



# American International Chemical, Inc.

Corporate Offices: (800) 238-0001

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## SPECIFICATION SHEET

### COPPER TRI-PEPTIDE

Code No.	SCN No.	CAS No.	Effective Date	Product Manager	Rev. No.	Approved By
CTPGIP	C2998	49557-75-7	May 18, 2011	SJW	Original	MPR

<b>CHARACTERISTICS:</b>	Copper tri-peptide is an ultra fine brilliant blue or bluish green crystalline powder that is water soluble.
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<b>SPECIFICATIONS:</b>	Appearance	Fire brilliant blue or bluish green crystalline powder
	Identification by HPLC	To pass test
	Aqueous solubility 5% (w/v) at 20° C	Meets requirements

<b>STOCKING POINTS:</b>	Farmingdale, NJ
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<b>PACKAGING:</b>	10 kilo drums
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<b>APPLICATIONS:</b>	Can be used in anti-aging, skin repair, wound healing, anti-inflammatory skin care applications. Can also be used in hair restorative and anti-hair loss products.
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<b>SHELF LIFE AND STORAGE INSTRUCTIONS:</b>	Store in a well-closed container at a temperature not exceeding 25°C (77°F), protected from direct sunlight and moisture.
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<b>OTHER:</b>	Copper Tri-peptide is a peptide complex that contains: glycine, arginine, and aspartate. Copper Tri-peptide provides tri-cellular functionality: 1) core anti-aging function by repair of photo-damage to the skin; 2) rapid wound healing by increasing cell turnover; and 3) intensive humectant property by innovative bionic scaffolding (restoration of normal tissue morphology). Copper Tri-peptide helps to stimulate extracellular matrix proteins (collagen, elastin, and fibronectin) which leads to a decrease in skin wrinkling and skin sagging by actively generating new skin cells. In addition, Copper Tri-peptide helps to prevent hair loss and helps to strengthen hair follicles by increasing blood circulation to the scalp and to the hair follicles by elevating the production of vascular endothelial growth factor (VEGF) by dermal fibroblasts. Copper is a vital co-factor in the activation of the powerful anti-oxidant enzyme superoxide dismutase. Superoxide dismutase is an enzyme that repairs cells and reduces the damage done to them by superoxide, the most common free radical in the body.
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<b>OTHER:</b> (Continued)	Superoxide dismutase is found in both the dermis and the epidermis, and is necessary for the production of healthy fibroblasts (skin rebuilding cells). By neutralizing superoxide, superoxide dismutase will help to prevent wrinkles, skin inflammation, and precancerous cell changes. As we age, superoxide levels increase while superoxide dismutase levels drop. Published scientific studies indicate that dermal fibroblasts treated with Copper Tri-peptide secreted less TGF-beta 1 (Transforming Growth Factor – Beta 1) than did controls, suggesting a possible clinical use for Copper Tri-peptide in decreasing excessive scar formation.
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