 12600mg/kg  
LD50 Dermal: >10000mg/kg

### Chronic toxicity:

No known effect based on information supplied.  
Target Organ Effects: Kidneys

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity

Harmful to aquatic organisms.

Toxicity to algae: None  
Toxicity to Fish: LC50: Oncorhynchus mykiss: 51-57 ml/L 96 hours  
Microtox: None  
Daphnia Magna: EC50: >500 mg/L 24 hours  
Log Pow: -1.76

Persistence and degradability: No data available.  
Bioaccumulative potential: No data available.  
Other adverse effects: No data available.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

Dispose waste material in accordance with all federal, state and local regulations.  
For contaminated packaging, do not reuse.

**SECTION 14: TRANSPORT INFORMATION**

**DOT**

Not regulated.

**IATA**

Not regulated.

**SECTION 15: REGULATORY INFORMATION**

**International Inventories**

<b>TSCA</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Does not comply
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulation, Part 372:

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

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## **Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:

### **VOC Chemicals: Group II**

#### **CERCLA**

#### **U.S. State Regulations**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

#### **International Regulations**

##### **Maxico-Grade**

Carcinogen Status: None

Exposure Limits: TWA 10mg/m<sup>3</sup>

##### **Canada**

##### **WHMIS Hazard Class**

D2B Toxic materials



## **SECTION 16: OTHER INFORMATION**

The information contained in this MSDS relates only to the material(s) designed and does not relate to use(s) in combination with any other material, process(es) and /or chemical reaction(s). Vivantis Technologies Sdn. Bhd. provides this information in good faith, from sources believed to be accurate; however, Vivantis assumes no liability for its accuracy or completeness, and thus shall not be held liable for any damage resulting from handling or from contact with the above product.

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