

Material Safety Data Sheet IPTG for molecular biology

1. Chemical Product & Company Identification

MSDS Name:	IPTG
Catalog Number:	90.5000.XX
Synonymes:	Isopropyl-beta-D-thiogalactopyranoside
CAS Number:	367-93-1
REACH:	The substance does not have a registration number. The annual amount does not require a registration.
Company Identification:	Davids Biotechnologie GmbH Röntgenstraße 3 93055 Regensburg Germany http://www.davids-bio.de
Phone Number:	++49 (0)941 948228

1.2 Identified Uses

Laboratory chemicals, Manufacture of substances

Not for diagnostic or therapeutic use. Not for human use. For research purposes only. This product is not a medical device. Not for use in in vitro diagnostic procedure for clinical diagnosis. Custom tests must be done to determine the ability for a specific use.

2. Composition & Information on Ingredients

2.1 Classification according to Regulation (EC) No 1272/2008

This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.2 Labelling according to Regulation (EC) No 1272/2008

This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.

3. Composition & Ingredients

Synonymes:	Isopropyl β -D-thiogalactoside IPTG
Formula:	$C_9H_{18}O_5S$
Molecular Weight:	238,3 g/mol

According to the applicable regulations no components need to be disclosed.

All chemicals are potentially dangerous and should only be handled by trained personnel. Material from animals may cause allergic reactions.

4. First Aid Measures

General:	The first aiders need to protect themselves. Show this safety datasheet to the doctor in attendance.
In case of inhalation:	After inhalation: fresh air. Call in physician.
In case of skin contact:	Take off immediately all contaminated clothing. Rinse skin with water/ shower.
In case of eye contact:	Rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
In case of swallowing:	Immediately make victim drink water (two glasses at most). Consult a physician.
Important symptoms and effects, both acute and delayed:	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 10
Indication of any immediate medical attention and special treatment needed:	No data available

4. Fire Fighting Measures

Extinguishing Media:	Water, foam or dry extinguishing powder, ABC-Powder
Unsuitable Extinguishing Media:	A solid water stream may be inefficient.
Autoignition Temperature:	No data available
Flash Point:	No data available
Explosion Limits: Lower:	No data available
Explosion Limits: Upper:	No data available
NFPA Rating:	No data available
Fire Fighting Instructions:	As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
Special Hazards arising from the substance:	Carbon Oxides Sulfur Oxides Combustible Hazardous combustion gases or vapours can be developed in the event of a fire

Additional Information: Use a water spray to suppress gases or vapors with a water spray jet. Prevent that the fire extinguishing water contaminates surface water or ground water.

5. Accidental Release Measures

Protective precautions, protective equipment and emergency procedures: Avoid raising and breathing dust, and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

Environmental precautions: Take steps to avoid release into the environment, if safe to do so.

Methods and material for containment and cleaning up: Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

6. Handling and Storage

Handling: Avoid breathing dust, fume, gas, mist, vapors or spray. Avoid prolonged or repeated exposure.

Storage: Keep container tightly closed and dry. Store in accordance with information listed on the product insert.

Hazard Label Information: Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.

Storage Class: TRGS 510: 11: Combustible Solids

Specific end use: The product is for research use only. No other use is stipulated.

7. Exposure Controls, Personal Protection

Control Parameters: Not Available
 National Limit Parameters: Not Available
 Occupational exposure limit values (Work Place Exposure Limits): Not Available

Protective Equipment Summary – Hazard Label Information: Compatible chemical-resistant gloves (Nitril rubber, >0.11 mm thickness, permeation level > 6 (>480 min breakthrough times of glove material)
 Eye wash station in work area
 Lab coat
 Safety glasses
 Safety shower in work area
 Vent Hood

Engineering Controls (Ventilation etc):	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Eye Protection:	Safety glasses
Protective Gloves:	Compatible chemical-resistant gloves
Other Protective Clothing:	Lab coat
Respiratory Equipment (Specify Type):	NIOSH approved respirator, as conditions warrant.
Work, Hygienic and Maintenance Practices:	Do not take internally Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Wash thoroughly after handling.
Environmental Exposure Controls:	Do not let the product enter drains.

