



“Decarbonization and Detoxification: Linkages and Opportunities for Integrated Actions”



BASEL CONVENTION



ROTTERDAM CONVENTION



STOCKHOLM CONVENTION



MINAMATA
CONVENTION
ON MERCURY



UN
environment
programme

Guest Speakers List



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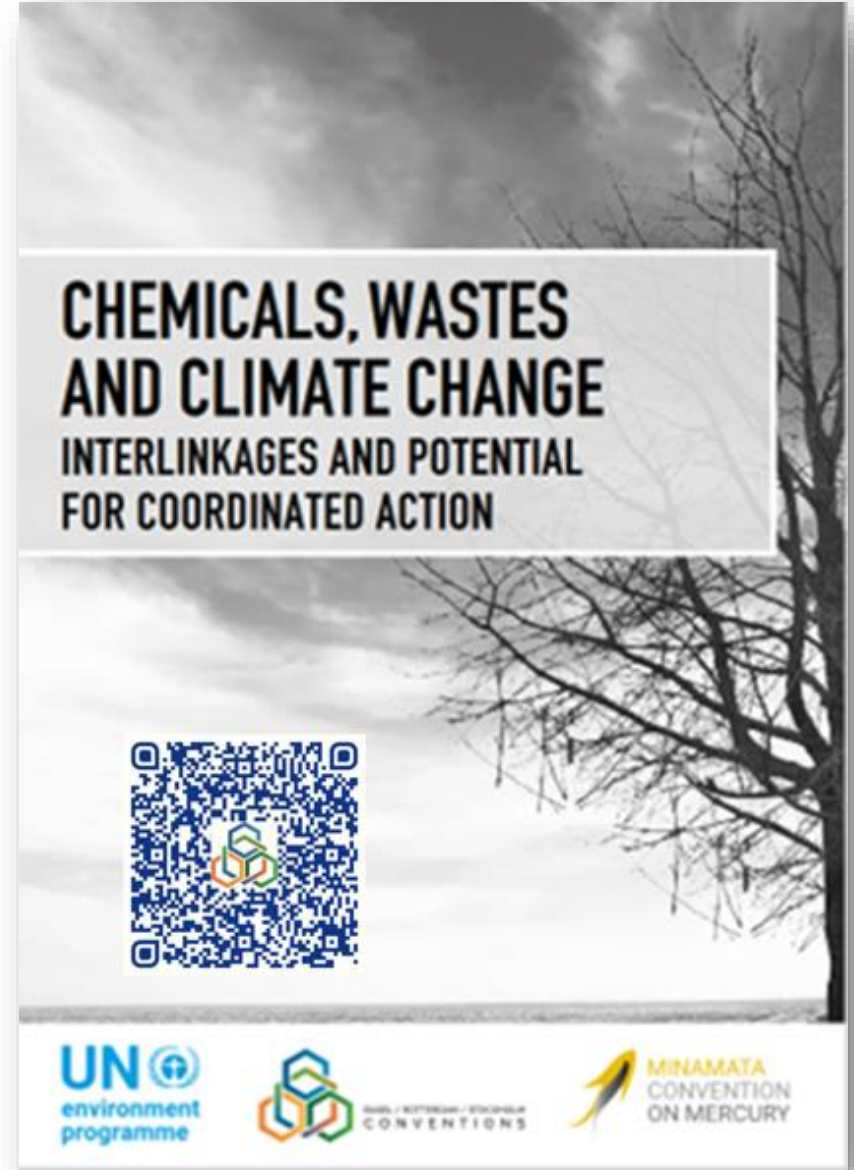
Ms. Lisa Koperqualuk

