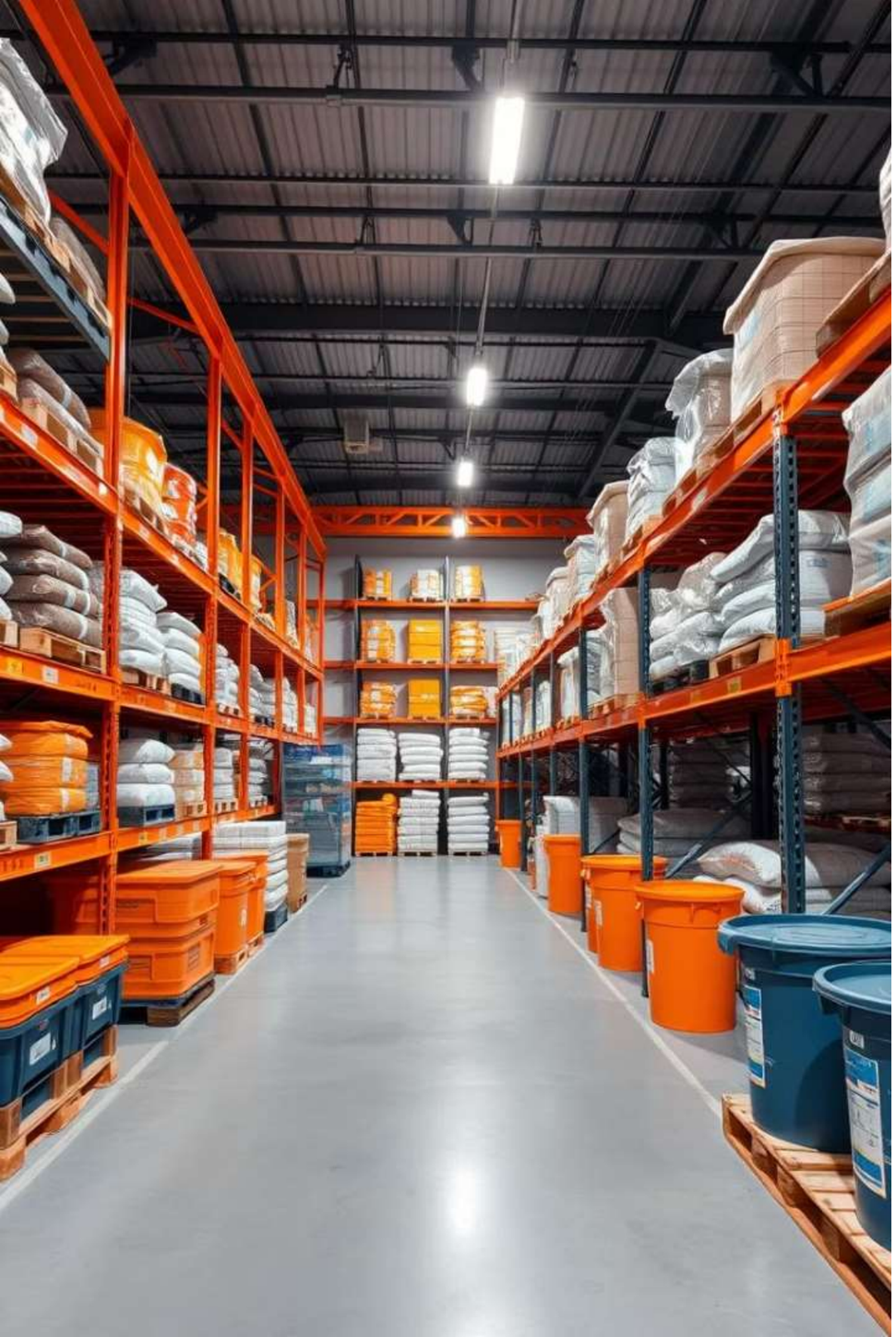


# Maintaining Raw Material Stores: Best Practices

Ensuring quality, safety, and efficiency is critical. This presentation focuses on proper storage, handling, and preservation techniques.

by Lavanya E SNS

# Understanding Raw Material Properties

## Physical State

Includes solids, liquids, and gases to consider for storage.

## Sensitivity

Temperature, humidity, and light affect material integrity.

## Shelf Life

Monitor expiration dates to prevent quality loss.

## Examples

- Metals
- Polymers
- Chemicals
- Food ingredients

# Optimal Storage Conditions

## Temperature Control

Use thermostats and cooling/heating equipment to maintain stability.

## Humidity Control

Employ desiccants and air ventilation to prevent moisture damage.

## Light Control

UV blocking and opaque containers protect light-sensitive materials.

## Inert Atmosphere

Nitrogen blanketing for ultra-sensitive materials to avoid oxidation.


# Inventory Management Systems

## FIFO

First-In, First-Out reduces spoilage by rotating stock.

## LIFO

Last-In, First-Out used in some industries for tax advantages.

## ABC Analysis

Prioritize management of high-value materials for efficiency.

## Real-Time Tracking

RFID and barcode scanning improve accuracy and traceability.

# Safety Protocols

## Proper Labeling

Clear hazard warnings and handling instructions on all materials.

## MSDS Availability

Keep Material Safety Data Sheets accessible and train staff.

## PPE

Ensure use of gloves, helmets, and masks during handling.

## Emergency Plans

Spill containment and fire suppression procedures ready to deploy.

