

PRODUCT SPECIFICATION: SPE. 0008

Section 1 – GENERAL											
Product Name:	Tiger Copper										
Description:	Tiger Copper is a high analysis granular degradable sulphur product that can be used both as a source of plant nutrient sulphur and / or as a soil amendment for correction of problem alkali soils. Yearly applications of Tiger Copper will improve soil sulphur levels as well as loss associated with nutrients that are soluble. Tiger Copper is a unique, high analysis sulphur fertilizer that delivers agronomically and economically, and provides excellent handling characteristics.										
Physical Properties:	<p>Colour: Grey Black pastilles</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Fertilizer Prill Size</td> <td style="text-align: right;">260 SGN</td> </tr> <tr> <td>Angle of Repose</td> <td style="text-align: right;">29 Degrees</td> </tr> <tr> <td>Breakage Test (% Fines Produced)</td> <td style="text-align: right;"><0.5%</td> </tr> <tr> <td>Specific Gravity</td> <td style="text-align: right;">2.07g/ml</td> </tr> <tr> <td>Package Sizing or 1000 kg bulk bag</td> <td style="text-align: right; vertical-align: bottom;">25 kg bag</td> </tr> </table>	Fertilizer Prill Size	260 SGN	Angle of Repose	29 Degrees	Breakage Test (% Fines Produced)	<0.5%	Specific Gravity	2.07g/ml	Package Sizing or 1000 kg bulk bag	25 kg bag
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Toxicity:	Sulphur is moderately toxic (Rating 3 according to "Clinical Toxicology of Commercial Products") with a probable lethal dose to humans of 0.5 to 5 g/kg body mass.										
Hazards:	The material may burn when exposed to heat and flames, emitting toxic fumes of oxides of sulphur. The dust presents a dangerous explosion hazard if suspended in the atmosphere. May cause severe eye irritation as well as irritation to the skin and respiratory tract.										

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Special Precautions:	Store away from heat, naked flames and oxidising agents such as ammonium nitrate. Maintain stringent dust control procedures to prevent concentrated flammable dusts from reaching a spark or flame source. Avoid extensive use of augers due to fracturing of the product.																		
Statutory Aspects:	<p>Occupational Health and Safety Act, No 85 of 1993. Not regulated as hazardous material</p> <p>Maximum Levels of Potentially Harmful Elements (according to act 36 of 1947)</p> <table border="1" data-bbox="715 976 1182 1314"> <thead> <tr> <th>Element</th> <th>Mg/kg</th> </tr> </thead> <tbody> <tr> <td>Cadmium</td> <td>20</td> </tr> <tr> <td>Chromium</td> <td>1750</td> </tr> <tr> <td>Mercury</td> <td>10</td> </tr> <tr> <td>Nickel</td> <td>200</td> </tr> <tr> <td>Lead</td> <td>400</td> </tr> <tr> <td>Zinc</td> <td>2750</td> </tr> <tr> <td>Arsenic</td> <td>20</td> </tr> <tr> <td>Selenium</td> <td>15</td> </tr> </tbody> </table>	Element	Mg/kg	Cadmium	20	Chromium	1750	Mercury	10	Nickel	200	Lead	400	Zinc	2750	Arsenic	20	Selenium	15
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Section 2 – SPECIFICATION

Appearance	Grey to black pastilles
Mean Particle Size	2.4 – 3.2 mm
Uniformity Index	Not less than 50%
Micronutrient Content Copper	12% ± 0.6%

Section 3 – PLANT EVALAUTION AND USES

The nutrient copper oxide are weighed and fed into a mix tank. In the mix tank the solid particles are mixed with molten sulphur at predetermined recipes.

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Section 4 – PURCHASING AND SUPPLIER SPECIFICATION

The material is available in 1000kg and 25kg bags conforming to the most recent issue of Chemical Initiatives Packaging Specification No. RMS.PAK0022 and RMS.PAK0023 respectively.

Section 5 – TESTING

The material is sampled and tested according to the most recent editions of the Sampling, Testing and Reporting Schedule.

<u>PARAMETER</u>	<u>METHOD NO.</u>
3.1 Burn Test	Burn Test Procedure no. 8 (Tiger Industries)
3.2 Particle size tests	AECI G 01/4A
3.3 Micronutrient Content	Umbog No. 161

This product is manufactured and tested at Chemical Initiatives Umbogintwini Factory.

Section 6 – USES

Tiger Copper is used as a source of plant nutrient sulphur.
Tiger Copper is used for soil amendment for correction of problem alkali soils.

Section 7 – DOCUMENTATION

This specification is based on information from Tiger- SUL (USA and Canada) and Chemical Initiatives Umbogintwini Factory.

Section 8 – REASON FOR REVISION

Revision 1 – new document
Revision 2 August 2013 – New template
Revision 3 – Included maximum levels of potentially harmful levels elements