Inuit Circumpolar Council
Vice-Chair



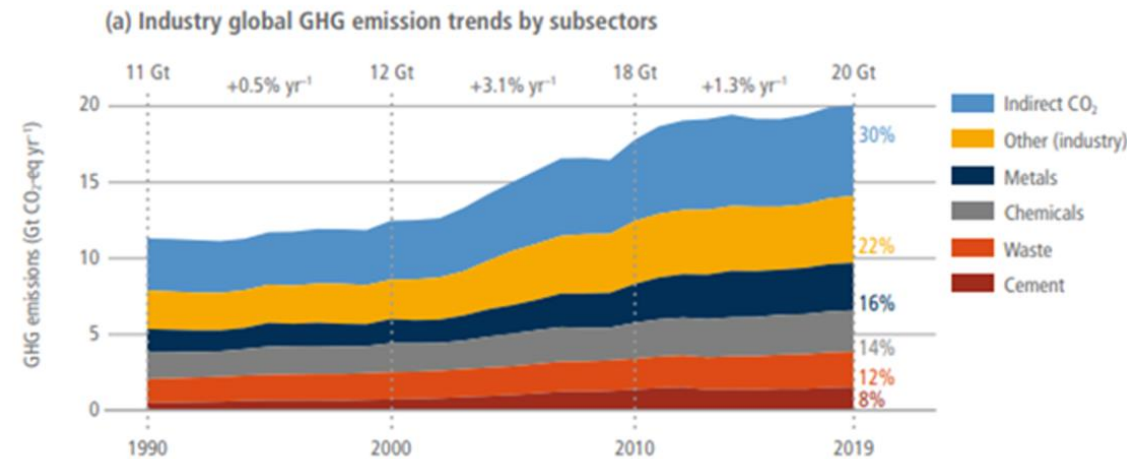
Ms. Monika Stankiewicz

Executive Secretary,
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Chemical sector's GHG emissions

- About 5% of total GHG emissions
- 3rd largest industry emitter (14% of industrial emissions)
- Single biggest industrial user of fossil fuel, with 50% of it used as feedstock
- GHG emissions occur at all stages of the life-cycle, from production, use to disposal
- According to International Energy Agency:
 - Efforts were undertaken to deploy low emission methods of chemical production and recycling
 - More is required to reach net zero scenario, as the sector expected to grow significantly, due to strong demand for chemical products, including plastics, and primary chemicals



