The group G is isomorphic to the group labelled by [336, 208] in the Small Groups library.
Ordinary character table of $G \cong \mathrm{PSL}(3,2) : C2$:

	1a	2a	3a	4a	7a	2b	6a	8a	8b
χ_1	1	1	1	1	1	1	1	1	1
χ_2	1	1	1	1	1	-1	-1	-1	-1
χ_3	6	-2	0	2	-1	0	0	0	0
χ_4	6	2	0	0	-1	0	0	$E(8)-E(8)^3$	$-E(8)+E(8)^3$
χ_5	6	2	0	0	-1	0	0	$-E(8)+E(8)^3$	$E(8)-E(8)^3$
χ_6	7	-1	1	-1	0	1	1	-1	-1
χ_7	7	-1	1	-1	0	-1	-1	1	1
χ_8	8	0	-1	0	1	2	-1	0	0
χ_9	8	0	-1	0	1	-2	1	0	0

Trivial source character table of $G \cong \mathrm{PSL}(3,2) : C2$ at $p = 3$:

Normalisers N_i	N_1							N_2			
p-subgroups of G up to conjugacy in G	P_1							P_2			
Representatives $n_j \in N_i$	1a	2b	7a	2a	8a	8b	4a	1a	2c	2b	2a
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9$	9	3	2	1	1	1	1	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9$	9	-3	2	1	-1	-1	1	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	6	0	-1	-2	0	0	2	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	6	0	-1	2	$E(8)-E(8)^3$	$-E(8)+E(8)^3$	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	6	0	-1	2	$-E(8)+E(8)^3$	$E(8)-E(8)^3$	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9$	15	3	1	-1	-1	-1	-1	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9$	15	-3	1	-1	1	1	-1	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	1	1	1	1	1	1	1	1	1	1	1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	7	-1	0	-1	1	1	-1	1	-1	1	-1
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	1	-1	1	1	-1	-1	1	1	1	-1	-1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	7	1	0	-1	-1	-1	-1	1	-1	-1	1

$P_1 = Group([()]) \cong 1$
$P_2 = Group([(3, 6, 4)(5, 7, 8)]) \cong C3$

$N_1 = Group([(2, 4)(3, 5)(7, 8), (1, 2, 3)(4, 6, 7)]) \cong \mathrm{PSL}(3,2) : C2$
$N_2 = Group([(3, 6, 4)(5, 7, 8), (1, 2)(4, 6)(5, 8), (1, 2)(3, 5)(4, 7)(6, 8)]) \cong D12$