

Evaluation Report for Category B.1.1,B.1.3 Application

Application Number: 2010-0434
Application: New Source(site) same registrant,Specifications
Product: Triangle Brand Cupric Sulphate Pentahydrate Technical
Registration Number: 23811
Active ingredients (a.i.): Copper As Elemental (Present As Copper Sulphate) [CUS]
PMRA Document Number : 2228671

Purpose of Application

Freeport-Mcmoran Sierrita Inc. submitted an application to replace the registered site with a new site that uses a new manufacturing method and to update the guarantee from minimum to nominal for Triangle Brand Cupric Sulphate Pentahydrate Technical.

Chemistry Assessment

Common Name: Copper sulfate pentahydrate
IUPAC Chemical Name: Copper sulfate pentahydrate
 Copper(II) tetraoxosulfate pentahydrate
 Copper(2+) tetraoxosulfate pentahydrate
 Cupric sulfate pentahydrate
CAS Chemical Name: Sulfuric acid copper(2+) salt (1:1), hydrate (1:5)

Triangle Brand Cupric Sulphate Pentahydrate Technical has the following properties:

Property	Result
Colour and physical state	Blue solid
Nominal concentration	25.84% copper, present as copper sulphate pentahydrate
Odour	Odourless
Density	2.284 g/mL (at 20°C)
Vapour pressure	Non-volatile
pH	Not applicable
Solubility in water	831 g/L
n-Octanol/water partition coefficient	Not applicable

The chemistry requirements for Triangle Brand Cupric Sulphate Pentahydrate Technical have been completed.

Health Assessments

The replacement of the currently registered product with a new source and manufacturing

process is not expected to significantly alter the hazard profile relative to currently registered copper sources.

A review of the specification forms was conducted in the framework of this submission, and it is concluded that there is no change in the dietary exposure.

A human health exposure review was completed for Freeport – McMoRan Sierrita Inc’s Triangle Brand Cupric Sulphate Pentahydrate Technical, containing 99.0% of cupric sulphate pentahydrate or 25.84% as metallic copper equivalent to support continued use on terrestrial food crops, in potable and non-potable water bodies, and in swimming pools. The amendment of the currently registered product to a new source of product (containing the noted impurities) and new manufacturing process are not expected to result in increased exposure to contaminants to mixers/loaders, applicators, post-application workers, to bystanders, and residential users above levels found in currently registered copper containing products.

Environmental Assessment

An environmental assessment was required due to the presence of TSMP track 2 contaminants in the new source. However, the use of the new source in registered product is not expected to increase environmental risk as compared to the previously registered source. Environmental risks are mitigated on existing labels.

Value Assessment

No value assessment was required for this application.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of information available in support of Triangle Brand Cupric Sulphate Pentahydrate Technical and has found the information sufficient to support the replacement the registered site with a new site that uses a new manufacturing method and to updated guarantee from minimum to nominal.

References

PMRA Document Number	Reference
1853966	2009, Manufacturing Summary, DACO: 2.11.1 CBI
1853967	2009, Description of Starting Materials, DACO: 2.11.2 CBI
1853968	2009, Detailed Production Process Description, DACO: 2.11.3 CBI
1853969	2009, Discussion of Formation of Impurities, DACO: 2.11.4 CBI
1853970	2009, Establishing Certified Limits, DACO: 2.12.1 CBI
1853971	2009, Methodology/Validation, DACO: 2.13.1 CBI
1853972	2009, Confirmation of Identity, DACO: 2.13.2 CBI
1853973	2009, Batch Data, DACO: 2.13.3 CBI

1853975 2009, Impurities of Toxicological Concern, DACO: 2.13.4 CBI
1853976 2009, Colour, DACO: 2.14.1 CBI
1853977 2009, Physical State, DACO: 2.14.2 CBI
1853978 2009, Odour, DACO: 2.14.3 CBI
1853979 2009, Melting Point/Melting Range, DACO: 2.14.4 CBI
1853980 2009, Density or Specific Gravity, DACO: 2.14.6 CBI
1853981 2009, Water Solubility (mg/L), DACO: 2.14.7 CBI
1853982 2009, Solvent Solubility (mg/L), DACO: 2.14.8 CBI
1853983 2009, Vapour Pressure, DACO: 2.14.9 CBI
1853984 2009, Dissociation Constant, DACO: 2.14.10 CBI
1853985 2009, Octanol/Water Partition Coefficient, DACO: 2.14.11 CBI
1853986 2009, UV/Visible Absorption Spectra, DACO: 2.14.12 CBI
1853987 2009, Stability (Temperature/Metals), DACO: 2.14.13 CBI
1853988 2009, Storage Stability Data, DACO: 2.14.14 CBI
1853989 2009, Sample of analytical standards and residues of concern, DACO: 2.15
1853990 2009, Storage stability and corrosion characteristics of copper sulphate
pentahydrate, DACO: 2.14.14
2057028 2011, 5 batch analysis results for PCP# 23811, DACO: 2.13.4 CBI

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