Fundamental field	Symmetries	Decomposition into SO(3) irrep(s)	Source
$h_{\alpha\beta\chi}$	Symmetry[3, $h^{\bullet 1 \bullet 2 \bullet 3}$ , $\{ \bullet 1 \rightarrow -a, \bullet 2 \rightarrow -b, \bullet 3 \rightarrow -c \}$ , StrongGenSet[{1, 2, 3}, GenSet[(1,2), (2,3)]]]	$h_{3^{-}\alpha\beta\chi}^{\#1} + \frac{1}{15} \eta_{\beta\chi} h_{1^{-}\alpha}^{\#2} + \frac{1}{15} \eta_{\alpha\chi} h_{1^{-}\beta}^{\#2} + \frac{1}{15} \eta_{\alpha\beta} h_{1^{-}\chi}^{\#2} + \frac{1}{9} \eta_{\beta\chi} h_{0^{+}}^{\#2} n_{\alpha} + \frac{1}{3} h_{2^{+}\beta\chi}^{\#1} n_{\alpha} + \frac{1}{3} h_{2^{+}\alpha\chi}^{\#1} n_{\beta} - \frac{1}{15} h_{1^{-}\chi}^{\#2} n_{\alpha} n_{\beta} + \frac{1}{3} h_{1^{-}\chi}^{\#1} n_{\alpha} n_{\beta} + \frac{1}{9} \eta_{\alpha\beta} h_{0^{+}}^{\#2} n_{\chi} + \frac{1}{3} h_{2^{+}\alpha\beta}^{\#1} n_{\chi} - \frac{1}{3} h_{1^{-}\beta}^{\#2} n_{\alpha} n_{\chi} + \frac{1}{3} h_{1^{-}\beta}^{\#1} n_{\alpha} n_{\chi} - \frac{1}{15} h_{1^{-}\alpha}^{\#2} n_{\beta} n_{\chi} + \frac{1}{3} h_{1^{-}\alpha}^{\#1} n_{\beta} n_{\chi} + h_{0^{+}}^{\#1} n_{\alpha} n_{\beta} n_{\chi} + h_{0^{+}}^{\#1} n_{\alpha} n_{\beta} n_{\chi}$	${\cal F}_{lphaeta\chi}$
SO(3) irrep	Symmetries	Expansion in terms of the fundamental field	Source SO(3) irrep
$h_{0+}^{\#1}$	Symmetry[0, $h_0^{#1}$ , {}, StrongGenSet[{}, GenSet[]]]	$h_{\alpha\beta\chi} n^{\alpha} n^{\beta} n^{\chi}$	$\mathcal{F}_{0}^{#1}$
h <sub>0</sub> <sup>#2</sup>	Symmetry[0, $h_0^{#2}$ , {}, StrongGenSet[{}, GenSet[]]]	$3 h_{\alpha \beta}^{\beta} n^{\alpha} - 3 h_{\alpha \beta \chi} n^{\alpha} n^{\beta} n^{\chi}$	$\mathcal{F}_{0}^{#2}$
$h_{1-\alpha}^{\#1}$	Symmetry[1, $h_1^{\#1} \bullet 1$ , $\{ \bullet 1 \rightarrow -a \}$ , StrongGenSet[ $\{ \}$ , GenSet[]]]	$3 h_{\alpha\beta\chi} n^{\beta} n^{\chi} - 3 h_{\beta\chi\delta} n_{\alpha} n^{\beta} n^{\chi} n^{\delta}$	$\mathcal{F}_{1-\alpha}^{\sharp 1}$
$h_{1-\alpha}^{\#2}$	Symmetry[1, $h_1^{\#2} \bullet 1$ , $\{ \bullet 1 \rightarrow -a \}$ , StrongGenSet[ $\{ \}$ , GenSet[]]]	$3 h_{\alpha\beta}^{\beta} - 3 h_{\beta\chi}^{\chi} n_{\alpha} n^{\beta} - 3 h_{\alpha\beta\chi} n^{\beta} n^{\chi} + 3 h_{\beta\chi\delta} n_{\alpha} n^{\beta} n^{\chi} n^{\delta}$	$\mathcal{F}_{1-\alpha}^{\#2}$
