$TaS_2[NH_3]$	*hP*8	(186) $P6_3mc$ – b^2a^2

$TaS_2 \cdot NH_3$ [1]
Structural features: Directly superposed close-packed S layers; Ta and NH_3 in trigonal prismatic voids (stacking sequence AbA β AcA γ). TaS_6 trigonal prisms share edges to form infinite slabs; NH_3 in trigonal prismatic voids between the slabs.

Chianelli R.R. et al. (1975) [1]
H_3NS_2Ta
a = 0.332, c = 1.816 nm, c/a = 5.470, V = 0.1733 nm^3, Z = 2

site	Wyck.	sym.	x	y	z	occ.	atomic environment
Ta1	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.087		trigonal prism S_6
$(NH_3)2$	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.337		anticuboctahedron $(NH_3)_6S_6$
S3	2*a*	3*m*.	0	0	0.0		non-coplanar triangle Ta_3
S4	2*a*	3*m*.	0	0	0.174		non-coplanar triangle Ta_3

Transformation from published data ($P6_3mc$ *): origin shift $^1/_3$ $^2/_3$ 0.663
Experimental: powder, diffractometer, X-rays, R_B = 0.208

Remarks: In [1] the origin of the cell is shifted by $^1/_3$ $^2/_3$ 0 from the description in the International Tables for Crystallography. Hydrogen atoms are not taken into consideration for Pearson symbol, Wyckoff sequence and atomic environments. In fig. 4 of [1] the Hermann-Mauguin symbol for the space group is misprinted as $P6_3/mmc$ instead of $P6_3mc$.

References: [1] Chianelli R.R., Scanlon J.C., Whittingham M.S., Gamble F.R. (1975), Inorg. Chem. 14, 1691-1696.