IPPC Working Group III, 2022 report, chapter 2, p.249

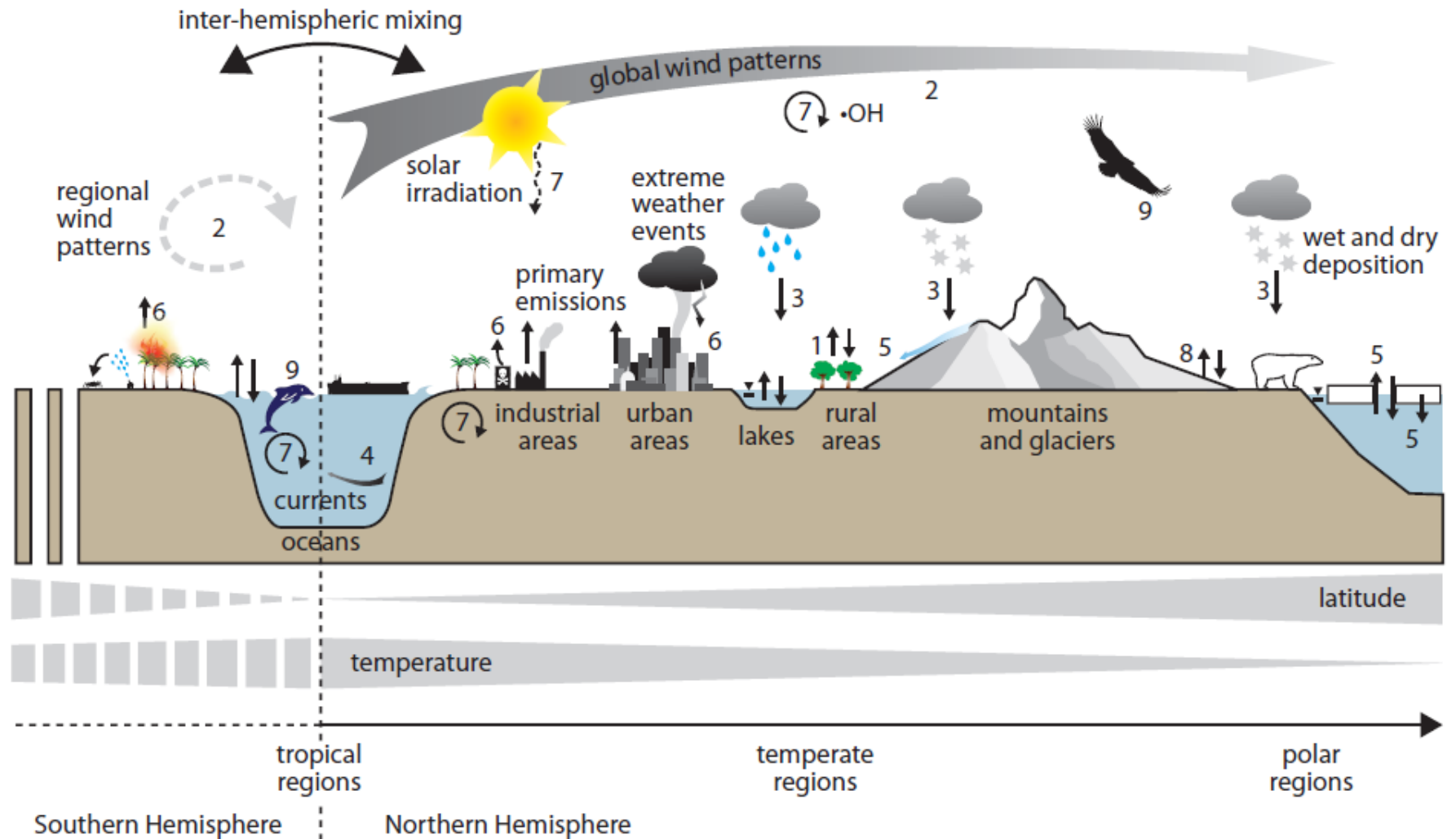
Climate change amplifies the releases of hazardous chemicals into the environment

