SAFETY DATA SHEET

Mixture

KALO	SDS Revision Date: 12/10/2014	SAFETY DATA SHEE	
SECTION 1	IDENTIFICATION		
Company Name	KALO, Inc.	24 HOUR EMERGENCY NUMBER/CHEMTREC (USA)	
Address	13200 Metcalf Ave, Suite 250	1-800-424-9300	
City, State, Zipcode	Overland Park, KS 66213	-	
Phone Numbers	1-800-255-5196 / 1-913-491-9146 (fax)	Poison Control Center (USA) 1-800-222-1212	
Website	www.kalo.com		
Product Identity	One-Ap XL		
Reference/Item Number	OAXL45		
Product Description	Ammonium sulfate, nonionic surfactant, deposition aid, antifoaming agent.		
Chemical Family	Dry water soluble spray adjuvant for glyphosates & residual herbicide combinations.		
SECTION 2	HAZARD(S) IDENTIFICATION		
SECTION E	Using the toxicity data listed in Sections 11 and 12, the product is labeled as follows:		
	[Acute Toxicity (oral) 4]:	HAZARD COMMUNICATION STANDARD (HCS) PICTOGRAM(
Н303:	May be harmful if swallowed.		
	[Acute Toxicity (dermal) 5]:		
Н313:	May be harmful in contact with skin.		
Н316:	[Skin Irritation 3]: Causes mild skin irritation.		
		. WA DAUNG	
	[Eye Irritation 2A]:	WARNING	
Н319:	Causes serious eye irritation.		
	[PREVENTION]:		
P264:	Wash hands, face and other affected areas thoroughly after handling.		
P270:	Do not eat, drink or smoke when using this product.		
	[RESPONSE]:		
P312:	Call a POISON CENTER or doctor/physician if you feel unwell.		
P332+313:	If skin irritation occurs; get medical advice/attention.		
P305+351+338:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do; continue rinsing.		
P337+313:	If eye irritation persists, get medical advice/attention.		
	[DISPOSAL]:		
P501:	Dispose of contents/container in accordance with local/national regulations.		
Sensitization:	Not a skin sensitizer.		
Comments Health:	Read all precautions of products being handled and follow the most restrictive language for all products to provide the safest work environment.		
Comments:	KEEP OUT OF REACH OF CHILDREN		
SECTION 3	COMPOSITION/INFORMATION ON INGREDIENTS		
	This product is labeled with the following GHS classifications, as it contains substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substance regulations. This product is a proprietary blend and the ingredients and mixture percentages are being withheld as confidential business information.		
	Ingredient/Chemical Designations	Weight % CA	

SDS for One-Ap XL 1 KALO, Inc.

Ammonium sulfate, block polymer of carbonyl diamine, polyoxyethylene polyoxypropylene, beta-hydroxy-tricarboxylic acid, polyacrylamide polymer, dimethylsiloxane 98.73

