

InCl₃

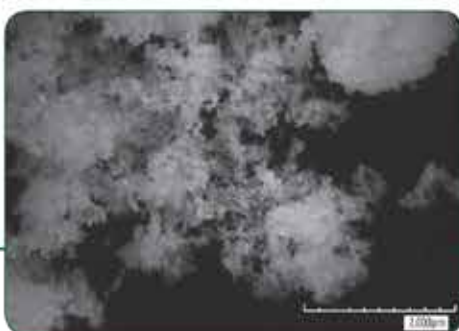
PRODUCT DATA SHEET

IndiTri™ (Indium Trichloride)



Introduction

IndiTri™ (indium trichloride) is a white, odorless, and highly deliquescent powder. Its particles are flake-shaped and highly soluble in water and mineral acids. It is used as a starting chemical for the synthesis of other inorganic and organic indium compounds and as an additive to alkaline batteries to reduce outgassing and improve operational efficiency of the battery when under electrical load. **IndiTri™** is available as an anhydrous powder and as a solution up to its solubility limit.



Properties

	Standard, Type A	High Density, Type H
Description	IndiTri™ is a white, odorless, and highly deliquescent powder. Its particles are highly soluble in water and mineral acids. It is used as a starting chemical for the synthesis of other inorganic and organic indium compounds, and as an additive to alkaline batteries to reduce outgassing and improve operational efficiency of the battery when under electrical load. IndiTri™ is available as an anhydrous powder and as a solution up to its solubility limit.	
Particle Shape/Appearance	Flake shaped	Irregular shaped particles with a glassy, lustrous appearance
Chemical Formula	InCl_3	
Molecular Weight	221.18	
General Description	White deliquescent powder	White, glassy, deliquescent powder
Uses	Chemical synthesis; alkaline battery additive; precursor material for indium-metallorganic compounds such as TMI (tri-methyl-indium)	
Purity Grades Available	4N (99.99%), 5N (99.999%)	
Solubility	66.11g/100g of solution @ 22°C	
Specific Gravity	3.46g/cc solid 1.97g/cc saturated solution	
Apparent Density	0.25–0.4g/cc	1.3–1.45g/cc
Melting Point	586°C (sublimes at 300°C)	
Boiling Point	Volatilizes @ 600°C	
Isomorphous with	AlCl_3 , YCl_3	
Coordination Number	6	
Theoretical Indium Percentage	51.91	
Minimum Indium Percentage	50.5	51.0
Nominal Indium Percentage	50.5–52.5	51.0–52.8

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IndiTri™ (Indium Trichloride) InCl₃

Standard Packaging Powder

Quantity*	Container
1.8kg	3.8-liter plastic
0.5kg	1-liter plastic

Solution

1-liter polyethylene bottles
3.8-liter (1-gallon) polyethylene bottles
18.9-liter (5-gallon) polyethylene bottles

*All package sizes contain suitable desiccant. Packaging in other sizes or in glass may be available upon request.

Storage and Shelf Life

IndiTri™ is highly deliquescent and the solid crystals will liquefy quickly in humid environments. The container should contain a desiccant and the container kept tightly sealed. IndiTri™ has a shelf life of 12 months.

Technical Support

Indium Corporation sets the industry standard in providing rapid response, onsite technical support for our customers worldwide. Indium Corporation's team of Technical Support Engineers can provide expertise in all aspects of materials science.

Safety Data Sheets

The SDS for this product can be found online at <http://www.indium.com/sds>