8. Physical & Chemical Properties

Physical State:	Solid
Colour:	white
Odour:	Not available
pH:	5 – 7 at 50 g/l
pKa:	13.00 ± 0.70 (predicted)
Vapour Pressure:	Not available
Vapour Density:	Not available
Evaporation Rate:	Not available
Viscosity:	Not available
Boiling Point:	Not available
Freezing/Melting Point:	105°C
Decomposition Temperature:	Not available
Solubility in water:	0.05 g/l
Specific Gravity/Density:	Unknown
Molecular Formula:	Unknown

9. Stability & Reactivity

Reactivity:	No data available
Chemical Stability:	Stable at room temperature
Conditions to Avoid:	Excess heat Oxidizing agents Exposure to moisture
Incompatibilities with other materials:	None reported
Hazardous Decomposition Products:	See section 4 in the event of fire
Hazardous Polymerization:	Has not been reported

10. Toxicological Information

Information on Toxicological Effects:	The toxicological effects of this product have not been thoroughly studied.
Chronic Toxicological Effects:	No data available
Acute toxicity:	Oral: No data available Oral LD(50): > 10000 mg/kg Inhalation: No data available Dermal: No data available
Skin corrosion or irritation:	No data available
Serious eye damage or eye irritation:	No data available
Respiratory or skin sensitization:	No data available
Aspiration hazard:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Specific target organ toxicity – single exposure:	Shall not be classified as single exposure specific target toxicity
Specific target organ toxicity – repeated exposure:	Shall not be classified as repeated exposure specific target toxicity

Additional Information:

No data available. According to our knowledge the chemical, physical and toxicological properties of this component is not determined completely. Even if it is unlikely, we cannot exclude dangerous or hazardous properties of this component. Please follow the usual precautionary actions when using chemicals.

11. Ecological Information

Toxicity:	No data available
Biodegradation:	No data available
Process of degradability:	No data available
Bioaccumulative potential:	No data available
Mobility in soil:	No data available
Results of PBT and vPvB assessment:	The product does not contain components that are considered to be bioaccumulative and toxic (PBT) very persigent and very bioaccumulative (vPvB) at levels of 0.1 % or higher.
Endocrine disrupting properties:	Not listed

Additional Information:

No data available


12. Disposal Considerations

Waste Disposal Method:	Dispose in accordance with local, state, and federal regulations.
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13. Transport Information

Land Transport (US DOT)	
DOT Proper Shipping Name:	Not available.
Land Transport (European ADR/RID)	
ADR/RID Shipping Name:	Not available.
AIR TRANSPORT (ICAO/IATA)	
ICAO/IATA Shipping Name:	Not available.
Additional Transport Information:	Transport in accordance with local, state, and federal regulations The product is not classified as dangerous according of transport regulations.

14. Regulatory Information

European/International Regulations:	
European Labeling in Accordance with EC Directives	
WGK Germany:	1
Hazard Symbols:	
Signal Word:	Warning, Health Hazard
Risk Phrases:	H315: Causes skin irritation H319: Causes serious eye irritation H335: May cause respiratory irritation
Safety Phrases:	P280: Wear protective gloves/protective clothing/eye protection/face protection P302+P352: IF ON SKIN: Wash with 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 continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

15. Further Information

MSDS Creation Date: 02/03/2020

Revision Date: 08/04/2022

Not for diagnostic or therapeutic use. Not for human use. For research purposes only. This product is not a medical device. Not for use in in vitro diagnostic procedure for clinical diagnosis. Custom tests must be done to determine the ability for a specific use.

The information in this data sheet represents the best information that is currently available to us. However we make no warranty of merchantability or any other warranty, express or implied. The person who uses the substances should make their own investigations to determine the suitability of the information for their own use. The company is in no event liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages arising, even if the company has been advised of the possibility of such damages.