

APPENDIX 1: NanoRiskCat●●●|●● Template

Literature methodology/sources of information

The following sources of information were used to fill out the NanoRiskCat●●●|●● for nanoCu:

1. Stone V, Hankin S, Aitken R, Aschberger K, Baun A, Christensen F, Fernandes T, Hansen SF, Hartmann NB, Hutchinson G, Johnston H, Micheletti G, Peters S, Ross B, Sokull-Kluettgen B, Stark D, Tran L. 2009. Engineered Nanoparticles: Review of Health and Environmental Safety (ENRHES). Available at: <http://nmi.jrc.ec.europa.eu/project/ENRHES.htm> (Accessed July 15, 2010)

Human hazard profile

1. **HARN: Does the nanomaterial fulfill the HARN paradigm?**

Answer: No

Arguments and explanation: To the best of our knowledge, nanoCu particles do not fulfill HARN

2. **Bulk – “Level A CLP”: Is the bulk form of the nanomaterial known to cause or may cause serious damaging effects?**

Answer: Yes

Arguments and explanation: CuO and C₂O is classified as minimum Acute Toxic 4 in the Annex VI of Regulation (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

3. **Overall evaluation of human hazard**

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We conclude that the color-code that best reflects the human hazard profile of nanoCu is ● based on bulk CLP classification 1-4 for acute toxicity

Environment hazard profile

1. Bulk – “Level A CLP”: Is the bulk form of the nanomaterial classified as CLP Acute 1 or Chronic 1 or Chronic 2?

Answer: Yes

Arguments and explanation: CuO is classified as Aquatic Acute 1 as well as Aquatic Chronic 1 in the Annex VI of Regulation (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

2. Overall evaluation of environmental hazard

We conclude that the color-code that best reflects the environmental hazard profile of nanoCu is ● based on bulk CLP classification of Acute 1 or Chronic 1 or Chronic 2