

# Programme for Sustainability in the Textile and Leather Sector (STILE)

Factory Improvement Programme (FIP)- LFMEAB

Chemical Management System in Leather goods and Footwear Industries



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## ACTIVITY

**Question:** When you think about **Chemical Management Systems in Leather goods and Footwear Industries**, what comes into your mind?

**Time: 05 Min.**

# Activity: Chemicals Management Challenges

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List the 3-5 biggest problems or issues you face in managing of chemicals at your factory:

- 1.
- 2.
- 3.
- 4.
- 5.

# Outline

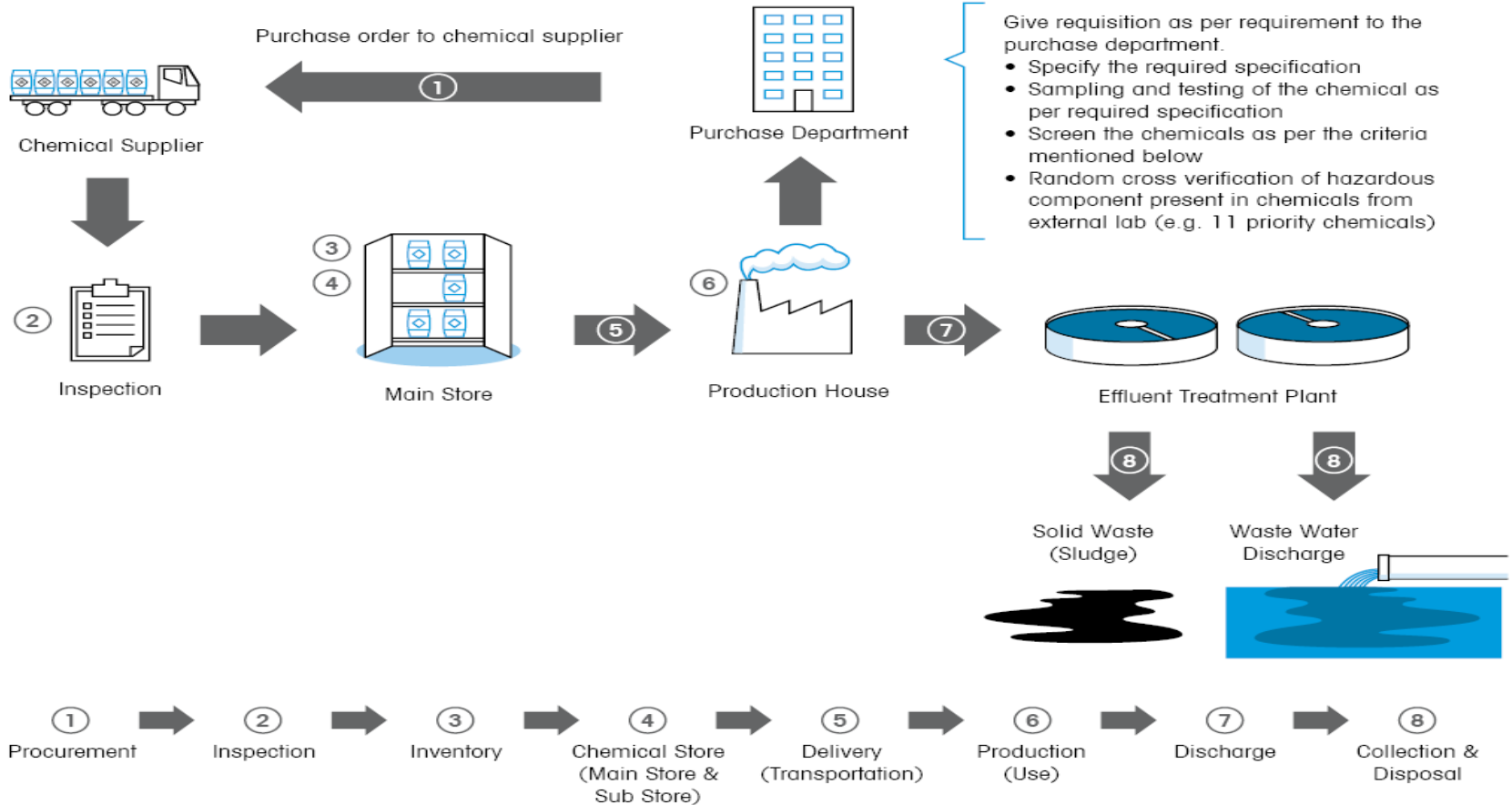
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- 1. Introduction Of Chemicals And Chemical Management***
- 2. Purchasing Of Chemicals***
- 3. Safety Data Sheet (SDS) Of Chemicals***
- 4. Chemical Labelling As Per Globally Harmonized System (GHS)***
- 5. Safe Storage Of Chemicals***
- 6. Transportation Of Chemicals***
- 7. Safe Ways Of Handling Chemicals***
- 8. Chemical Spill Management***
- 9. Disposing Of Chemical***

