SAFETY DATA SHEET		
Dyna Flo 0-0-30	Date Prepared: 12/27/2013	Replaces: All Previous

SECTION 1. IDENTIFICATION

Product Name:	Dyna Flo 0-0-30
Synonyms:	Potassium Carbonate Solution, FLO0030
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

Pictogram	Signal Word	Hazard Class	Hazard Category	Hazard Statement
	**WARNING**	Skin Irritation Eye Irritation Specific Organ Toxicity, Single Exposure	Cat 2 Cat 2A Cat 3	Causes skin irritation Causes serious eye irritation May Cause Respiratory Irritation and gastrointestinal irritation.
		Corrosive to Metals	Cat 1	May be corrosive to metals

Precautionary Statements:	**Prevention:** Avoid breathing vapors, mists or sprays. Use only outdoors or in well-ventilated area. Wash thoroughly after handling. Wear protective gloves, chemical splash proof goggles, and face protection. Keep only in original container. **Response**: <u>If swallowed</u>: rinse mouth, Do NOT induce vomiting. Drink large amounts of water. Get medical attention immediately. Never give anything by mouth to an unconscious person. <u>If on skin (or hair)</u>: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical attention. <u>If inhaled</u>: Remove person to fresh air and keep comfortable for breathing. Call poison control center or doctor if you feel unwell. <u>If in eyes</u>: 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. Absorb spillage to prevent material damage. **Storage**: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in corrosive resistant container such as polypropylene or fiberglass. **Disposal**: Dispose of contents/containers in accordance with local/regional/national regulations (See Section 13 of SDS).

SECTION 3. COMPOSITION

Material	CAS #	EINECS #	%WT
Potassium Carbonate	584-08-7	209-529-3	43-45%
Water	7732-18-5	231-791-2	balance

See product label for guaranteed analysis.

SECTION 4. FIRST AID MEASURES

Ingestion:	Rinse mouth. Do NOT induce vomiting. Drink large amounts of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Skin Contact:	Wash with plenty of water. Take off contaminated clothing and wash it before reuse.
Inhalation:	Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Seek prompt medical attention. Call poison control center or doctor if you feel unwell.
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 mild irritation to the respiratory tract. Moderately irritating to the skin. May cause eye irritation, which if untreated, can be severe and permanent. Ingestion may cause irritation and burns from the mouth to the stomach. Ingesting massive amounts may cause ulcerations, vomiting, and death from shock.
Chronic Exposure Symptoms:	Not available

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.
Specific Hazards:	If exposed it acidic runoff, vigorous evolution of carbon dioxide can occur.
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: 2, Fire: 0, Reactivity: 0

SECTION 6. ACCIDENTAL RELEASE MEASURES

Precautions:	Isolate area. Keep unnecessary personnel away. Avoid splashing or spraying.
Protective Equipment:	Impervious gloves (rubber, neoprene or nitrile), chemical resistant suit. Side-shielded safety glasses or 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. 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. 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:	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 locked up. Store in corrosion resistant containers. Store in a well-ventilated, cool, dry place, away from sources of intense heat, or where freezing is possible. Keep away from acids. Large storage tanks should have secondary containment and electrically grounded. Keep containers tightly closed when not in use. Do not let product go below 35°F. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.
Incompatibilities:	Acids, Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION			
Component Exposure Limits:	Potassium Carbonate K_2CO_3	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. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.		
Personal Protective Equipment:	Eyes: Side-shielded safety glasses or chemical splash-proof goggles (where splashing is possible) Skin: Impervious gloves (rubber, neoprene or nitrile), long sleeved clothing. Chemically resistant apron is recommended. Respiratory: 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 exceed applicable concentration limits. In case of brief exposure or low concentration in air, use a respiratory filter device. In case of intense or prolonged exposure, use an SCBA device.		