$h_{2}^{\#1}{}_{\alpha\beta}$	Symmetry[2, $h_{2+}^{\#1} \bullet 1 \bullet 2$ , $\{ \bullet 1 \rightarrow -a, \bullet 2 \rightarrow -b \}$ , StrongGenSet[ $\{ 1, 2 \}$ , GenSet[ $( 1, 2 )$ ]]]	$3 h_{\alpha\beta\chi} n^{\chi} - \eta_{\alpha\beta} h_{\chi\delta}^{\delta} n^{\chi} + h_{\chi\delta}^{\delta} n_{\alpha} n_{\beta} n^{\chi} - 3 h_{\beta\chi\delta} n_{\alpha} n^{\chi} n^{\delta} - 3 h_{\alpha\chi\delta} n_{\beta} n^{\chi} n^{\delta} + \eta_{\alpha\beta} h_{\chi\delta\epsilon} n^{\chi} n^{\delta} n^{\epsilon} + 2 h_{\chi\delta\epsilon} n_{\alpha} n_{\beta} n^{\chi} n^{\delta} n^{\epsilon}$	${\mathcal F}_{2}^{\sharp 1}{}_{lphaeta}$
h <sup>#1</sup> <sub>3</sub> - <sub>αβχ</sub>	Symmetry[3, $h_3^{\#1} \bullet 1 \bullet 2 \bullet 3$ , $\{ \bullet 1 \rightarrow -a, \bullet 2 \rightarrow -b, \bullet 3 \rightarrow -c \}$ , StrongGenSet[{1, 2, 3}, GenSet[(1,2), (2,3)]]]	$h_{\alpha\beta\chi} - \frac{1}{5} \eta_{\beta\chi} h_{\alpha\delta}^{\ \delta} - \frac{1}{5} \eta_{\alpha\chi} h_{\beta\delta}^{\ \delta} - \frac{1}{5} \eta_{\alpha\beta} h_{\chi\delta}^{\ \delta} + \frac{1}{5} h_{\chi\delta}^{\ \delta} n_{\alpha} n_{\beta} + \frac{1}{5} h_{\beta\delta}^{\ \delta} n_{\alpha} n_{\chi} + \frac{1}{5} h_{\alpha\delta}^{\ \delta} n_{\beta} n_{\chi} - h_{\beta\chi\delta} n_{\alpha} n^{\delta} + \frac{1}{5} \eta_{\beta\chi} h_{\delta\epsilon}^{\ \epsilon} n_{\alpha} n^{\delta} - h_{\alpha\beta\delta} n_{\chi} n^{\delta} + \frac{1}{5} \eta_{\alpha\beta} h_{\delta\epsilon}^{\ \epsilon} n_{\chi} n^{\delta} - \frac{3}{5} h_{\delta\epsilon}^{\ \epsilon} n_{\alpha} n_{\beta} n_{\chi} n^{\delta} + \frac{1}{5} \eta_{\beta\chi} h_{\alpha\delta\epsilon} n^{\delta} n^{\epsilon} + \frac{1}{5} \eta_{\alpha\beta} h_{\chi\delta\epsilon} n^{\delta} n^{\epsilon} + \frac{4}{5} h_{\chi\delta\epsilon} n_{\alpha} n_{\beta} n^{\delta} n^{\epsilon} + \frac{4}{5} h_{\beta\delta\epsilon} n_{\alpha} n_{\chi} n^{\delta} n^{\epsilon} + \frac{4}{5} h_{\alpha\delta\epsilon} n_{\beta} n_{\chi} n^{\delta} n^{\epsilon} - \frac{1}{5} \eta_{\alpha\chi} h_{\delta\epsilon\phi} n_{\alpha} n^{\delta} n^{\epsilon} n^{\epsilon} + \frac{4}{5} h_{\chi\delta\epsilon} n_{\alpha} n_{\beta} n^{\delta} n^{\epsilon} n^{\epsilon} + \frac{4}{5} h_{\beta\delta\epsilon} n_{\alpha} n_{\chi} n^{\delta} n^{\epsilon} n^{\epsilon} + \frac{4}{5} h_{\alpha\delta\epsilon} n_{\beta} n_{\chi} n^{\delta} n^{\epsilon} - \frac{1}{5} \eta_{\alpha\chi} h_{\delta\epsilon\phi} n_{\beta} n^{\delta} n^{\epsilon} n^{\epsilon} n^{\delta} - \frac{1}{5} \eta_{\alpha\beta} h_{\delta\epsilon\phi} n_{\chi} n^{\delta} n^{\epsilon} n^{\epsilon} n^{\delta} n^{\delta}$	${\mathcal F}_{3^{-}\ lphaeta\chi}^{\sharp 1}$