

Duramax® and Durango® DMA® Herbicides: 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/rc/steward/handling.htm>

General Storage Comments

Duramax DMA and Durango DMA herbicides handle well in bulk. Crystallization is not an issue, although there is a recommended minimum storage temperature. The product may be stored in poly and stainless steel.

Product Density vs. Temperature

Temperature °F (°C)	20 (-7)	30 (-1)	40 (4)	50 (10)	60 (16)	70 (21)	80 (27)	90 (32)
Density (lb./gal.)		10.24	10.22	10.19	10.17	10.15	10.12	

Flash Point, NFPA Rating, Storage Temperature, and Signal Word

Flash Point ¹ °F (°C)	NFPA 704 Diamond Ratings			Min. Storage Temperature* °F (°C)	EPA Signal Word
	Health	Flammability	Reactivity		
>200 (>93)	1	1	0	-40 (-40)	Caution

*Formulation will get viscous but did not solidify in tests down to this minimum storage temperature .

Material / Product Compatibility	Rating	Comment
Stainless Steel	OK	Essentially non-corrosive.
Aluminum, Copper, Yellow Brass, Bronze	OK	Slightly corrosive.
Buna-N, EPDM, Viton, Neoprene, Butyl Rubber, SBR Rubber, Silicone Rubber, Nylon 6/6, Delrin, Polyurethane, Teflon	OK	Little to no effect.
Polyethylene (Low and High Density, HMW), Polypropylene, Rigid PVC	OK	Little to no effect
Plasticized PVC, Lexan	OK	Slight shrinking.
Hypalon Rubber	OK	Slight swelling
Tin, Galvanized, Zinc	No	Moderately to severe corrosive.
Mild steel.	No / Caution	Corrosive. May form hydrogen gas and solid deposits. Never use for tanks. Use extreme caution in other limited exposure applications.
Vellumoid	No	Swells moderately. Severe weight gain.

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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Bulk Tank Material of Construction and Requirements

Material of Construction	Stainless steel is preferred due to durability. Polyethylene is acceptable. Mild steel tanks are not allowed due to potential corrosion reaction that may produce hydrogen gas. Aluminum exhibits slight corrosion (0.3-0.5 mil-inches per year in coupon tests) but could be used if monitored regularly.
Venting Requirements	No special venting requirements.
Couplers	Standard 2" Kamlok ² Style Adapter with cap for receiving bulk deliveries.
Mixing Requirement	Does not require mixing under normal storage.

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. Product or spray dilutions of it may react with the container to produce hydrogen gas.
Mixing	Does not require mixing under normal storage.
Couplers	Standard connections are acceptable.

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