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES			
Appearance:	Clear, colorless liquid		
Odor:	Odorless	**UEL / LEL:**	Not Applicable
Odor Threshold:	Not Available	**Vapor Pressure:**	9.7 - 15.3 mm Hg @ 20.5 C
pH:	12.5 to 13.5	**Density:**	1.49 g/cm^3
Melting/Freezing Point:	-5°C (-21°F)	**Solubility:**	Water
Boiling Point:	105-116°C (221-241°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:	Product is alkaline.
Chemical Stability:	Contact with acids can vigorously generate copious amounts of carbon dioxide and may create an asphyxiation hazard. Avoid contact with lime to prevent formation of corrosive potassium hydroxide (KOH).
Possibility of Hazardous Reactions:	Hazardous polymerization will not occur.
Conditions to avoid:	High temperatures, contact with acids
Incompatible Materials:	Acids, Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys
Hazardous Decomposition Products:	Carbon dioxide, carbon monoxide, potassium oxides
SECTION 11. TOXILOGICAL INFORMATION	
Acute Toxicity:	LD50 oral (rat): 1870 mg/kg LD50 oral (Mouse): 2570 mg/kg
Likely Routes of Exposure:	Inhalation of mist, ingestion, eye, and skin contact.
Symptoms and Signs of Exposure:	Eyes: May cause eye irritation, which if untreated, can be severe and permanent. Skin: Moderately irritating to the skin. Ingestion: Ingestion may cause irritation and burns from the mouth to the stomach. Ingesting massive amounts may cause ulcerations, vomiting, and death from shock. Inhalation: May cause mild irritation to the respiratory tract
Chronic Effects:	Not Available
Carcinogenetic:	None of this product's components are listed by ACGIH, OSHA, IARC, NIOSH, NTP or California Prop 65 as carcinogenic.
Mutagenicity:	Not Available
Reproductive Toxicity:	Not Available
SECTION 12. ECOLOGICAL INFORMATION	
Ecotoxicity:	In high concentrations, this product may be harmful to both terrestrial and aquatic plant or animal life. May increase pH of waterways and adversely affect aquatic life.
Other Adverse Effects:	Not harmful to ozone layer
Ecotoxicity:	LC50 - Daphnia magna (Water Flea) age <24 hr: 670 mg/L for 24 hrs, freshwater, static LC50 - Daphnia magna (Water Flea) age <24 hr: 650 mg/L for 48 hrs, freshwater, static LC50 - Pimephales promelas (Fathead Minnow) age 1-7 days: 940 mg/L for 24 hrs, freshwater, static LC50 - Pimephales promelas (Fathead Minnow) age 1-7 days: 820 mg/L for 48 hrs, freshwater, static LC50 - Pimephales promelas (Fathead Minnow) age 1-7 days: 510 mg/L for 96 hrs, freshwater, static

SECTION 13. DISPOSAL CONSIDERATIONS	
General Information:	As packaged, this product is a D002 corrosive waste per 40 CFR 261; applicable to wastes containing this product due to pH >12.5
Disposal Instructions:	Agronomical land application at recommended rates or dispose of in accordance with local/regional/national regulations. Dispose of in accordance with product characteristics at time of disposal. Containers may be triple rinsed and offered for recycling. Rinsate should be considered corrosive and treated as such.
SECTION 14. TRANSPORT INFORMATION	
This material is hazardous as defined by 49 CFR 172.101 by the US Department of Transportation	
Proper Shipping Name:	Corrosive liquids, n.o.s. (Potassium Carbonate)
Hazard Class:	8
UN Identification #:	1760
Packing Group:	II
Required Label(s):	Corrosive
Emergency Response Guide Number:	154
Note:	Not regulated by the Hazardous Materials Regulations and not subject to placarding when transported by motor vehicle or railcar in packaging constructed of materials that will not react dangerously with or be degraded by the corrosive material. – **49 CFR 173.154(d).**
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:	This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act (SARA) and is considered, under applicable definitions, to meet the following categories: Fire – No, Pressure – No, Acute – Yes, Chronic – No, Reactive – No
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:
Potassium Carbonate CAS No. 584-08-7	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:	12/27/2013, 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.