Hello,
I am Sarah
Institute for Sustainable Development
Our Mission:

We believe that Good Companies make a Sustainable Society.
on Mission to shape and build Sustainable Life for the people.
Chemical Disaster Story
Humidifier sterilizer tragedy

South Korea
~2011 - 2016

239 died,
1,528 injured
West fertilizer explosion

West Texas, USA
April 17, 2013

15 died, 260 injured
Elk river chemical spill
West Virginia, USA
January 9, 2014
300,000 residents without water
Is our **Hometown Safe from Toxic Chemicals?**
Emergency Planning and Community Right-to-Know

- Factory owner
- Submit Data - chemical amount
- EPA
- open
- Community

EPA - Environmental protection agency
PRTR - Pollutant release and transfer register
TRI - Toxics Release Inventory
Data is hard to read

How dangerous chemicals are?
What is the Issue of TRI data?
Acetaldehyde
51,800

Methanol
658,600

The total amount of chemical emissions of GEORGIA-PACIFIC TOLEDO LLC is 1,249,682 kg. Out of the total amount of emissions, 1,249,682 kg is emitted to the air, 133,849 kg to the water, and 35,865 kg to the soil. The total amount of migrated emissions is 0 kg, kg migrated to the chemical waste, and 0 kg migrated to the water waste.
Acetaldehyde 427,484,800  A  Methanol 121,548
Solution

Hazard-based results $\rightarrow$ Pounds x Toxicity Weight

= risk of factory

(Pound - Toxics Release Inventory pounds)
tackle tox

How to use?
I Live in ____________________

and I Wonder if it is Safe from Toxic Chemicals.
Songdo, Incheon
송도, 인천

52 Factories

factory list

apartment
Building **Sustainable Environment**.

- Good decision
- Informed community
How I made Tackle Tox using ArcGIS?
require(['
  "dojo/parser","dojo/ready",
  "esri/map", "esri/request",
  "extras/ClusterLayer",
  "esri/layers/FeatureLayer",
  "esri/dijit/Legend", "dojo/domReady!"
],

function(parser, ready, Map, esriRequest, ClusterLayer, FeatureLayer, Legend, on ) {
  ready(function()
    {
      ......
    });
});
factory

factory cluster

risk score

(GitHub ClusterLayer.js)
(Feature Layer)

- **Size**: 
  - Small
  - Medium
  - Large

- **Color**: 
  - Light
  - Medium
  - Dark

- **Opacity**: 
  - Transparent
  - Semi-Transparent
  - Opaque
var featureLayer = new FeatureLayer("https://sampleserver1.arcgisonline.com/ArcGIS/rest/services/Demographics/ESRI_Census_USA/MapServer/3", {
  mode: FeatureLayer.MODE_SNAPSHOT,
  outFields: ["*"],
  infoTemplate: infoTemplate
});
Feature Collection

- Longitude
- Polygons
- Latitude
Loading please wait ...

30,000 data
Big Data to Sustainable Data
Thank You for Your attention!

tackletox.com

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