INTRODUCTION

MCS [redacted] was developed as a fire resistant low temperature heat transfer fluid. Production quantities of this fluid are required for a tank car heating system at Vapor Corporation, Niles, Illinois. Five (5) drums of MCS 295 are scheduled for the first shipment and the initial order is estimated at 10,000 gallons.

SYNOPSIS OF PROCESS

MCS 295 is prepared by thoroughly mixing tri-tetrachlorobenzene with Aroclor 1242.

BILL OF MATERIALS

The process weights for 100 pounds of MCS 295 are as follows.

Aroclor 1242	80 pounds
Tri-tetrachlorobenzene	20 pounds

PROCESS IN DETAIL

To a clean, dry vessel, equipped with an agitator, charge 80 pounds of Aroclor 1242 and 20 pounds of tri-tetrachlorobenzene. Stir the blend for 30 minutes to insure complete mixing. The final fluid is filtered through a sock or a string wound filter into drums. A one pound sample of the product should be submitted for analysis.

MATERIAL SPECIFICATIONS

Raw materials used in this formulation are commercially available products. Aroclor 1242 (Monsanto Code #81101) and tri-tetrachlorobenzene (Monsanto Code #58500) must pass finished goods specifications.

The tentative specifications and methods of analyses for MCS 295 are as follows:

Tentative Specifications		Method	
		WOK	Arnieton
Appearance:	Clear, nearly white oily liquid	10084	14-44-54
Viscosity, cs at 100°F	8.90 to 9.10	10086	14-44-52
at 210°F	report		
Fire Point:	none to boiling point	10123	14-48-54
Sp.Gr. 25/15.5C:	1.408 to 1.416	10114	14-49-54
Pour Point:	[redacted] max.	Equal JFG 100-A	
Acidity (mg KOH/gm)	[redacted] 05 max.	10087	14-42-54
Moisture	[redacted]	10080	14-21-54

TOXICITY AND HAZARDS

The toxicity of MCS 295 is unknown at present and the formulation should be handled with normal care. Repeated or continuous skin contact should be avoided and inhalation of vapors at elevated temperatures should be prevented. Tri-tetrachlorobenzene is a flammable liquid and a moderate fire hazard. Fires resulting from this component can be extinguished with water (fog or spray) foam or carbon dioxide. Tri-tetrachlorobenzene is irritating to the respiratory system and eyes.

STREAM POLLUTION

No waste streams are discharged from this process.

J. D. Sullivan

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File Copy Approved by
Manager of Research
W. R. Richard

Date of Final Approval _____

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