Safety data sheet

ChemiPURE IPTG

Product name ChemiPURE IPTG	Catalog no. IPTG01, IPTG05
Synonyms Isopropyl beta-D-thiogalactopyranoside; IPTG	SDS revision -
CAS no. 367-93-1	Format version / date 3 / 25 October 2026

01 PRODUCT AND COMPANY IDENTIFICATION

Product identifier	ChemiPURE IPTG
Product code	IPTG01; IPTG05 (same substance, different package sizes)
CAS number	367-93-1
EC number	206-703-0
Recommended use	For research use only. Induction of lac-regulated recombinant gene and protein expression in bacteria; blue/white screening in conjunction with X-Gal.
Supplier	EcoTech Biotechnology
Website	www.ecotechbiotech.com
Address	Universite Mah. İpekyolu Cad. Ata Teknokent Sitesi B Blok No: Z10, Yakutiye, Erzurum, Türkiye
Telephone	0090 544 327 34 97
SDS contact	info@ecotechbiotech.com
Emergency telephone	0090 544 327 34 97
Available	Monday-Saturday/08:00-20:00/GMT+3
Languages	Turkish/English
Outside these hours	Contact: info@ecotechbiotech.com

02 HAZARDS IDENTIFICATION

Classification	IPTG substance: classification criteria are not met under Regulation (EC) No. 1272/2008 (CLP) based on available data. Classification of the supplied grade requires review of its impurity profile.
Label elements	No hazard label required for IPTG substance on the above basis; confirm for the supplied grade.
Symbols / pictograms	None for the substance on the available data.
Signal word	None for the substance on the available data.
Hazard statements	None assigned to IPTG substance on the available data.
Precautionary statements - Prevention	Avoid inhalation of dust, ingestion and contact with eyes. Wear protective gloves and safety eyewear. Wash hands after handling.
Precautionary statements - Response	In case of exposure, rinse affected skin or eyes with plenty of water. Seek medical advice if irritation or other symptoms persist.
Other hazards	Hygroscopic solid; minimize dust. Residual solvent and other impurity identities/concentrations have not been established for the supplied grade; verify before final CLP classification.

Composition & response

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03 COMPOSITION / INFORMATION ON INGREDIENTS

Product name	ChemiPURE IPTG
Synonyms	IPTG; Isopropyl beta-D-1-thiogalactopyranoside; Isopropyl beta-D-thiogalactoside
Concentration	IPTG: >=98% purity (product specification).
Formula	C9H18O5S
Molecular weight	238.30 g/mol
Mixture statement	Primary component: Isopropyl beta-D-1-thiogalactopyranoside (CAS 367-93-1; EC 206-703-0), >=98%.

04 FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact	Immediately rinse cautiously with water, including beneath eyelids, for at least 15 minutes. Remove contact lenses if easy. Obtain medical attention if irritation persists.
Skin contact	Wash thoroughly with water and soap. Remove contaminated clothing. Seek medical advice if irritation continues.
Inhalation	Move to fresh air. If symptoms develop or breathing difficulties occur, seek medical attention.
Ingestion	Rinse mouth with water. Do not induce vomiting. Seek medical advice if symptoms occur. Never give anything by mouth to an unconscious person.
Self-protection of first aider	Wear suitable gloves and protective eyewear; avoid breathing airborne dust.
Most important symptoms / effects	No specific effects established from available substance data; dust contact may cause temporary irritation.
Notes to physicians	Treat symptomatically.

05 FIREFIGHTING MEASURES

Suitable extinguishing media	Water spray, carbon dioxide, dry chemical powder or alcohol-resistant foam.
Unsuitable extinguishing media	No specific restrictions established; select extinguishing medium appropriate for the surrounding fire.
Special hazards arising from the substance or mixture	Thermal decomposition may emit irritating vapours and carbon oxides and sulfur oxides.
Explosion data	No product-specific explosion-limit data available. Avoid formation of airborne organic dust.
Advice for firefighters	Wear full protective equipment and self-contained breathing apparatus in the event of fire.

Safe use & protection

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06 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Avoid generating or inhaling dust. Use adequate ventilation, protective gloves, eye protection and laboratory clothing.
Environmental precautions	Avoid uncontrolled release to drains, watercourses or soil.
Methods and materials for containment and cleaning up	Carefully collect or sweep up dry material without dispersing dust. Transfer into suitable, sealed and clearly labelled containers for disposal.
Reference to other sections	Refer to Sections 8 and 13 for personal protection and waste management.

07 HANDLING AND STORAGE

Precautions for safe handling	Avoid dust generation, ingestion and inhalation. Use adequate ventilation and standard laboratory hygiene. Do not eat, drink or smoke during handling.
Conditions for safe storage	Store at 2-8 °C in a tightly closed, dry and correctly labelled container. Protect from moisture and light. Ship with blue ice where suitable.
Container labeling	Keep in the original, tightly closed and properly labelled package.