SECTION 4	FIRST AID MEASURES		
02011011	[DESCRIPTIONS]:		
General:	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.		
Inhalation:	Move individual to fresh air. If individual is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.		
Eyes:	Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses if present, after the first 5 minutes then continue rinsing call a poison control center or doctor for treatment advice.		
Skin:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.		
Ingestion:	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.		
Notes to Physician:	All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.		
Additional Information:	Have the product container or label with you when calling a poison control center or doctor, or going in for treatment. For emergency medical assistance call CHEMTREC 1-800-424-9300.		
	[MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED]:		
Overview:	No data available. See Section 2 for further details.		
Eyes:	Causes serious eye irritation.		
Skin:	May be harmful in contact with skin. Causes mild skin irritation.		
Ingestion:	May be harmful if swallowed.		
SECTION 5	FIRE FIGHTING MEASURES		
Extinguishing Media:	Foam, dry chemical, carbon dioxide, water spray or fog.		
Hazardous Combustion Products:	Hydrogen cyanide, carbon monoxide, and ammonia may be emitted.		
Explosion Hazards:	Dust suspended in air may create a potentially explosive environment.		
Firefighting Procedures:	Evacuate area and fight fire upwind a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure as should be kept cool with water spray if possible. Explosive vapor could form from ruptured containers. Dike and collect water used to fight fire to prevent environmental damage due to run-off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water off.		
Firefighting Equipment:	As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.		
SECTION 6	ACCIDENTAL RELEASE MEASURES		
	Contain material. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal.		
Small Spill:			
Small Spill: Large Spill:			
	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper		
Large Spill:	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal.		
Large Spill: Water Spill:	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal. Do not contaminate any body of water.		
Large Spill: Water Spill: Land Spill: Special Protective Equipment:	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal. Do not contaminate any body of water. Avoid run-off onto any adjacent land. Always wear proper protective equipment when handling this product.		
Large Spill: Water Spill: Land Spill: Special Protective Equipment: SECTION 7	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal. Do not contaminate any body of water. Avoid run-off onto any adjacent land. Always wear proper protective equipment when handling this product. HANDLING AND STORAGE		
Large Spill: Water Spill: Land Spill: Special Protective Equipment: SECTION 7 Handling:	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal. Do not contaminate any body of water. Avoid run-off onto any adjacent land. Always wear proper protective equipment when handling this product. HANDLING AND STORAGE Avoid breathing vapors and mists. Avoid prolonged contact with skin and eyes.		
Large Spill: Water Spill: Land Spill: Special Protective Equipment: SECTION 7 Handling: Storage:	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal. Do not contaminate any body of water. Avoid run-off onto any adjacent land. Always wear proper protective equipment when handling this product. HANDLING AND STORAGE Avoid breathing vapors and mists. Avoid prolonged contact with skin and eyes. Store in tightly closed in original labeled bag. Store in a dry, well-ventilated area away from ignition sources and incompatible materials.		
Large Spill: Water Spill: Land Spill: Special Protective Equipment: SECTION 7 Handling:	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal. Do not contaminate any body of water. Avoid run-off onto any adjacent land. Always wear proper protective equipment when handling this product. HANDLING AND STORAGE Avoid breathing vapors and mists. Avoid prolonged contact with skin and eyes.		
Large Spill: Water Spill: Land Spill: Special Protective Equipment: SECTION 7 Handling: Storage: SECTION 8	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal. Do not contaminate any body of water. Avoid run-off onto any adjacent land. Always wear proper protective equipment when handling this product. HANDLING AND STORAGE Avoid breathing vapors and mists. Avoid prolonged contact with skin and eyes. Store in tightly closed in original labeled bag. Store in a dry, well-ventilated area away from ignition sources and incompatible materials. EXPOSURE CONTROLS/PERSONAL PROTECTION When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for		
Large Spill: Water Spill: Land Spill: Special Protective Equipment: SECTION 7 Handling: Storage: SECTION 8 Engineering Controls: Personal Protective Equipment	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal. Do not contaminate any body of water. Avoid run-off onto any adjacent land. Always wear proper protective equipment when handling this product. HANDLING AND STORAGE Avoid breathing vapors and mists. Avoid prolonged contact with skin and eyes. Store in tightly closed in original labeled bag. Store in a dry, well-ventilated area away from ignition sources and incompatible materials. EXPOSURE CONTROLS/PERSONAL PROTECTION When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. Wear chemical goggles or shielded safety glasses (ANSI Z87.1 or approved equivalent) when handling and mixing product. Contact lenses should not be worn when working with chemicals. Wear protective clothing: long-sleeved shirt and long pants, shoes plus socks and chemical-resistant gloves. Always refer to the label of the pesticide(s) in the tank mix and follow the most restrictive requirements.		
Large Spill: Water Spill: Land Spill: Special Protective Equipment: SECTION 7 Handling: Storage: SECTION 8 Engineering Controls: Personal Protective Equipment Eyes and Face: Personal Protective Equipment	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal. Do not contaminate any body of water. Avoid run-off onto any adjacent land. Always wear proper protective equipment when handling this product. HANDLING AND STORAGE Avoid breathing vapors and mists. Avoid prolonged contact with skin and eyes. Store in tightly closed in original labeled bag. Store in a dry, well-ventilated area away from ignition sources and incompatible materials. EXPOSURE CONTROLS/PERSONAL PROTECTION When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. Wear chemical goggles or shielded safety glasses (ANSI Z87.1 or approved equivalent) when handling and mixing product. Contact lenses should not be worn when working with chemicals. Wear protective clothing: long-sleeved shirt and long pants, shoes plus socks and chemical-resistant gloves. Always refer to the label of the pesticide(s) in the tank		
Large Spill: Water Spill: Land Spill: Special Protective Equipment: SECTION 7 Handling: Storage: SECTION 8 Engineering Controls: Personal Protective Equipment Eyes and Face: Personal Protective Equipment Skin Protection: Personal Protective Equipment	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal. Do not contaminate any body of water. Avoid run-off onto any adjacent land. Always wear proper protective equipment when handling this product. HANDLING AND STORAGE Avoid breathing vapors and mists. Avoid prolonged contact with skin and eyes. Store in tightly closed in original labeled bag. Store in a dry, well-ventilated area away from ignition sources and incompatible materials. EXPOSURE CONTROLS/PERSONAL PROTECTION When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. Wear chemical goggles or shielded safety glasses (ANSI Z87.1 or approved equivalent) when handling and mixing product. Contact lenses should not be worn when working with chemicals. Wear protective clothing: long-sleeved shirt and long pants, shoes plus socks and chemical-resistant gloves. Always refer to the label of the pesticide(s) in the tank mix and follow the most restrictive requirements. Work in a well-ventilated area. Avoid exposure to airborne contaminants. Wear a NIOSH/MSHA approved dust mask or filter when vapors or dust are generated		
Large Spill: Water Spill: Land Spill: Special Protective Equipment: SECTION 7 Handling: Storage: SECTION 8 Engineering Controls: Personal Protective Equipment Eyes and Face: Personal Protective Equipment Skin Protection: Personal Protective Equipment Respiratory Protection: Personal Protective Equipment	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal. Do not contaminate any body of water. Avoid run-off onto any adjacent land. Always wear proper protective equipment when handling this product. HANDLING AND STORAGE Avoid breathing vapors and mists. Avoid prolonged contact with skin and eyes. Store in tightly closed in original labeled bag. Store in a dry, well-ventilated area away from ignition sources and incompatible materials. EXPOSURE CONTROLS/PERSONAL PROTECTION When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. Wear chemical goggles or shielded safety glasses (ANSI Z87.1 or approved equivalent) when handling and mixing product. Contact lenses should not be worn when working with chemicals. Wear protective clothing: long-sleeved shirt and long pants, shoes plus socks and chemical-resistant gloves. Always refer to the label of the pesticide(s) in the tank mix and follow the most restrictive requirements. Work in a well-ventilated area. Avoid exposure to airborne contaminants. Wear a NIOSH/MSHA approved dust mask or filter when vapors or dust are generated above the permissible limit above the TLV (see comments below).		
Large Spill: Water Spill: Land Spill: Special Protective Equipment: SECTION 7 Handling: Storage: SECTION 8 Engineering Controls: Personal Protective Equipment Eyes and Face: Personal Protective Equipment Skin Protection: Personal Protective Equipment Respiratory Protection: Personal Protective Equipment Respiratory Protection: Personal Protective Equipment Respiratory Protection:	chemical waste. Check local, state, and federal regulations for proper disposal. Contain material. If material is not contaminated with other materials the product may still be viable for use. Sweep up spilled material which is contaminated and place it and damaged unusable containers in a container appropriate for non-hazardous chemical waste. Check local, state, and federal regulations for proper disposal. Do not contaminate any body of water. Avoid run-off onto any adjacent land. Always wear proper protective equipment when handling this product. HANDLING AND STORAGE Avoid breathing vapors and mists. Avoid prolonged contact with skin and eyes. Store in tightly closed in original labeled bag. Store in a dry, well-ventilated area away from ignition sources and incompatible materials. EXPOSURE CONTROLS/PERSONAL PROTECTION When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. Wear chemical goggles or shielded safety glasses (ANSI Z87.1 or approved equivalent) when handling and mixing product. Contact lenses should not be worn when working with chemicals. Wear protective clothing: long-sleeved shirt and long pants, shoes plus socks and chemical-resistant gloves. Always refer to the label of the pesticide(s) in the tank mix and follow the most restrictive requirements. Work in a well-ventilated area. Avoid exposure to airborne contaminants. Wear a NIOSH/MSHA approved dust mask or filter when vapors or dust are generated above the permissible limit above the TLV (see comments below). Eye protection, long-sleeved shirt and long pants, shoes plus socks and chemical resistant gloves. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Avoid con		

