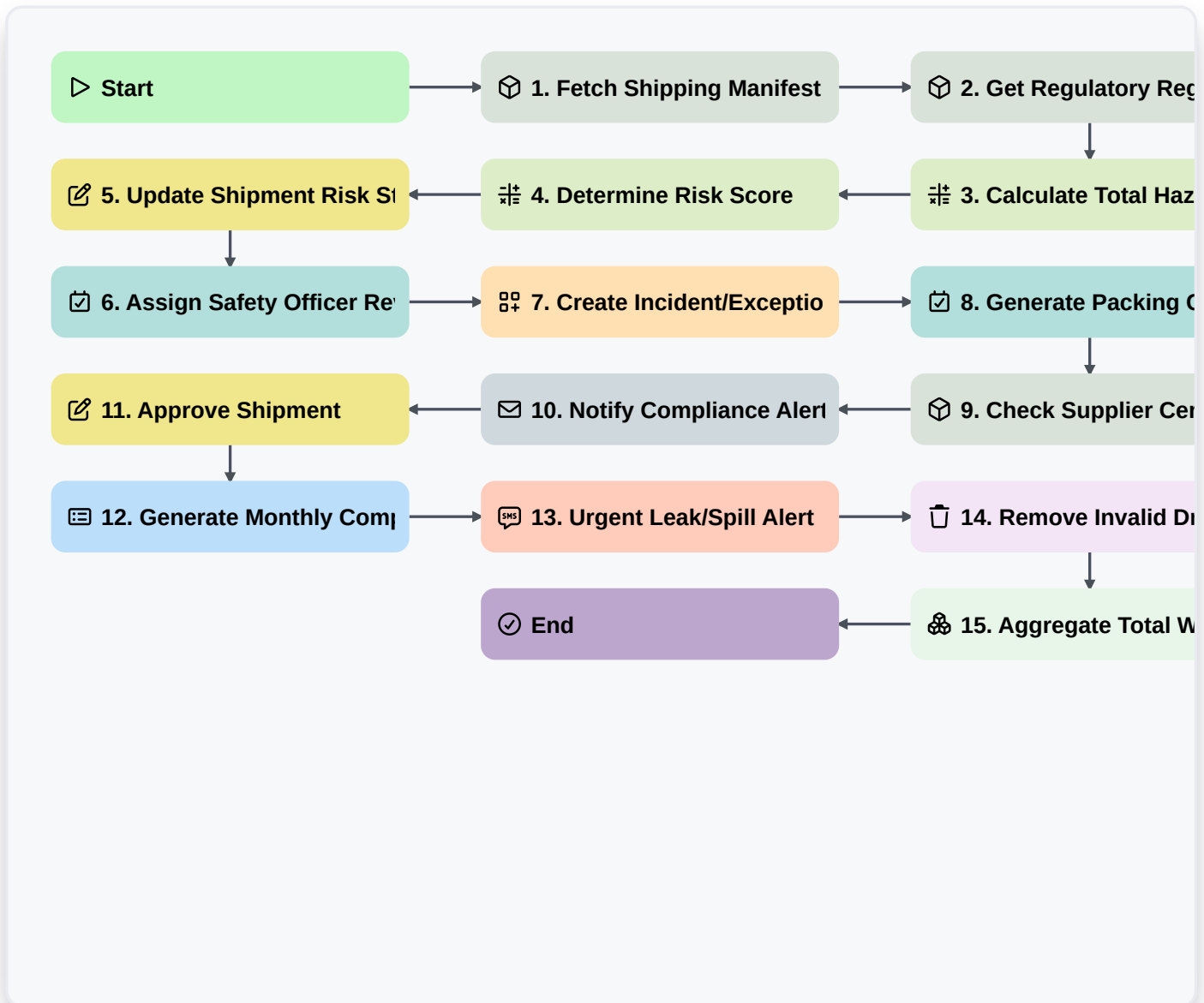


Dangerous Goods Compliance Workflow



▷ Start

Start of the Workflow/Process.

📦 1. Fetch Shipping Manifest

Retrieve all items and their chemical properties from the Shipment Data Model.

📦 2. Get Regulatory Regulations

Retrieve current UN Class and ADR/IATA compliance rules from the Regulations Data Model.

🔢 3. Calculate Total Hazardous Volume

Sum the net quantities of all identified hazardous substances in the shipment.

🔢 4. Determine Risk Score

Calculate a risk score based on chemical toxicity, flammability, and total quantity.

📝 5. Update Shipment Risk Status

Update the 'Compliance Status' field in the Shipment entry to 'Under Review' or 'Flagged'.

📝 6. Assign Safety Officer Review

Create a task for the Compliance Officer to manually audit high-risk shipments.



7. Create Incident/Exception Log

Create a new entry in the Compliance Exception Data Model if a violation is detected.

8. Generate Packing Checklist

Create a task for the Warehouse Operator containing the specific UN-approved packaging requirements.

9. Check Supplier Certification

Verify if the vendor's safety certification is still valid in the Vendor Data Model.

10. Notify Compliance Alert

Send an email alert to the Safety Manager when a high-risk substance is detected in a manifest.

11. Approve Shipment

Update the Shipment entry status to 'Compliant' once all safety checks pass.

12. Generate Monthly Compliance Audit

Create a summary report of all flagged shipments and their resolution status for the monthly audit.

13. Urgent Leak/Spill Alert

Send an SMS to the Emergency Response Team if a shipment contains Class 1 (Explosives) and is flagged as 'Damaged'.

14. Remove Invalid Drafts

Delete incomplete or non-compliant shipment drafts from the temporary staging area.

15. Aggregate Total Weight

Calculate the total gross weight of the shipment to determine if it exceeds transport vehicle limits.

End

End of the Workflow/Process.