08 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

No substance-specific occupational exposure limit has been identified in the reviewed data. Observe applicable workplace limits for inhalable and respirable dust.

8.2 Exposure controls

Engineering measures	Provide adequate ventilation and local exhaust where dust could be formed. Eyewash and safety shower should be accessible.
Hygiene measures	Wash hands after handling. Avoid eating, drinking or smoking in work areas. Clean work surfaces routinely.
Eye / face protection	Wear safety glasses with side shields or protective goggles, EN 166 or equivalent.
Hand protection	Wear suitable chemical-resistant gloves, such as nitrile, selected for task conditions.
Skin and body protection	Wear a laboratory coat, suitable protective clothing and closed footwear.
Respiratory protection	Normally not required when dust is controlled. If airborne powder is generated, use appropriate local ventilation and particulate respiratory protection.

Material properties

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09 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	White crystalline powder (solid)
Odor	No data available
Odor threshold	No data available
pH	Approximately 5-7 (5% aqueous solution; published substance data)
Melting point / freezing point	Approximately 105 °C (published substance data)
Initial boiling point and boiling range	No data available
Flash point	>110 °C (published data; method not stated)
Evaporation rate	Not applicable to a solid
Flammability (solid, gas)	No data available
Upper / lower flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	Not applicable to a solid
Relative density	No data available
Solubility(ies)	Soluble in water
Partition coefficient: n-octanol / water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Not applicable to a solid
Explosive properties	No data available
Oxidizing properties	Not classified as oxidizing on the available substance data

10 STABILITY AND REACTIVITY

Reactivity	No unusual reactivity established under normal laboratory conditions.
Chemical stability	Stable under recommended handling and storage conditions; hygroscopic.
Possibility of hazardous reactions	No hazardous reactions known under normal handling conditions.
Conditions to avoid	Excess heat, moisture, light exposure and unnecessary airborne dust.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon monoxide, carbon dioxide and sulfur oxides on combustion or thermal decomposition.

Health & environment

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11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	No complete product-specific acute toxicity data available; IPTG substance is not classified for acute toxicity based on the reviewed data.
Skin corrosion / irritation	No data available for the supplied grade; powder may cause temporary irritation.
Serious eye damage / eye irritation	No data available for the supplied grade; dust may cause temporary irritation.
Carcinogenicity	No conclusion for the supplied grade without impurity data. Residual solvent content must be evaluated to determine final classification.
Reproductive toxicity	No data available.
STOT - SE	No data available.
STOT - RE	No data available.
Aspiration hazard	Not applicable to a solid.

11.2 Potential health effects

Ingestion: No product-specific effects established; ingestion may cause discomfort.
Inhalation: Dust may irritate airways.
Skin: Dust may cause temporary irritation.
Eyes: Dust may cause temporary eye irritation.

11.3 Additional information

No additional product-specific toxicological data available. Final hazard assessment requires the verified impurity profile.

12 ECOLOGICAL INFORMATION

Ecotoxicity	No product-specific quantitative data available. Avoid uncontrolled releases into the environment.
Persistence and degradability	No product-specific data available.
Bioaccumulative potential	Bioaccumulation is not expected to be significant based on the reviewed substance information.
Mobility in soil	May be mobile due to water solubility.
Results of PBT and vPvB assessment	No product-specific PBT or vPvB assessment available.

13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Dispose of unused product and contaminated materials as chemical laboratory waste in accordance with relevant local and national regulations. Do not discharge into drains.
Contaminated packaging	Dispose of as chemical waste unless thoroughly cleaned and suitable for recycling under local regulations.

Transport & reference

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14 TRANSPORT INFORMATION

Mode	UN no.	UN proper shipping name	Hazard class	Packing group	Environmental hazards
ADR/RID	-	Not regulated	-	-	No
IMDG	-	Not regulated	-	-	No
IATA	-	Not regulated	-	-	No

15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation	Regulation (EC) No. 1907/2006 (REACH) and Regulation (EC) No. 1272/2008 (CLP). Substance classification based on available IPTG information; check the supplied-grade impurity profile.
Environmental hazards	Not classified as environmentally hazardous on the available substance data.
Chemical safety assessment	No product-specific chemical safety assessment available.

16 OTHER INFORMATION

Key to abbreviations and acronyms

STOT-SE	Specific Target Organ Toxicity - Single Exposure
STOT-RE	Specific Target Organ Toxicity - Repeated Exposure
PBT	Persistent Bioaccumulative and Toxic
vPvB	very Persistent very Bioaccumulative and toxic
ADR	European Agreement concerning the international carriage of Dangerous goods by Road
CAS	Chemical Abstracts Service
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime code for Dangerous Goods
REACH	Registration, Evaluation, Authorization and restriction of Chemicals
RID	Regulations concerning the International transport of Dangerous goods by rail