

<b>Use Case Name:</b> Request a chemical		<b>ID:</b> UC-2	<b>Priority:</b> High
<b>Actor:</b> Lawn Chemical Applicator (LCA)			
<b>Description:</b> The Lawn Chemical Applicator (LCA) specifies the lawn chemical needed for a job by entering its name or ID number. The system satisfies the request by reserving the quantity requested or the quantity available and notifying the Chemical Supply Warehouse of the pick-up.			
<b>Trigger:</b> A Lawn Chemical Applicator (LCA) needs a chemical for a job.			
<b>Type:</b> <input checked="" type="checkbox"/> External <input type="checkbox"/> Temporal			
<b>Preconditions:</b>			
<ol style="list-style-type: none"> <li>The LCA identity is authenticated.</li> <li>The LCA has necessary training and credentials on file.</li> <li>The Chemical Supply datastore is up-to-date and on-line.</li> </ol>			
<b>Normal Course:</b>		<b>Information for Steps:</b>	
1.0 Request a lawn chemical from the chemical supply warehouse.			
1. The LCA specifies the desired lawn chemical	←	Chemical name or ID	
2. The system verifies the chemical is approved for usage	←	List of approved chemicals	
3. The system displays the quantity of the lawn chemical on hand	←	Quantity on hand	
4. The LCA specifies the quantity needed	←	Quantity needed	
5. The system asks the LCA to confirm the request for the quantity needed or the quantity available (Alternative Course 1.1)	←	Request confirmation	
6. The system gives the LCA a Chemical Pick-up Authorization for the quantity requested	→	Chemical Pick-up Authorization	
7. The system notifies the Chemical Supply Warehouse of the chemical pick-up	→	Chemical Pick-up Notice	
8. The system stores the Lawn Chemical Request in the Chemical Request datastore	→	Lawn Chemical Request	
<b>Alternative Courses:</b>			
1.1 Quantity available is less than quantity needed (branch at step 5)			
1. The system asks the LCA if he wants the quantity available or to cancel the request			
2a. The LCA asks to take the quantity available	←	Request quantity available	
3a. The system changes the quantity requested to the quantity available			
4a. The system gives the LCA a Chemical Pick-up-Authorization for the quantity available	→	Chemical Pick-up Authorization	
5a. The system notifies the Chemical Supply Warehouse of the chemical pick-up	→	Chemical Pick-up Notice	
6a. The system stores the Lawn Chemical Request in the Chemical Management System	→	Lawn Chemical Request	
7a. The system notifies Purchasing of the chemical outage	→	Chemical Outage Notice	
2b. The LCA asks to cancel the request	←	Cancellation	
3b. The system terminates the use case			
<b>Postconditions:</b>			
<ol style="list-style-type: none"> <li>The Lawn Chemical Request is stored in the Chemical Management System.</li> <li>The Chemical Pick-up Authorization is produced for the LCA.</li> <li>The Chemical Supply Warehouse is notified of the chemical pick-up.</li> <li>Purchasing is notified of chemical outage.</li> </ol>			
<b>Exceptions:</b>			
E1: Chemical is no longer approved for use (occurs at step 2)			
<ol style="list-style-type: none"> <li>The system displays message. "That chemical is no longer approved for use"</li> <li>The system asks the LCA if he wants to request another chemical or to exit</li> <li>The LCA asks to request another chemical</li> <li>The system starts Normal Course again</li> <li>The LCA asks to exit</li> <li>The system terminates the use case</li> </ol>			
<b>Summary</b>			
<b>Inputs</b>	<b>Source</b>	<b>Outputs</b>	<b>Destination</b>
Chemical name or ID	LCA	Chemical Pick-up Authorization	LCA
List of approved chemicals	Lawn Chemicals Supply datastore	Chemical Pick-up Notice	Chemical Supply Warehouse
Chemical quantity on hand	Lawn Chemicals Supply datastore	Lawn Chemical Request	Chemical Request datastore
Quantity needed	LCA	Chemical Outage Notice	Purchasing
Request confirmation	LCA		
Request quantity available or cancellation	LCA		

**FIGURE 4-1**  
Request a Chemical Use Case