

Composition of the substance

Name: Wastewater, zinc sulfate electrolytic, acid (purified zinc solution)

Description: Electrolytic solution of zinc sulphate consisting primarily of zinc

Constituent	Typical concentration	Concentration range	Remarks
zinc EC no.: 231-175-3	ca. 27.6 % (w/w)	> 14.0 — < 41.0 % (w/w)	present as ZnSO ₄
sulfur EC no.: 231-722-6	ca. 21.8 % (w/w)	> 20.0 — < 25.0 % (w/w)	present as SO ₄
oxygen EC no.: 231-956-9	ca. 42.0 % (w/w)	>= 40.0 — < 50.0 % (w/w)	present as oxidic ion
magnesium EC no.: 231-104-6	ca. 5.4 % (w/w)	> 0.5 — < 6.0 % (w/w)	Present as MgSO ₄
manganese EC no.: 231-105-1	ca. 0.77 % (w/w)	>= 0.1 — < 1.5 % (w/w)	Present as MnSO ₄
sodium EC no.: 231-132-9	ca. 0.5 % (w/w)	> 0.1 — < 2.0 % (w/w)	Present as Na ₂ SO ₄

Name: Wastewater, zinc sulfate electrolytic, acid (spent electrolyte)

Description: Electrolytic solution of zinc sulphate consisting primarily of zinc but also containing cadmium and sulphuric acid

Constituent	Typical concentration	Concentration range	Remarks
zinc EC no.: 231-175-3	ca. 27.6 % (w/w)	> 14.0 — < 41.0 % (w/w)	Present as ZnSO ₄
sulfur EC no.: 231-722-6	ca. 21.8 % (w/w)	> 20.0 — < 35.0 % (w/w)	
magnesium EC no.: 231-104-6	ca. 5.4 % (w/w)	> 0.5 — < 6.0 % (w/w)	Present as MgSO ₄
manganese EC no.: 231-105-1	ca. 0.77 % (w/w)	> 0.1 — < 1.5 % (w/w)	Present as MnSO ₄
sodium EC no.: 231-132-9	ca. 0.5 % (w/w)	> 0.1 — < 2.0 % (w/w)	Present as (NH ₄) ₂ SO ₄ and Na ₂ SO ₄
cadmium EC no.: 231-152-8	< 0.01 % (w/w)	> 0.0 — < 0.25 % (w/w)	Present as CdSO ₄
copper EC no.: 231-159-6	< 0.01 % (w/w)	> 0.0 — < 0.4 % (w/w)	Present as CuSO ₄
sulphuric acid EC no.: 231-639-5	ca. 10.0 % (w/w)	>= 5.0 — < 15.0 % (w/w)	concentration based on original solution