

SEWRPC Technical Report No. 62

IMPACTS OF CHLORIDE ON THE NATURAL AND BUILT ENVIRONMENT

Appendix A

ACRONYMS AND ABBREVIATIONS USED IN THIS REPORT

Table A.1
Acronyms and Abbreviations Used in This Report

| Acronym/ Abbreviation | Description |
|---|---|
| °F | Degrees Fahrenheit |
| ²²² Rn | Radon-222 isotope |
| ²²⁶ Ra | Radium-226 isotope |
| ACR | Alkali-carbonate reaction |
| AgCl | Silver chloride |
| Al ³⁺ | Aluminum ion |
| AlCl ₃ | Aluminum chloride |
| ALE | Lead action level |
| ASR | Alkali-silica reaction |
| BCL | Battelle Columbus Laboratories |
| BOD | Biochemical oxygen demand |
| Ca ²⁺ | Calcium ion |
| CaCl ₂ | Calcium chloride |
| CaCO ₃ | Calcite, calcium carbonate |
| CaCO ₃ | Calcium carbonate |
| Can\$ | Canadian dollars |
| C-S-H | Calcium-silicate-hydrate |
| Cl ⁻ | Chloride ion |
| CMA | Calcium magnesium acetate |
| CN ⁻ | Cyanide ion |
| CO ₂ | Carbon dioxide |
| CPI | Consumer Price Index |
| CSMR | Chloride-sulfate mass ratio |
| DOC | Dissolved organic carbon |
| E _h | Oxidation-reduction potential |
| <i>E. coli</i> | <i>Escherichia coli</i> |
| EPT | Ephemeroptera, Plecoptera, Trichoptera (mayflies, stoneflies, and caddisflies) |
| Fe ⁰ | Metallic iron |
| Fe ²⁺ | Iron (II) ion |
| Fe ³⁺ | Iron (III) ion |
| Fe ₂ O ₃ | Ferric oxide |
| Fe ₃ O ₄ | Magnetite |
| FeCl ₃ | Ferric chloride |
| Fe(Fe ₃ (CN) ₆) ₃ | Ferric ferrocyanide |
| FeO | Ferrous oxide |
| Fe(OH) ₃ | Ferric hydroxide |
| FeS | Iron sulfide |
| FeS ₂ | Pyrite |
| FHWA | Federal Highway Administration |
| GDP | Gross domestic product |
| GNP | Gross national product |
| H ⁺ | Hydrogen ion |
| H ₂ CO ₃ | Carbonic acid |
| HCN | Hydrogen cyanide |
| HCO ₃ ⁻ | Bicarbonate ion |
| HgCl ₂ | Mercurous chloride |
| K ⁺ | Potassium ion |

Table continued on next page.

Table A.1 (Continued)

| Acronym/ Abbreviation | Description |
|-------------------------------------|--|
| KCl | Potassium chloride |
| kg | Kilograms |
| kg per acre | Kilogram per acre |
| lbs | Pounds |
| LC50 | Concentration at which 50 percent of test organisms die |
| Mg ²⁺ | Magnesium ion |
| mg | Milligrams |
| mg/kg | Milligrams per kilogram |
| mg/l | Milligrams per liter |
| MgCl ₂ | Magnesium chloride |
| mgd | Million gallons per day |
| Mg(OH) ₂ | Brucite, magnesium hydroxide |
| mm | Millimeters |
| mm Hg | Millimeters of mercury |
| M-S-H | Magnesium-silicate-hydrate |
| N ₂ | Nitrogen gas |
| N ₂ O | Nitrous oxide |
| Na ²⁺ | Sodium ion |
| Na ₄ Fe(CN) ₆ | Sodium ferrocyanide |
| Na:Cl | Sodium to chloride ratio |
| NaCl | Sodium chloride |
| NaClO | Sodium hypochlorite |
| NBI | National Bridge Inventory |
| NBS | National Bureau of Standards |
| NH ₄ ⁺ | Ammonium ion |
| Ni ²⁺ | Nickel ion |
| NO ₂ ⁻ | Nitrite |
| NO ₃ ⁻ | Nitrate |
| NH ₄ ⁺ | Ammonium ion |
| PbCl ₂ | Lead chloride |
| pCi per l | Picocuries per liter |
| PM _{2.5} | Airborne particulate with a diameter of 2.5 micrometers or less |
| Ra ²⁺ | Radium ion |
| SCN ⁻ | Thiocyanate ion |
| SEWRPC | Southeastern Wisconsin Regional Planning Commission |
| SO ₄ ²⁻ | Sulfate |
| SRP | Soluble reactive phosphorus |
| stu | Standard units |
| TCMA | Twin Cities Metropolitan Area |
| TRB | Transportation Research Board |
| USEPA | U.S. Environmental Protection Agency |
| USGS | U.S. Geological Survey |
| V | Volts |
| WDNR | Wisconsin Department of Natural Resources |
| WisDOT | Wisconsin Department of Transportation |
| WWTP | Wastewater treatment plant |
| µf/dl | Micrograms per deciliter |
| µg/l | Microgram per liter |
| µS/cm | MicroSiemens per centimeter |

Source: SEWRPC