

#### MATERIAL SAFETY DATA SHEET

## VIVANTIS TECHNOLOGIES SDN BHD REVONGEN CORPORATION CENTER

Document No.: MSDSrev05\_PC0708

Date prepared: 10<sup>th</sup> January 2023 Reviewed: 10<sup>th</sup> January 2023

## **SECTION 1: CHEMICAL IDENTIFICATION**

Catalogue Number: PC0708-1g; PC0708-5g; PC0708-10g

Product Name: Isopropyl-beta-D-thiogalactopyranoside (IPTG)

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@vivantechnologies.com Website: www.vivantechnologies.com

## **Company Manufacturing:**

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









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

Chemical Name	CAS No.	EC No.	Index No.	%
1,4 Dioxane	123-91-1	204-661-8	603-024-00-5	≥ 10 - <30%

Synonyms: Isopropyl-β-D-thiogalactopyranoside

Chemical formula: C<sub>9</sub>H<sub>18</sub>O<sub>5</sub>S Molecular weight: 2383 g/mol

## SECTION 3: HAZARDS IDENTIFICATION GHS Classification according to CLASS regulations 2013

Serious eye damage/eye irritation – Category 2 Carcinogenicity – Category 2

## GHS Label elements, including precautionary statements





Signal word: Warning

#### **Hazard statements**

H319 Causes serious eye irritation. H351 Suspected of causing cancer.

## **Precautionary statements**

P201 Obtain special instructions before use. P280 Wear eye protection/face protection.

P281 Use personal protective equipment as required.

P308+P313 If exposed or concerned: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention.

P501 Dispose of contents/container to an approved waste disposal plant.









#### **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. Consult a physician if symptoms occur.

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

In case of ingestion, rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.

Symptoms and effects, both acute and delayed include nausea, vomiting, weakness, dizziness, vertigo, headache, sweating, loss of appetite, kidney injury and liver injury.

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

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

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

Hazardous decomposition products formed under fire conditions: Carbon dioxide, sulphur oxides.

Flash point:

Explosion data – sensitivity to mechanical impact:

Explosion data – sensitivity to static discharge:

No data available.

No data available.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

For personal protection, use personal protective equipment. Avoid dust formation. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For environmental precautions, prevent further leakage or spillage if safe to do so. Do not let product enter drains.

For cleaning up, pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

# Pairing Nature with Scientific Discoveries info@vivantechnologies.com

www.vivantechnologies.com





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

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep refrigerated at 2-8 °C.

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Components	Country	Control parameters
1, 4 Dioxane	Malaysia	TWA: 20 ppm 721 mg/m <sup>3</sup> (skin)
Respiratory protection	use a full-face particle respirator respirator cartridges as a ba respirator is the sole means of respirator. Use respirators and	air-purifying respirators are appropriate or type N100 (US) or type P3 (EN 143) ackup to engineering controls. If the protection, use a full-face supplied air components tested and approved under rds such as NIOSH (US) or CEN (EU).
Face/Eye protection	• •	s conforming to EN166 Use equipment approved under appropriate government or EN 166(EU).
Skin protection	glove removal technique (with avoid skin contact with this pr	nout touching glove's outer surface) to roduct. Dispose of contaminated gloves applicable laws and good laboratory
Body protection		of protective equipment must be selected and amount of the dangerous substance

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

at the specific workplace.











#### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Light yellow Physical state: Powder

Odor: No information available
Odor threshold: No information available
Density: No information available
pH: No information available

Melting point/freezing point: 120-122°C

Initial Boiling point:

Boiling point:

No information available
No information available

Flash point: Not applicable Autoignition temperature: No data available

Decomposition temperature: No information available

Upper Flammability limit in air:

No data available
Lower Flammability limit in air:

No data available

Explosive properties:

Oxidizing properties:

No information available
No information available
No information available

Partition coefficient (n-octanol/water):

Vapor pressure:

Vapor density:

Evaporation rate:

Specific gravity:

No data available
No data available
No data available
No data available

Viscosity: No information available

## **SECTION 10: STABILITY AND REACTIVITY**

Stable under recommended storage conditions.

Materials to avoid: Oxygen, oxidizing agents, halogens, reducing agents,

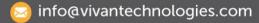
perchlorates, trimethylaluminum

Hazardous decomposition product: No data available.

Possibility of hazardous reactions: None under normal processing.

Conditions to avoid:

No data available.









## **SECTION 11: TOXICOLOGICAL INFORMATION**

## **Acute toxicity**

No data available.

Skin corrosion/irritation:

Serious eye damage/eye irritation:

Respiratory or skin sensitization:

Germ cell mutagenicity:

Reproductive toxicity:

Aspiration hazard:

No data available

No data available

No data available

STOT – single exposure: No data available STOT – repeated exposure: No data available

## Carcinogenicity

IARC: 2B - Group 2B: Possibly carcinogenic to humans (1,4-Dioxane).

## **Potential health effects**

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes Causes serious eye irritation.

## Signs and Symptoms of Exposure

Nausea, vomiting, weakness, dizziness, vertigo, headache, sweating, loss of appetite, kidney injury and liver injury.

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

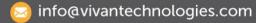
#### **SECTION 12: ECOLOGICAL INFORMATION**

## **Ecotoxicity**

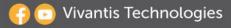
No data available.

Persistence and degradability: No information available. Bioaccumulation/Accumulation: No information available. No information available. No information available.

Other adverse effects: No data available.









## **SECTION 13: DISPOSAL CONSIDERATIONS**

Dissolve or mix the unused material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

For contaminated packaging, dispose as unused material.

Offer surplus and non-recyclable solutions to a licensed disposal company.

## SECTION 14: TRANSPORT INFORMATION ADR/RID

UN No.:

Proper shipping name: Not dangerous goods

Transport hazard class(es): Packaging group: Environmental hazards: No

**IMDG** 

UN No.:

Proper shipping name: Not dangerous goods

Transport hazard class(es): Packaging group: Environmental hazards: No

**IATA-DGR** 

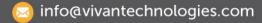
UN No.:

Proper shipping name: Not dangerous goods

Transport hazard class(es): Packaging group: Environmental hazards: No

## **SECTION 15: REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available









#### **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.

All Vivantis products are supplied for manufacturing, research and laboratory use only. Researchers and laboratory personnel intending to use any of these products for medical investigation on human are solely responsible for such use and for compliance with the pertinent regulations of the United States Food & Drug Administration (US-FDA) and other regulations. We do not assume liability for damages resulting from the handling, use and/or disposal of these products, from their use in violation of patent or other rights or reliance upon this information.



- info@vivantechnologies.com
- @ www.vivantechnologies.com

