

## **Styrenesulfonate Analogs**

We have been developing various NaSS analogs by focusing on the better solubility, metal free or cross-linkability. General properties of these are described below.

Product name	NaSS	LiSS	AmSS	CHASS	ETSS	DVBS
Status	Commercial		Developing			
Chemical formula						
	SO <sub>3</sub> Na	SO₃Li	SO <sub>3</sub> NH <sub>4</sub>		SO <sub>3</sub> Et	SO <sub>3</sub> Na
Appearance Melting Point (°C)	powder >330	powder >330	powder >330	powder 95-96	liquid -	powder >330
CAS No.	2695-37-6	4551-88-6	19922-72-6	None known	16736-98-4	1803538-81-9
REACH	Registered	-	-	-	-	-
TSCA	Listed	Listed	-	-	-	-
METI	3-1903	3-1948	3-1948	1)	-	-
Solubility(wt%) <sup>2)</sup>						
H <sub>2</sub> O	20	42	25	>30	insoluble	9
DMF	9	32	27	>30	miscible	20
NMP	7	23	20	>30	miscible	20
Ethanol	0.3	17	4	>30	miscible	<0.1
Toluene	insoluble	insoluble	insoluble	1	miscible	insoluble

Table1 General properties of NaSS and its analogs

1) Existing chemical substance, 2) at 25°C

## Example of radical polymerization

LiSS can polymerize in polar organic solvents, and the polymer is soluble in these solvents.

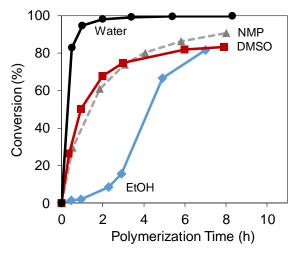


Fig.1 Polymerization rate of LiSS in various solvents [LiSS]=13wt%,V-50=1.5mol%,60°C

For more information, please contact us.

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