

Stabilization and Solidification processes of mercury



Nomura Kohsan Co.,Ltd.

Mercury wastes



Roasting · Refining



Stabilization

Sulfur

Purity $\geq 99.9\%$



Mercury

Purity $\geq 99.9\%$



Stabilization equipment



S/Hg molar ratio $\geq 1.05 \leq 1.1$

HgS

Dissolution Test $\leq 0.005\text{mg/L}$ under the Japanese leaching test (JLT-13)
Headspace Method $< 0.001\text{mg/m}^3$



Mercury gas treatment process

Solidification

HgS



Sulfur



Additives



Modified Sulfur

Solidification equipment



Weight ratio HgS/Modified sulfur 1:1

Solidified HgS

Dissolution Test $\leq 0.005\text{mg/L}$ under the Japanese leaching test (JLT-13)
Headspace Method $< 0.001\text{mg/m}^3$
Compressive strength $\geq 0.98\text{MPa}$

