

SAFETY DATA SHEET

Dyna BorN

Date Prepared: 11/24/2014

Replaces: All Previous

SECTION 1. IDENTIFICATION

Product Name: Dyna BorN
Synonyms: GOLDBOY
Use: Agricultural, Liquid Micronutrient Fertilizer
Manufacturer: Chemical Dynamics, Inc.
4206 Business Lane
Plant City FL 33566
Phone: 813-752-4950
Chemtrec (Emergency) Phone: 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

Product is not classified as hazardous under normal conditions

SECTION 3. COMPOSITION

Material	CAS #	EINECS #	%WT
Urea	57-13-6	200-315-5	Proprietary Blend Of
Boron Alkoxy Esters *	62185-81-3	263-449-3	Materials Not Classified
Water	7732-18-5	231-791-2	as Hazardous

* = complex reaction products

See product label for guaranteed analysis.

SECTION 4. FIRST AID MEASURES

General:	No specific acute or chronic health effects known. In case of persisting adverse effects consult a physician. Treat symptomatically.
Ingestion:	Drink large amounts of water. Do not induce vomiting. Call doctor or poison control center.
Skin Contact:	If on skin (or hair): Take off all contaminated clothing and wash exposed skin with soap and water. If irritation persists, seek medical attention.
Inhalation:	If inhaled: Remove person to fresh air and keep comfortable for breathing. Provide artificial respiration if necessary. May cause respiratory tract irritation. Seek medical attention if necessary.
Eye Contact:	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: get medical attention.
Acute Exposure Symptoms:	May cause slight, transient irritation of eyes and skin. Ingestion may irritate gastrointestinal tract.
Chronic Exposure Symptoms:	No specific chronic health effects known.

SECTION 5. FIRE FIGHTING MEASURES	
Extinguishing Media:	This product is non-flammable. Use appropriate media for surrounding fire. Cool containers with water spray to avoid rupture due to thermal expansion.
Specific Hazards:	This product is an aqueous mixture and is not flammable. If material is exposed to prolonged heat in a fire, material may release ammonia, oxides of carbon, nitrogen, and boron. May be combustible if evaporated to dryness. For safety, avoid water spray with full jet to prevent spread of product.
Protective Equipment and Precautions for Fire-Fighters:	Wear self-contained breathing apparatus (SCBA) and full protective gear. Avoid inhaling combustion products. Fire run-off should be contained to prevent possible environmental damage.
NFPA Rating:	Health: 1, Fire: 0, Reactivity: 0

SECTION 6. ACCIDENTAL RELEASE MEASURES	
Precautions:	Isolate area. Keep unnecessary personnel away. Avoid splashing or spraying. Do not touch or walk through spilled material.
Protective Equipment:	Impervious gloves (rubber, neoprene or nitrile), chemical resistant suit, Chemical splash-proof goggles, face shield. Chemical resistant apron and/or rubber boots may be needed. Use NIOSH approved respirator if vapors or mists exceed applicable concentration limits.
Containment:	Stop flow of material if safe to do so. Dike area with diatomaceous earth or sand and maximize recovery. Prevent spillage from entering drains or open bodies of water. Any release to the environment may be subject to reporting requirements.
Clean Up:	Pump into a suitable tank or absorb with diatomaceous earth or sand. Residue can be neutralized slowly with lime. Recover and dispose of residue. Sweep up and place into suitable containers for agronomical land application at recommended rates or dispose of in accordance with local/regional/national regulations (See Section 13 of SDS).

SECTION 7. HANDLING AND STORAGE	
Precautions for safe handling:	Open containers carefully. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Do not eat, drink or use tobacco products when handling this material. Apply product in open areas. Keep away from children and pets. Do not contaminate feed, seed or any water sources. Launder work clothes frequently and separate from other laundry.
Conditions for safe storage:	Store in a well-ventilated, cool, dry place, away from sources of intense heat, or where freezing is possible. Keep away from incompatible materials. Large storage tanks should have secondary containment and electrically grounded. Polyethylene, polypropylene and stainless steel are acceptable materials for storage containers. Ensure that all pumps, valves, meters, gaskets, etc., are of compatible materials. Keep containers tightly closed when not in use. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.
Incompatibilities:	This product can react with strong reducing or oxidizing agents. May react violently with acids and with (some) bases.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION			
Component Exposure Limits:	Urea	Not Established	PEL, OSHA
		10 mg/m ³	TWA, ACGIH
		Not Established	IDLH, NIOSH
		Not Established	REL, NIOSH
		Not Established	STEL, NIOSH
		Not Established	PEL, OSHA
	Boron Alkoxy Esters	Not Established	PEL, OSHA
		Not Established	STEL, OSHA
		Not Established	TLV, ACGIH
		Not Established	IDLH, NIOSH
		Not Established	REL, NIOSH
		Not Established	STEL, NIOSH
Engineering Controls:	Provide local exhaust ventilation and wash facilities. Eye wash stations and safety showers recommended.		
Personal Protective Equipment:	<p><u>Eyes:</u> Chemical splash-proof goggles and face shield</p> <p><u>Skin:</u> Impervious gloves (rubber, neoprene or nitrile), long sleeved clothing. Chemically resistant apron is recommended.</p> <p><u>Respiratory:</u> None required for ambient air concentrations (i.e. in the open under normal agronomic conditions) not exceeding occupational exposure limits. Respiratory protection may be required in the event of a spill in an enclosed area. Wear NIOSH approved respiratory protective equipment when vapor or mists may exist as well as a chemical suit.</p>		