# Housekeeping and Hygiene

1

## Regular Cleaning

Remove dust, debris, and control pests consistently.

2

## Waste Disposal

Follow regulations to eliminate hazardous and non-hazardous waste safely.

3

## Spill Prevention

Use secondary containment measures around liquid storage.

4

## Pest Control

Inspect and treat storage areas periodically to avoid infestations.

# Equipment Maintenance

## Forklifts & Pallet Jacks

Perform regular inspections and servicing for safety.

## Storage Racks

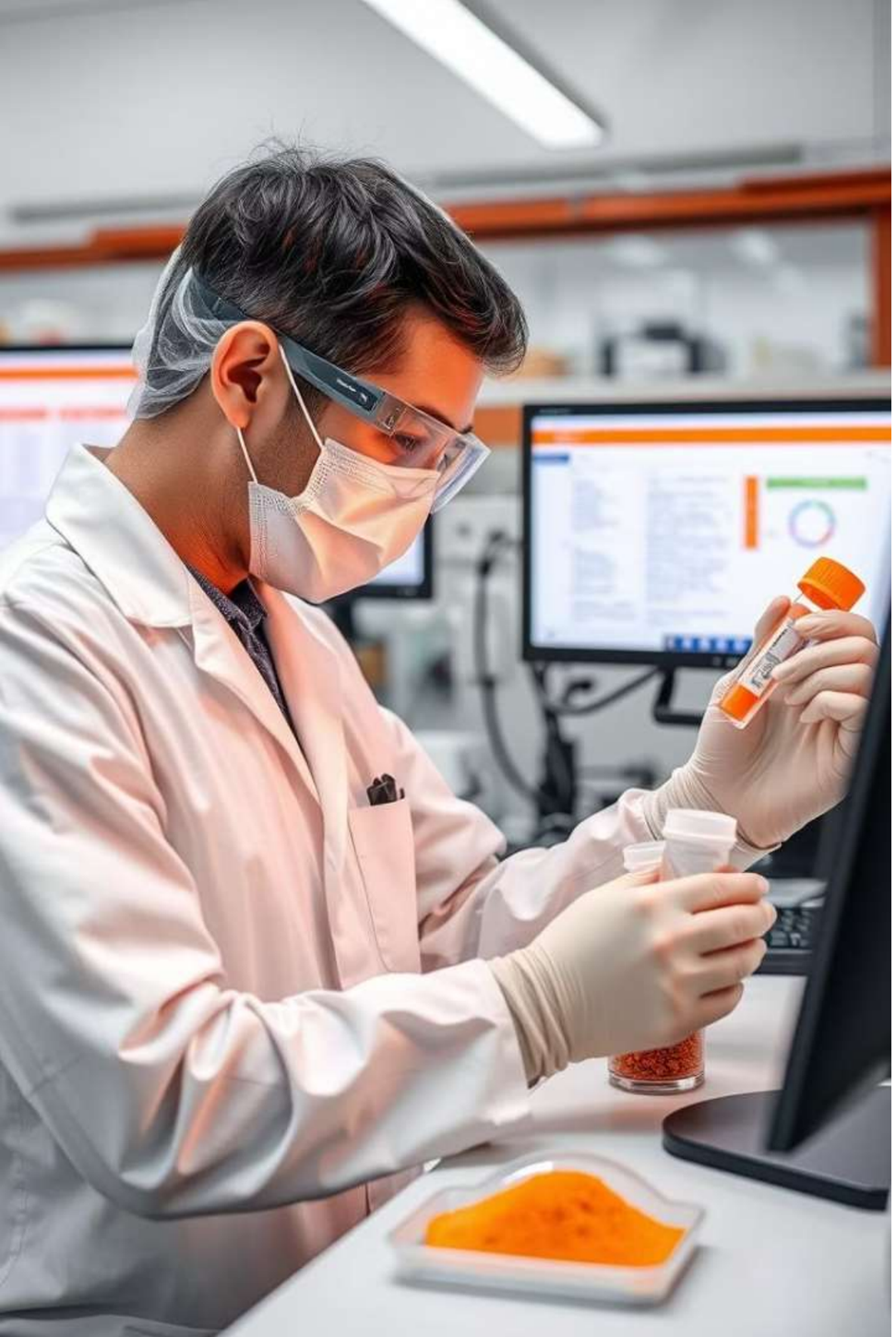
Check load capacities and stability to prevent accidents.

## Climate Systems

Replace filters and calibrate temperature and humidity controls regularly.

## Monitoring Equipment

Ensure sensors provide accurate data constantly.



# Quality Control

## Incoming Inspection

Verify quality and quantity before storage.

## Periodic Sampling

Test materials for degradation or contamination regularly.

## Documentation

Keep detailed records of tests and inspections.

## Traceability

Link materials to batches and suppliers efficiently.

# Best Practices


## Training

Educate personnel systematically on storage procedures.

## Audits

Periodically review storage and handling compliance.

## Continuous Improvement

Identify weaknesses and implement corrective actions.

## Documentation

Maintain SOPs, logs, and checklists for consistency.

# Conclusion: Ensuring Optimal Raw Material Storage

## Invest in Maintenance

Protect quality and safety through ongoing care.

## Reduce Waste

Improve efficiency to maximize resource use.

## Maximize ROI

Minimize risks by adhering to best practices.