INITIAL REVIEW ENGINEERING REPORT CBI: Sanitized
PMN: 05-0722 P05-0723, P05-0724, P05-0725
Standard Review Draft 10/21/2005

ENGINEER: Austin \ DDH
PV (kg/yr):

Revision Notes / Assessment Overview:

SUBMITTER:

USE:

OTHER USES:

MSDS: Label:

CRSS (09/15/2005):
Chemical Name:
S-H20: g/L @
VP: torr @
MW: %<500 %<1000
Physical State and Misc CRSS Info:
Neat: ; Mfg: ; Proc/Form: ; End Use:

Consumer Use: No

SAT (concerns) (09/16/2005): Related Cases and Related Cases and Misc SAT Info:
Migration to groundwater: Negligible
PBT rating: P1B1T1 .
Health: 1-2 Dermal, Inhalation
Eco: 3 No releases to Water

OCCUPATIONAL EXPOSURE RATING: 1A

NOTES & KEY ASSUMPTIONS:

POLLUTION PREVENTION CONSIDERATIONS:

EXPOSURE-BASED REVIEW:
Manufacturing

Number of Sites/ Location:
Days/yr:
Basis:

Process Description:

ENVIRONMENTAL RELEASES ESTIMATE SUMMARY
IRER Note: The daily releases listed for any source below may coincide with daily releases from the other sources to the same medium.

RELEASE TOTAL

OCCUPATIONAL EXPOSURES ESTIMATE SUMMARY
Tot. # of workers exposed via assessed routes:
Basis:

Inhalation:

Dermal:

Use:

Number of Sites/ Location:
Days/yr:
Basis:

Process Description:

ENVIRONMENTAL RELEASES ESTIMATE SUMMARY
IRER Note: The daily releases listed for any source below may coincide with daily releases from the other sources to the same medium.

OCCUPATIONAL EXPOSURES ESTIMATE SUMMARY
Tot. # of workers exposed via assessed routes:
Basis:

Inhalation:

Dermal:

STRUCTURE ACTIVITY TEAM REPORT

CASE NUMBER: P05-0722

RELATED CASES:

CONCLUSIONS/DISCUSSIONS

TYPE OF CONCERN:	HEALTH	ECOTOX
LEVEL OF CONCERN:	1-2	3

KEYWORDS:

LUNG
IMMUNO
MUTA
ALGAL SHADING

SUMMARY OF ASSESSMENT

FATE: Solid
S (mg/L, 25□C) = Disp(ICB); H < 1.00E-8(E)
BP (C) > 400(E); VP @ 25C (mm) < 1.0E-6(E)
POTW removal (%) = 90 via sorption
Hydrolysis Halflife = hr-da (to form)
Time for complete ultimate aerobic biodeg > mo
PBT Potential: PMN P1B1T1;Rxn Pdt of P3B1T1
Sorption to soils/sediments = v.strong
*CEB FATE: Migration to ground water = negl

HEALTH: Absorption is nil all routes based on physical/chemical properties. There is concern for mutagenicity based on the submitted studies showing positive responses in E coli and the mouse lymphoma assay. There is also concern for lung effects if respirable particles are inhaled based on lung overload. The PMN material may contain some particles that are in the nanometer range. particles also have some concern for immunotoxicity.
*CEB HEALTH: Low moderate concern (Inhalation only).

TOXICITY DATA: negative in Salmonella
positive in E coli
positive in mouse lymphoma assay
acute oral study in rats - no deaths or signs of toxicity at 500 mg/kg, the one male given 2000 mg/kg was found dead on day 2
minimal eye irritant
not a dermal irritant

ECOTOX: Predicted (P) and measured (M) toxicity values in mg/L (ppm) are:

fish 96-h LC50	> 100.0	P
daphnid 48-h LC50	> 100.0	P
green algal 96-h EC50	<= 1.0	P
fish chronic value	> 10.0	P
daphnid ChV	> 10.0	P
algal ChV	<= 0.100	P

Predictions are based on SAR-nearest analog method for , SAR-nearest analog analysis for , and indirect effect of algal shading from the ; SAR chemical class = ; solid; S = dispersible at pH 7, 20 C (P); pH7; effective concentrations based on 100% active ingredients and nominal concentrations; hardness <150.0 mg/L as CaCO3; and TOC <2.0 mg/L;
high concern for indirect shading effects to green algae;
assessment factor = 10.0
concern concentration = 0.010 mg/L (ppm) based on shading;
*CEB ECOTOX: No releases to water;

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INITIAL REVIEW EXPOSURE REPORT

Case Number: P050722 Assessor: Sherer

ENVIRONMENTAL RELEASES

Scenario#: Number of Release Sites:

Release Activity:

Release Description:	WATER	LANDFILL	INCINER	LAND/INCIN	FUGITIVE
Total Releases:					
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)
Release Days/yr:					
Per Site Release:					
	(kg/day)	(kg/yr)	(kg/yr)	(kg/yr)	(kg/day)

Remarks:

Sanitized Qualitative Standard Review Exposure Report

Case # P-05-0722

Assessor: Wormell

Date: 01/17/2006

Production Volume: kg/yr

Use:
FATE ASSESSMENT:

EXPOSURE ASSESSMENT

Release from Manufacture

Environmental Release Estimate Summary:

Source	Media of Release	kg/day	days/yr	kg/yr

Total Releases -Manufacture kg/yr

Release from Use

Environmental Release Estimate Summary:

Source	Media of Release	kg/day	days/yr	kg/yr

Total Releases- Use kg/yr

GENERAL POPULATION AND ENVIRONMENTAL EXPOSURE