

Keystone® NXT Herbicide: Supplement to Bulk Storage and Handling Guide

This product-specific information supplements the Dow AgroSciences “Bulk Storage and Handling Guide”. Use these documents together to understand the requirements for a bulk storage facility of this product.

The Bulk Storage and Handling Guide is available at http://www.dowagro.com/stewardship/agchemicals/handling_guides.htm

General Storage Comments								
Keystone® NXT is a suspension of atrazine in acetochlor. A good circulation system is required. The product is thicker at cold temperatures, and a five horsepower pump capable of developing strong head is highly recommended.								
Product Density vs. Temperature								
Temperature °F (°C)	26(-3.5)	30 (-1)	40 (4)	50 (10)	60 (16)	70 (21)	80 (27)	90 (32)
Density (lb./gal.)	9.33	9.32	9.30	9.27	9.23	9.21	9.17	9.14
Flash Point, NFPA Rating, Storage Temperature, and Signal Word								
Flash Point l °F (°C)	NFPA 704 Diamond Ratings			Min. Storage Temperature °F (°C)	EPA Signal Word			
	Health	Flammability	Reactivity					
>200 (>93)	2	1	1	50 (10)	Caution			
Formulation contains water and will freeze, but has no history of problems upon thaw. Circulate product after thaw. Drain plumbing for protection against freeze damage.								
Material / Product Compatibility								
		Rating	Comment					
Stainless Steel, Heresite[™]-lined steel		OK						
High-density polyethylene (HDPE), Teflon[™] , polypropylene(PP), polyvinylidene difluoride (PVDF)		OK						
Aluminum		No						
Polyvinyl chloride (PVC)		No						
Mild Steel		No	Moderate corrosion due to water in formulation. Contact with mild steel may cause color change and reduce product’s ability to emulsify with water.					
Bulk Tank Material of Construction and Requirements								
Material of Construction	Stainless steel is preferred. Do not use mild steel or aluminum tanks. Mild steel tanks are not allowed due to aqueous product corrosion. If state and local laws permit, existing polyethylene storage tanks may be utilized if the tank is free of cracks, UV degradation or other signs of aging or structural defects. Dow AgroSciences will not bear risk or liability associated with the use of polyethylene bulk tanks.							
Venting Requirements	Self-closing PVRV Required on this product to minimize moisture loss from the formulation, avoiding any surface “skinning” or formulation evaporation.							
Couplers	Standard 2” Kamlok ² Style Adapter with cap for receiving bulk deliveries.							
Mixing Requirement	Keystone® NXT is a suspension of atrazine in acetochlor. A good circulation system is required. Circulate at least twice the tank volume once before the season. Off-season mixing is not required,							

¹ The flash point of a liquid is the minimum temperature at which it gives off sufficient vapor to form an ignitable mixture with the air near the surface of the liquid or within the test vessel used.

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	however, mixing over-wintered material once in the Fall just before temperature drops below 50 °F is good practice. Mix product well again just before the season, or when product temperature reaches 50 °F. 5 Hp motors are recommended. Pumps capable of high flow against pressure head are required. Mixing at colder temperatures will do no harm, but will be more difficult due to increased viscosity.
Pump	Three horsepower pump motors as a are required; however, five horsepower motors are highly recommended. A double mechanical seal pump is recommended for products with suspended solids to extend seal life. Double mechanical seals are recommended, but not required for other products.
Refillable Container Handling	
DOT	Not regulated by US Department of Transportation; however, containers must meet EPA requirements specified in the Pesticide Container & Containment Rule.
Material of Construction	Stainless steel is preferred. Polyethylene refillable containers allowed. Mild steel tanks are not allowed due to potential for corrosion.
Mixing	Circulate tank contents at least twice the tank volume once before the season if product was stored for several months or more. Although these are suspension formulations, they show superior resistance to stratification or viscosity changes. In-season or off-season mixing is not required.
Couplers	Standard couplers.

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