



DWR – NPDES-SOP – G – 16 –Erosion Prevention and Sediment Control Handbook– 06202025

Erosion Prevention and Sediment Control Handbook

3.4.1 Chemical Storage



Source: CalTrans (2017)

Definition and Purpose

Chemical storage areas are equipped to eliminate the discharge of chemicals, fertilizers, and other non-sediment pollutants. This is achieved by minimizing the storage of all such materials onsite, storing onsite materials in a designated area, installing secondary containment, providing overhead or indoor coverage, and conducting regular inspections.

Appropriate Applications

This practice is applicable for storage of the following materials (CalTrans, 2017):

- Soil stabilizers and binders;
- Pesticides and herbicides;
- Fertilizers;
- Detergents;
- Plaster;
- Petroleum products such as fuel, oil, and grease;
- Asphalt and concrete components;
- Hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds;
- Concrete compounds; and
- Other materials that may be detrimental if released to the environment.



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Limitations and Maintenance

Keep storage areas clean, well-organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Repair or replace perimeter controls, containment structures, covers, and liners as needed to maintain proper function.

Planning and Desing Criteria

Keep an up-to-date inventory of materials stored onsite. All chemicals must be stored in covered areas or in containment systems constructed in or around the storage areas. Further, keep chemicals in their original labeled containers. Reactive, ignitable, or flammable liquids must be stored in compliance with local fire codes. Locate storage areas as far away as possible from waterbodies, sensitive areas, and inlets.

Ideally, store materials that are likely to contribute to pollution indoors. Storage sheds must meet local building and fire code requirements. If indoor storage of materials is not possible, providing coverage is the next best option. Do not store chemicals, drums, or bagged materials directly on the ground. Place these items on a pallet, in secondary containment, and under cover when possible (TDOT, 2017). These methods shield construction materials from raindrop impact and keep them out of flow paths. When providing overhead coverage is not feasible, plastic dome toppers can be purchased and snapped to the top of drums, which prevent rainwater from ponding on the drums.

Ensure all sites have spill kits. If a spill occurs, avoid washing the materials away with water as the water may runoff and spread the contamination. Instead, use dry methods to safely transfer the spilled materials into the designated spill containers for proper handling and disposal. Include emergency contact information for spills, such as the local emergency management agency's contact information. TDEC's local environmental field office should be contacted in the event that a chemical spill reaches a waterway. If residual materials remain after cleaning a spill or after construction completion, properly remove materials and any contaminated soil. If the area is to be paved, pave as soon as materials are removed to stabilize the soil and reduce the chance of spreading any contaminants.

Example Application

No formal design or quantities are required for this measure and therefore are not presented here.



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References

CalTrans. (2017). *Construction Site Best Management Practices (BMP) Manual*.

TDOT. (2017). *EPSC Inspection Manual*.