

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 ₃ Na | SO₃Li | SO ₃ NH ₄ | | SO ₃ Et | SO ₃ 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%) ²⁾ | | | | | | |
| H ₂ 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.

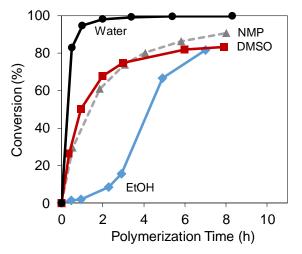


Fig.1 Polymerization rate of LiSS in various solvents [LiSS]=13wt%,V-50=1.5mol%,60°C

For more information, please contact us.

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