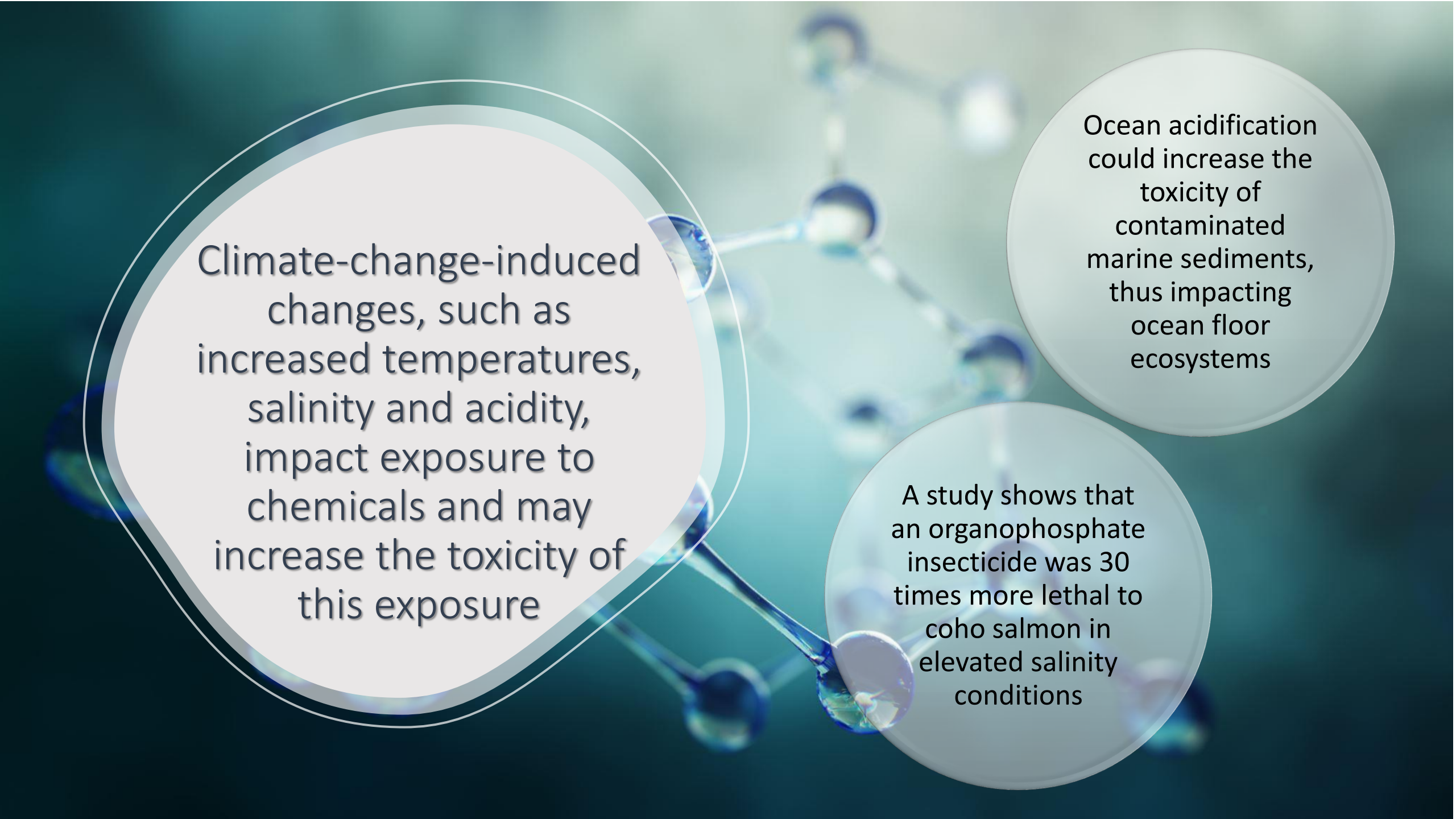
Increase volatilization into atmosphere (primary source)

1°C increase may potentially result in a 10% to 15% increase in the volatility of POPs

Release trapped chemicals (secondary re-volatilization sources) by melting of polar and alpine glaciers, permafrost and ocean ice

Create more frequent and severe industrial chemical spills and landfill flooding due to more intense and frequent weather events





Climate-change-induced changes, such as increased temperatures, salinity and acidity, impact exposure to chemicals and may increase the toxicity of this exposure

Ocean acidification could increase the toxicity of contaminated marine sediments, thus impacting ocean floor ecosystems

A study shows that an organophosphate insecticide was 30 times more lethal to coho salmon in elevated salinity conditions

Pollution makes species already struggling due to climate change even more vulnerable

The combination of sea ice decline and exposure to pollutants has a dramatic impact on polar bears' ability to store energy via fat to survive through periods of food scarcity



Opportunities for synergistic actions



Reducing pollution contributes to addressing climate change



GHG and hazardous chemicals are often released from same sources (such as chemical industry production and use; electricity generation, e.g. coal-fired power plants; cement or metals production)



Sound chemicals management throughout the life-cycle, through circular economy approaches, provides co-benefits for GHG emission reductions across various sectors and value chains



Mitigation synergies include: promoting energy and materials efficiency; BAT&BEP in all industrial sectors; phasing out polluting chemical production processes (e.g. chlor-alkali) and hazardous chemicals in products



Increasing knowledge, bridging and articulating integrated solutions will provide a common frame of reference for decision-makers