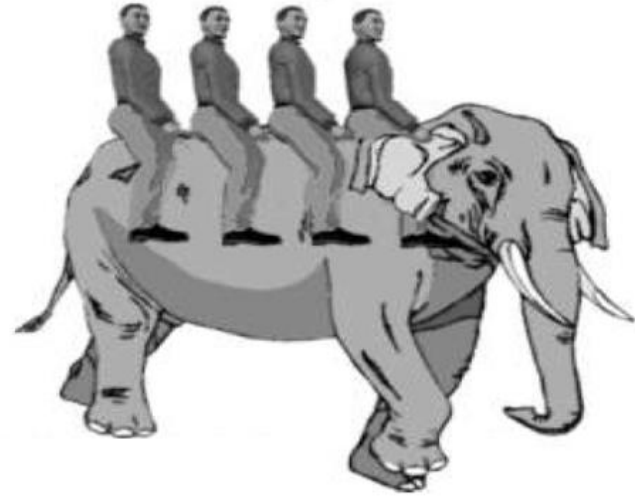


# Chemical Management System in a factory

# Chemical Management System in a factory

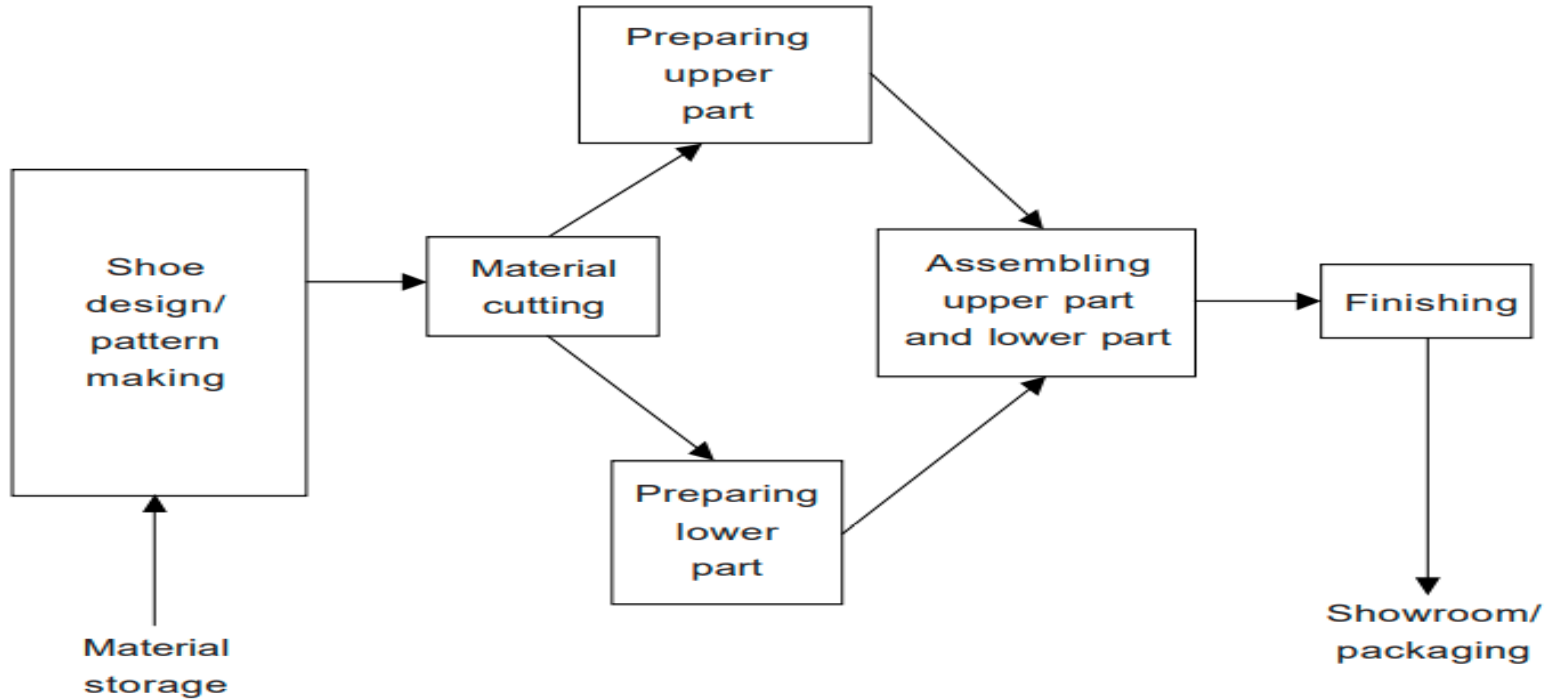


## Chemical Management in Leathersgoods and Footwear Industries



## Simplified Footwear Production Flow Chart:

Shoemaking can comprise numerous process steps. A simplified production flowchart is illustrated in the below:



