

Thallium(I) fluoride

Thallium(I) fluoride

Names	
Preferred IUPAC name	Thallium(I) fluoride ^[source?]
Other names	Thallium monofluoride ^[source?] Thallos fluoride ^[source?]
Identifiers	
CAS Number	7789-27-7 ^{check}
3D model (JSmol)	Interactive image
ChemSpider	56426 ⓘ
ECHA InfoCard	100.029.231
EC Number	232-154-1
PubChem CID	62675
RTECS number	XG4900000
CompTox Dashboard (EPA)	DTXSID701027537 Edit this at WIL
SMILES	<div>F[Tl]</div>
Properties	
Chemical formula	TlF ^{2•}
Molar mass	223.3817 g/mol
Appearance	White crystals
Density	8.36 g cm ^{−3}
Melting point	327 °C (621 °F; 600 K)
Boiling point	655 °C (1,211 °F; 928 K) (decompo
Solubility in water	78.6 g/100 mL (at 15 °C) ^[1]
Solubility	slightly soluble in ethanol
Magnetic susceptibility (χ)	$-44.4\cdot10^{-6}$ cm ³ /mol
Structure	
Crystal structure	Orthorhombic , oP8
Space group	Fmmm, No. 28
Hazards	
EU classification	Very Toxic T+ Dangerous for the E
R-phrases	R26/28 , R33 , R51/53
S-phrases	S13 , S28 , S45 , S61 ^[2]
Related compounds	
Other anions	<div>{{{value}}}</div>

Other [cations](#)

{{{value}}}

Except where otherwise noted, data are given for materials in their [standard state](#) (at 2

⊠ [verify](#) ([what is](#) ^{check}⊠ ?)

[Infobox references](#)

Thallium(I) fluoride, also known as **thallous fluoride**, is a [chemical compound](#). Its chemical formula is TlF. It has [thallium](#) and [fluoride ions](#). The thallium is in its +1 [oxidation state](#).

Properties

[[change](#) | [change source](#)]

Thallium(I) fluoride is a white solid. It dissolves easily in water. It also dissolves in [ethanol](#). It absorbs a little water in wet air.

Preparation

[[change](#) | [change source](#)]

It is made by reacting [thallium\(I\) oxide](#) or [thallium\(I\) carbonate](#) with [hydrofluoric acid](#).

Related pages

[[change](#) | [change source](#)]

- [Thallium\(III\) oxide](#)
- [Thallium\(I\) chloride](#)

References

[[change](#) | [change source](#)]

- ↑ Perry, Dale L.; Phillips, Sidney L. (1995), *Handbook of Inorganic Compounds*, CRC Press, p. 407, [ISBN 0-8493-8671-3](#), retrieved 2008-06-17
- ↑ "[399833 Thallium\(I\) fluoride 99%](#)". Sigma-Aldrich. Retrieved 2008-06-17.

Fluorine compounds

- [v](#)
- [t](#)
- [e](#)

HF

LiF

BeF₂

F⁻

[illegible]

	<ul style="list-style-type: none"> • KPF₆ • KSbF₆ • LiPF₆ • NaPF₆ • NaSbF₆ • TlPF₆ 	
AlF₆⁻ compounds	<ul style="list-style-type: none"> • Cs₂AlF₅ • K₃AlF₆ • Na₃AlF₆ 	
chlorides, bromides, iodides and pseudohalogenides	<ul style="list-style-type: none"> • BaClF • CFN • ClFO₂ 	
SiF₆²⁻, GeF₆²⁻ compounds	<ul style="list-style-type: none"> • BaSiF₆ • BaGeF₆ • (NH₄)₂SiF₆ • Na₂[SiF₆] • K₂[SiF₆] 	
Oxyfluorides	<ul style="list-style-type: none"> • BrOF₃ • BrO₂F • BrO₃F • LaOF • ThOF₂ • VOF₃ • TcO₃F • WOF₄ • YOF • ClOF₃ • ClO₂F₃ 	
Organofluorides	<ul style="list-style-type: none"> • CBrF₃ • CBr₂F₂ • CBr₃F • CClF₃ • CCl₂F₂ • CCl₃F 	

	<ul style="list-style-type: none"> • CF₂O • CF₃I • CHF₃ • CH₂F₂ • CH₃F • C₂Cl₃F₃ • C₂H₃F • C₆H₅F • C₇H₅F₃ • C₁₅F₃₃N • C₃H₅F • C₆H₁₁F
with transition metal, lanthanide, actinide, ammonium	<ul style="list-style-type: none"> • VOF₃ • CrOF₄ • CrF₂O₂ • NH₄F • Na₂TiF₆ • Na₂ZrF₆ • K₂NbF₇ • K₂TaF₇ • UO₂F₂
nitric acids	<ul style="list-style-type: none"> • FNO • FNO₂ • FNO₃
bifluorides	<ul style="list-style-type: none"> • KHF₂ • NaHF₂ • NH₄HF₂
thionyl, phosphoryl, and iodosyl	<ul style="list-style-type: none"> • E₂OS • E₃OP • PSE₃ • IOF₃ • IO₃F • IOF₅ • IO₂F



Chemical formulas

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