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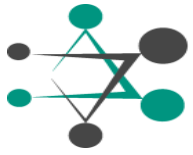


Overview of Chemicals Management Policy in India

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- Overview of Indian Chemical Industry
- Key Ministries and their Role in to Manage the Chemicals
- Present Chemical Management System
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 - Import
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- Challenges of Present Chemical Management system
- Need of Risk Based Umbrella Rule To Manage the Chemicals



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Indian Chemicals Industry



- ✓ **Indian Chemicals Industry** is a major player in the global market
 - ✓ **6th Largest producer** of Chemicals in the world and **3rd in Asia**¹
 - ✓ **14th position** in **export** of chemicals¹
 - ✓ It contributes approximately **3% of the GDP**.

- ✓ Indian Chemical Industry is **US\$220 Billion**
 - ✓ Projected to grow by approx. 9% p.a. during 2020-25 to reach **US\$300 Billion by FY 2025**
 - ✓ Expected to hit the **US\$1 Trillion mark by FY 2040**²

1. "Exports of Indian chemicals register growth of 106% in 2021-22 over 2013-14", Ministry of Commerce and Industry, 27 April 2022

2. "Indian chemical industry to be valued at \$1 trillion by 2040", The Economic Times, 01 March 2023

Ministry of Environment, Forest and Climate Change (MoEFCC) is the nodal agency in the administrative structure of the Central Government for the planning, promotion, co-ordination and overseeing the implementation of **India's environmental and forestry policies and programmes.**

Objective: Plan and implement environmental policies

- Conserving and surveying flora, fauna, forests, and wildlife
- **Preventing and controlling pollution**
- Afforestation and regeneration of degraded areas
- Protecting the environment
- Ensuring the welfare of animals
- Sustainable development of the Indian Himalayan Environment
- Mitigating land degradation

Power Conferred under Environmental Protection Act, 1986

- ✓ Responsible for **managing chemical disasters.**
- ✓ **Lifecycle management** of chemicals and wastes.
- ✓ To implement the principle of **reducing, reuse, and recycling** to achieve environmental sustainability.

Ministry of Chemicals and Fertilizers

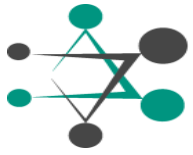
1. Department of **Chemicals and Petrochemicals**
2. Department of Fertilizers
3. Department of Pharmaceuticals

Department of Chemicals and Petrochemicals

- ✓ Formulating and implementing **policies and programs to promote the growth** of the chemical and petrochemical sectors
- ✓ Responsible for the **Policy, planning, development, and regulation** of the chemical and petrochemical industries

Key Deliverables of the DCPC

- ✓ Recent issuance of **Quality Control Order** of the various chemicals and petrochemicals, through power conferred under Bureau of Indian Standards (**BIS**) **Act of 2016**
- ✓ Statistics collection of chemical & Petrochemicals relating to **production, installed capacity, import, export, sales**, through power conferred under Collection of Statistics **Act, 2008** and Collection of Statistics **Rules, 2011**
- ✓ Formulation of **Draft Chemicals (Management & Safety) Rules, 20xx**, through power conferred under **Environment (Protection) Act, 1986**



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Act and Rules Applicable to Manage the Chemicals for Manufacture and Import

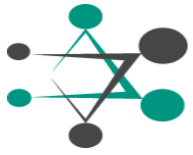


Sr. No.	Act	Rule	Ministry
1	Environmental Protection Act, 1986	Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (<u>MSIHC Rules 1989</u>), Amended in 1994 and 2000	Ministry of Environment, Forest and Climate Change
2	Environmental Protection Act, 1986	Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996 (<u>CAEPPR 1996</u>)	Ministry of Environment, Forest and Climate Change
3	Motor Vehicles Act, 1988	The Central Motor Vehicles Rules, 1989 (<u>CMVR</u>) <i>Transport of hazardous chemicals</i>	Ministry of Road, Transport, Highways, and Shipping
4	Environment (Protection) Act 1986	<u>Ozone Depleting Substance Rules (2000)</u>	Ministry of Environment, Forest and Climate Change

❖ About 41 Acts and Rules concerned with Chemicals, mostly to manage the environmental issues



Act and Rule



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Act, Rules and Ministry Applicable to Manage the Chemicals for Export