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES			
Appearance:	Clear, blue liquid		
Odor:	None	UEL / LEL:	Not Applicable
Odor Threshold:	Not Available	Vapor Pressure:	Not Available
pH:	6.6 to 7.6	Density:	1.14 to 1.16 g/cm ³
Melting/Freezing Point:	< 0°C (32°F)	Solubility:	Water
Boiling Point:	>100°C (212°F)	Log_{ow}:	Not Available
Flash Point:	Not Applicable	Auto Ignition Temp:	Not Applicable
Evaporation Rate:	Similar to water	Decomposition Temp:	Not Available
Flammability (Solid/Gas):	Not Applicable	Viscosity	Not Available

SECTION 10. STABILITY AND REACTIVITY	
Reactivity:	Stable.
Chemical Stability:	Stable under normal conditions. May be combustible if evaporated to dryness
Possibility of Hazardous Reactions:	Hazardous polymerization will not occur.
Conditions to avoid:	High temperatures. Heating can evolve irritating and toxic nitrogen oxides and ammonia, particularly if heated to decomposition.
Incompatible Materials:	This product can react with strong reducing or oxidizing agents.
Hazardous Decomposition Products:	Carbon dioxide, oxides of nitrogen, ammonia and oxides of boron

SECTION 11. TOXICOLOGICAL INFORMATION	
Acute Toxicity:	Urea: LD50 oral (rat): > 2000 mg/kg Boron Alkoxy Ester: Not Available
Likely Routes of Exposure:	Inhalation of mist, eye, and skin contact.
Symptoms and Signs of Exposure:	<u>Eyes:</u> May cause temporary eye irritation. May cause redness and pain. <u>Skin:</u> Low skin irritation potential. May cause slight skin irritation. <u>Inhalation:</u> Repeated or prolonged inhalation of mists may lead to respiratory irritation. <u>Ingestion:</u> May cause digestive tract irritation, with accompanying nausea, vomiting and diarrhea.
Chronic Effects:	No specific chronic health effects known.
Carcinogenic:	None of this product's components are listed by ACGIH, OSHA, IARC, NIOSH, NTP or California Prop 65 as carcinogenic.
Mutagenicity:	Not Classified
Reproductive Toxicity:	Not Classified

SECTION 12. ECOLOGICAL INFORMATION	
Ecotoxicity:	May be harmful to fish, livestock and wildlife. Non-persistent and non-cumulative when properly applied agronomically.
Other Adverse Effects:	Not harmful to ozone layer
Ecotoxicity:	Urea: LC50 (24 hr) Daphnia magna (Water flea): > 10000 mg/L. Freshwater; static LC50 – Poecilia reticulata (guppy): 17,500 mg/L for 96 hrs Alkoxy Borate Esters: Not Available

SECTION 13. DISPOSAL CONSIDERATIONS	
General Information:	None
Disposal Instructions:	Agronomical land application at recommended rates or dispose of in accordance with local/regional/national regulations. Container contents should be completely used and the containers rinsed prior to discard. Rinsate should be treated as a corrosive material. Dispose of in accordance with product characteristics at time of disposal.

SECTION 14. TRANSPORT INFORMATION	
This material is not hazardous as defined by 49 CFR 172.101 by the US Department of Transportation	
Proper Shipping Name:	Not Applicable
Hazard Class:	Not Applicable
UN Identification #:	Not Applicable
Packing Group:	Not Applicable
Required Label(s):	Not Applicable
Emergency Response Guide Number:	Not Applicable
Marine Pollutant:	No

SECTION 15. REGULATORY INFORMATION	
TSCA Inventory Status	All intentional ingredients listed on the TSCA inventory.
DSCL (EEC) Status	All intentional ingredients listed on the DSCL inventory.
United States – SARA Hazard Category:	No chemicals in this material have hazard classifications under SARA Title III, Sec 311 and 312
SARA Title III Information:	This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
Urea CAS No. 57-13-6, Alkoxy Borate Esters, CAS No. 94095-04-2	CERCLA RQ (pounds): No SARA Reporting, 302: No SARA Reporting, 304: No SARA Reporting, 313: No
Federal Insecticide, Fungicide, and Rodenticide Act	This product is not a pesticide.
State Regulations:	Other state regulations may apply. Check individual state requirements.

SECTION 16. OTHER INFORMATION

Date of Revision:	11/24/2014, revision prepared in accordance with 29 CFR 1910.1200 Appendix D to meet Global Harmonization Standards.
Disclaimer:	The information contained in this SDS refers only to the specific material designated and does not relate to any process or use with any other materials. This information is based on data believed to be accurate and reliable as of the date hereof. It is intended for use by persons possessing technical knowledge at their own discretion and risk. Because safety standards and regulations are subject to change and because Chemical Dynamics, Inc. has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. No warranty, expressed or implied, and no liability is assumed by Chemical Dynamics, Inc. in conjunction with the use of this information. Nothing herein is to be construed as a recommendation to infringe any patents.