The group G is isomorphic to the group labelled by [24, 12] in the Small Groups library.
Ordinary character table of $G \cong$ S4:

	$1a$	$2a$	$3a$	$2b$	$4a$
χ_1	1	1	1	1	1
χ_2	1	1	1	−1	−1
χ_3	2	2	−1	0	0
χ_4	3	−1	0	1	−1
χ_5	3	−1	0	−1	1

Trivial source character table of $G \cong$ S4 at $p = 3$:

Normalisers N_i	N_1				N_2	
p-subgroups of G up to conjugacy in G	P_1				P_2	
Representatives $n_j \in N_i$	$1a$	$2b$	$2a$	$4a$	$1a$	$2a$
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5$	3	1	3	1	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5$	3	−1	3	−1	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5$	3	1	−1	−1	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5$	3	−1	−1	1	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5$	1	1	1	1	1	1
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5$	1	−1	1	−1	1	−1

$P_1 = Group([()]) \cong 1$
$P_2 = Group([(1,9,3)(2,13,6)(4,23,11)(5,17,19)(7,24,15)(8,20,22)(10,12,18)(14,16,21)]) \cong$ C3

$N_1 = Group([(1,2)(3,13)(4,8)(5,7)(6,9)(10,21)(11,20)(12,16)(14,18)(15,17)(19,24)(22,23), (1,3,9)(2,6,13)(4,11,23)(5,19,17)(7,15,24)(8,22,20)(10,18,12)(14,21,16), (1,4)(2,7)(3,10)(5,12)(6,14)(8,16)(9,17)(11,19)(13,20)(15,22)(18,23)(21,24), (1,5)(2,8)(3,11)(4,12)(6,15)(7,16)(9,18)(10,19)(13,21)(14,22)(17,23)(20,24)]) \cong$ S4
$N_2 = Group([(1,9,3)(2,13,6)(4,23,11)(5,17,19)(7,24,15)(8,20,22)(10,12,18)(14,16,21), (1,2)(3,13)(4,8)(5,7)(6,9)(10,21)(11,20)(12,16)(14,18)(15,17)(19,24)(22,23)]) \cong$ S3