# Chemicals Used In Sports Footwear :

**Number of Individual Area Of Chemical Used In A Sports Footwear :- 27**

**Number of Steps Used To Make Sport Footwear :- 112**

1. Label Sewing (Use Glue)
2. Tongue Foam + Folding +Glue (2 Times) Setting
3. Last + upper+ Insole (Uses latex)
4. Lining, Side Quarter & Zigzag Sewing (Uses glue for Vamp Joint)
5. Vamp Single Sewing (Uses Glue for vamp joint)
6. Eyelet part joint (Uses glue before double needle sewing)
7. Side quarter setting (Uses glue)
8. Vamp toe cap setting (Uses glue)
9. Upper Vamp Setting (Uses glue & Double needle sewing)
10. Collar Joint (Uses glue)
11. Loop sewing & eyelet part sewing (Uses glue)



## Chemicals Used In Sports Footwear :

12. Back Part setting (Uses glue & Single sewing)
13. Back counter + PU Setting (Uses glue + Double-needle sewing)
14. TC (Uses glue both sides + Lining Setting+ Eyelet Sewing)
15. Out sole Primer (Glue)
16. Cleaning
17. Upper primer
18. Upper & Sole 1st PU adhesive glue use
19. Upper & Sole 2nd PU adhesive glue use
20. Counter setting with upper (Using glue)
21. Lining glue & Upper glue
22. Collar foam setting (Uses glue)
23. Socks (Uses glue)
24. Cleaning
25. Cleaning
26. Anti-Fungus Spray
27. Cartoon Tape / Both Side Tape



# Chemicals Management – Where are chemicals used?



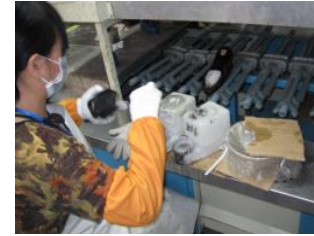
Fabric finishing chemicals  
(i.e. durable water repellent chemical formulations)



Screen printing solvents and inks



Metal finishing/plating chemicals



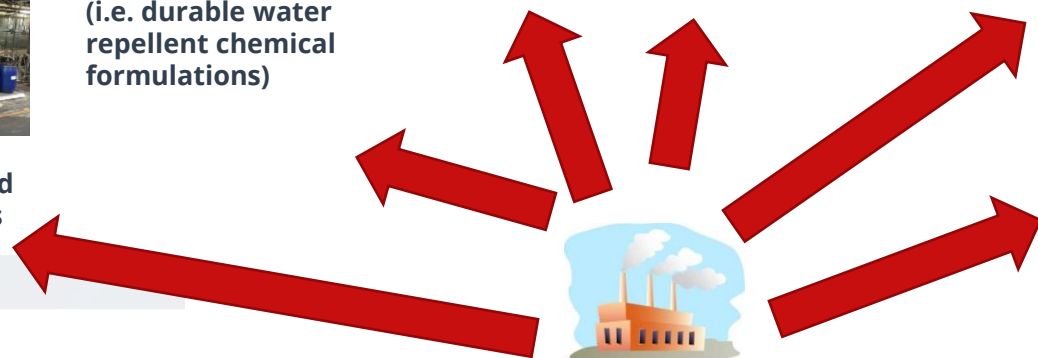
Primers, cements, and adhesives



Dyeing, tanning and auxiliary chemicals



Cleaning solvents



Chemical is the most important part of leather & Footwear Industry.  
**Almost 400 chemicals (including enzymes) used in the sector**

Origin

- **Imported** either by the local agent
- 50 or more other companies
- Countries of origin :China, India, European countries etc

Use of chemicals

- Transforming raw hide to preserved leather and transforming preserved leather to leather goods
- Chemical used for the leather to make shoes differs from the chemical used for the leather to make upholstery

- A chemical hazard is a type of occupational hazard caused by exposure to chemicals in the workplace.
- Exposure to chemicals in the workplace can cause acute or long-term detrimental health effects.

Eg: PANDA, NANPAO, INSOCO, ZHONG BU, WINSON

# COMMON CHEMICALS USE IN FOOTWEAR & LEATHER GOODS INDUSTRIES



## CHEMICALS USE IN FOOTWEAR INDUSTRY



**WATER BASE: LATEX, PU, NEOPRENE ETC.**

**SOLVENT BASE: PU, NEOPRENE, RUBBER SOLUTION, HARDENER, CLEANER ETC.**

**HOTMELT: POLYAMIDE, POLYESTER, ROD CEMENT**





**Thank You!**