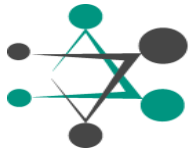


Sr. No.	Act	Rule	Ministry
1	Motor Vehicles Act, 1988	The Central Motor Vehicles Rules, 1989 (CMVR) <i>Transport of hazardous chemicals</i>	Ministry of Road, Transport, Highways, and Shipping
2	Environment (Protection) Act 1986	<u>Ozone Depleting Substance Rules (2000)</u>	Ministry of Environment, Forest and Climate Change
3	Foreign Trade (Development and Regulation) Act, 1992 (FTDR Act)	<u>SCOMET</u> (Special Chemicals, Organisms, Materials, Equipment, and Technologies)	Ministry of Commerce and Industry DGFT (Directorate General of Foreign Trade)

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Act and Rule



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1. Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (MSIHC Rules 1989, 1994, 2000)

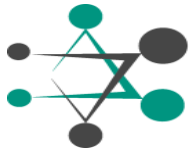


Objective:

- Prevent major accidents from industrial activities
- Limit the impact of accidents on the environment and humans
- Provide a procedure for handling hazardous chemicals

The MSIHC Rules Include:

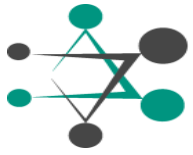
- Containers must be clearly labeled with the contents, manufacturer or importer name, and physical, chemical, and toxicological data.
- Occupiers must prepare on-site emergency plans, and district authorities must prepare off-site emergency plans.
- Manufacturers must prepare Safety Data Sheets (SDS).
- Major chemical accidents must be reported to prescribed authorities.



2. Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996 (CAEPPR)

- The rules provide statutory backup for crisis management and prescribe criteria for identifying Major Accident Hazard (MAH) installations.
- The rules establish a **four-tier crisis management** system:
 - ✓ **Central:** The Central Government must establish a Central Crisis Group to manage chemical accidents and set up a Crisis Alert System.
 - ✓ **State:** The State Government must establish a State Crisis Group to manage chemical accidents and required to meet at least once every three months.
 - ✓ **District:** The District Crisis Group is the apex body in the district for dealing with major chemical accidents and required to meet at least once every 45 days.
 - ✓ **Local:** The State Government is responsible for forming LCGs. The LCGs are required to meet at least once a month and send a copy of the proceedings to the District Crisis Group.

Ministry of Environment, Forest and Climate Change (MoEF&CC) is the nodal Ministry for the management of chemical disasters.



- India has not officially adopted GHS for chemicals yet.
- However, standard **16-section GHS compliant safety data sheets** in English is acceptable in India.
- The Draft Chemicals (Management and Safety) Rules published in 2020 **intends to implement GHS in India.**

Current SDS Requirements in India

Current SDS requirements are given in the Schedule 9 of “**The Manufacture, Storage and Import of Hazardous Chemicals Rule, 1989**”. It contains 9 sections:

Section 1: Chemical Identity

Section 2: Physical and Chemical Data Section

Section 3: Fire and Explosion Hazard Data Section

Section 4: Reactivity Data Section

Section 5: Health Hazard Data Section

Section 6: Preventive Measures Section

Section 7: Emergency and First Aid Measure

Section 8: Additional Information/ References

Section 9: Manufacturer/ Supplier Data



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Challenges of Existing Chemical Management Rule: MSIHC and CAEPPR



- Enhancing ratification and implementation of existing regulations.
- Expanding risk assessments and controls.
- Improving management capacity and raising awareness.
- **Lack of a chemical inventory management system**
 - Incorrect storage of hazardous substances can lead to fire and explosion risks. For example, incompatible substances can mix and generate heat, fumes, gases, and vapors. Emergency services may not be able to identify the substances involved in incidents, which can delay mitigating actions
- Minimizing generation of hazardous chemicals and wastes.



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Need of Risk Based Umbrella Rule To Manage the Chemicals



- In **2019**, India published a draft [National Action Plan for Chemicals \(NAPC\)](#)
- The plan has been prepared by the [National Coordination Committee \(NCC\)](#) – a chemical committee set up by the [Ministry of Environment, Forest and Climate Change \(MoEF&CC\)](#), which is responsible for drawing up chemicals legislation in the country.
- Draft NAPC made following recommendations:
 - ✓ Compile a national chemicals [inventory](#);
 - ✓ [Analyze and assess the risks](#) of those chemicals;
 - ✓ [Implement GHS](#);
 - ✓ [Develop](#) risk mitigation strategies, policies and regulations



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