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**Product Class 9: Arenesulfonic Acids and Derivatives**

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**Product Subclass 1: Arenesulfonic Acids and Arenesulfonate Salts**

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31.10 Product Class 10: Aryl Sulfones and Nitrogen Derivatives
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Method 1: Synthesis from Thiols
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Variation 2: By Reaction with Sulfuryl Chloride
Variation 3: By Reaction with N-Chlorosuccinimide
Variation 4: By Reaction with (Dichloroiodo)benzene

Method 2: Synthesis from Thioesters and Sulfuryl Chloride

Method 3: Synthesis from Sulfides

Method 4: Synthesis from Disulfides

Product Subclass 2: Arenesulfenyl Bromides

Synthesis from Disulfides and Bromine

Product Subclass 3: Arenesulfenyl Iodides

Reaction of Thiols with Iodine

Product Subclass 4: Arenesulfenic Acids

Method 1: Oxidation of Thiols
Method 2: Alkaline Hydrolysis of Sulfenic Acid Esters
Method 3: Thermolysis of Sulfoxides
Method 4: Thermolysis of N-(Sulfinyl)phenylmethanimines

Product Subclass 5: Arenesulfenic Acid Salts

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Synthesis from Silylated Sulfenic Acid Esters and Tetrabutylammonium Fluoride
Addition/Elimination Reactions of Sulfoxides
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O. A. Rakitin

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