#### UNIVERSITI TEKNOLOGI MARA PAHANG

# TYPES OF WOOD PRESERVATIVE FOR WOOD

### NOR ROHANA BINTI OSMAN

Final project submitted in partial fulfillment for the Diploma in Wood Industry, Faculty of Applied Science

April 2011

#### **ACKNOWLEDGEMENT**

First of all, I would like to thank Allah (S.W.T) for giving me good health and blessing until I can complete this project paper.

I would like to express my gratitude to my parent, all wood industries lecturers, especially Prof Madya Abdul Jalil as a my advisor and all my friend July 2008 batch. I gratefully acknowledge their help until I can finish this project paper.

Lastly, I also want to give the appreciation to all people in Uitm because of their direct or indirect help during my study. Thank you

### LIST OF PLATE

Plate 4.1 Brown rot in wood	14
Plate 4.2 White rot in wood	15
Plate 4.3 Soft rot in wood	16
Plate 4.4 Sap-staining (blue stain) fungi	17
Plate 4.5 Mold fungi	18
Plate 4.6 King, queen, and workers termites	19
Plate 4.7 Drywood termites	20
Plate 4.8 Nest structure of drywood termites	21
Plate 4.9 Dampwood termites	22
Plate 4.10 Wood damage by dampwood termites	23
Plate 4.11 Subterranean termites and their colonies	24
Plate 4.12 Wood damage by subterranean termites	25

#### TYPES OF PRESERVATIVE FOR WOOD

## By Nor Rohana Binti Osman April 2011

#### **ABSTRACT**

Wood preservation is the process for increasing the resistance of wood to prevent attacks from pests and fungus. Preservation of wood has three different types of preservative. The types of preservative are waterborne preservative, oils preservative and organic solvent preservative. Each type of preservative has different chemical components. Chemicals used for waterborne preservative is Chromate copper arsenate (CCA), alkaline Copper Quat (ACQ) and borate preservative. Creosote is used for oil type preservative. Meanwhile, pentachlorophenol and copper naphthenate preservative used in organic solvent. Wood suffered damage from fungus and insect pests. Among the fungi that damage wood is the wood destroying fungi (brown rot, white rot & soft rot) and wood staining fungi (sap-staining fungi, mold fungi). Three types of termites of major pests are dampwood termites, drywood termites and subterranean termites.

## TABLE OF CONTENTS

APPRO	VAL SI	HEET	i	
DEDIC	DICATION			
ACKNO	OWLED	GEMENT	iii	
LIST O	F PLAT	ES	iv	
ABSTR	AK		v	
ABSTR	ACT		vi	
СНАРТ	ER I: IN	NTRODUCTION		
1.1	Backg	round	1	
1.2	Object	tive	2	
СНАРТ	ER II: I	LITERATURE REVIEW		
2.1	Waterborne preservative			
2.2	Oil preservative			
2.3	Organic solvent preservative			
СНАРТ	ER III:	CHEMICAL IN PRESERVATIVE		
3.1	Water	borne preservative		
	3.1.1	Chromate copper arsenate (CCA)	6	
	3.1.2	Alkaline copper quaternary (ACQ)	6	
	3.1.3	Borate	7	
3.2	3.2 Oil preservative			
	3.2.1	Creosote	9	