Material Safety Data Sheet (MSDS)

Prepared according to Regulation EC No. 1907/2006
Revision date: 03.04.2023

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY

Product name: **IPTG, IPTG RTU (Isopropyl β-D-1-thiogalactopyranoside)**
Product number: 2003-1, 2003-5, 2003-25, 2003-15S

Relevant identified uses: laboratory chemical, for R&D use only.
Uses advised against: undefined.

Supplier:
A&A Biotechnology
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Emergency number: 112

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline

Relevant identified uses of the substance or mixture and uses advised against:
Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

Classification and labelling according to regulation (EC) No. 1272/2008

Classification:
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008
Label elements:
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Isopropyl β-D-thiogalactoside

Formula : $C_9H_{18}O_5S$
Molecular Weight : 238,3 g/mol

No components need to be disclosed according to the applicable regulations.

4. FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled: If breathed in, move the person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact: Wash off with soap and plenty of water. Consult a physician.
In case of eye contact: Flush eyes with water as a precaution.
If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Indication of any immediate medical attention and special treatment needed: no data available

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture: Carbon oxides, Sulphur oxides
Advice for firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let products enter drains.
Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Conditions for safe storage, including any incompatibilities: Store in cool place. Keep the container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: -20 °C
(hygroscopic - powder)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Personal protective equipment
Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Eye/face protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching the glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.
Body Protection: Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let products enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Form: solid or liquid
Odour:	no data available
no data available	no data available
pH	no data available
Melting point/freezing point	105 °C
Initial boiling point and boiling range	no data available
Flash point	no data available
Evaporation rate	no data available
Flammability (solid, gas)	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	no data available
Decomposition temperature	no data available
Viscosity	no data available
Oxidizing properties	no data available
Particle characteristics	not applicable

Other information:
No data

10. STABILITY AND REACTIVITY

Reactivity: no data available
Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: no data available
Conditions to avoid: Exposure to moisture.
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:	no data available
Skin corrosion/irritation:	no data available
Serious eye damage/eye irritation:	no data available
Respiratory or skin sensitization:	no data available
Germ cell mutagenicity:	no data available
Carcinogenicity:	
IARC:	2B - Group 2B: Possibly carcinogenic to humans (1,4-Dioxane)

Reproductive toxicity:	no data available
Specific target organ toxicity - single exposure:	no data available
Specific target organ toxicity - repeated exposure:	no data available
Aspiration hazard:	no data available

Additional Information: RTECS: no data available
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Liver - Irregularities - Based on Human Evidence (1,4-Dioxane)

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

Endocrine disrupting properties
None of the ingredients are listed.
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12. ECOLOGICAL INFORMATION

Toxicity:	no data available
Persistence and degradability:	no data available
Bioaccumulative potential:	no data available
Mobility in soil:	no data available
Results of PBT and vPvB assessment:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Endocrine disrupting properties:	None of the ingredients are listed.
Other adverse effects:	no data available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods: This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.
Waste treatment of containers/packaging: It is a dangerous waste; only packages which are approved (e.g. acc. to ADR) may be used.

Relevant provisions relating to waste: The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. W

Sewage disposal-relevant information: Do not empty into drains. Avoid release to the environment.
Remarks: Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

14. TRANSPORT INFORMATION

UN number or ID number

ADR/RID/ADN: - IMDG: - ICAO-TI: -

UN proper shipping name
ADR/RID/ADN: -

IMDG: -
ICAO-TI: -

Transport hazard class(es)

ADR/RID/ADN: -	IMDG: -	ICAO-TI: -

Packing group

ADR/RID/ADN: -	IMDG: -	ICAO-TI: -

Environmental hazards

ADR/RID/ADN: no	IMDG: Marine pollutant:no	ICAO-TI: no

Special precautions for user: no data available

Maritime transport in bulk according to IMO instruments: The cargo is not intended to be carried in bulk

15. REGULATORY INFORMATION

This safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008.
Alignment to regulation: Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. A&A Biotechnology, shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.
MSDS has been prepared in accordance with EC regulation 1272/2008/EC and other European Union legislation in force.

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

DISCLAIMER: For R&D use only. Not for drug, household or other uses.