SDS for One-Ap XL 2 KALO, Inc.

SECTION 9	PHYSICAL AND CHEMICAL I	PROPERTIES	
Appearance:	White free-flowing granule	Upper Flammability Limits:	Upper Explosive Limit: Not measured
Odor:	Slight chemical	Lower Flammability Limits:	Lower Explosive Limit: Not measured
Odor Threshold:	Not measured	Vapor Pressure (Pa):	Not measured
pH:	Not determined	Vapor Density:	Heavier than air
Melting/Freezing Points (°C):	Not measured	Solubility in Water:	Soluble
Initial Boiling Point/Range (°C):	No Established Limit (C) / No Established Limit (F)	Partition Co-efficient n-octanol/wate	er (Log Kow): Not measured
Flash Point and Method:	Difficult to burn or continue burning	Auto-Ignition Temperature (°C):	Not measured
Evaporation Rate (Ether=1):	Not measured	Decomposition Temperature:	Not measured
Flammability (Solid, Gas):	Not applicable	Viscosity (cSt):	Not measured
Specific Gravity @ 20°C	Not applicable	VOC %:	Not measured
Other Information:	No other relevant information.	Density:	52-57 lbs/ft³
SECTION 10	STABILITY AND REACTIVITY		
Stable:	Yes		
Hazardous Polymerization:	No		
Polymerization:	Will not occur		
Conditions To Avoid:	Heat, open flame, sparks and static electricity.		
lazardous Decomposition Prod:	Temperatures above 282°C causes a release of ammonia and s	ulfur trioxide.	
Incompatible Materials:	Strong oxidizers, bases, chlorates, and nitrates.		
SECTION 11	TOXICOLOGICAL INFORMAT	ION	
Acute Dermal LD ₅₀ :	Not determined.	-	
Acute Oral LD ₅₀ :	Not determined.		
Acute Inhalation LC ₅₀ :	Not determined.		
Eye Effects:	Causes moderate eye irritation.		
Skin Effects:	May cause mild skin irritation.		
Carcinogenicity:	Not listed in OSHA, NTP, IARC or ACGIH.		
Sensitization:	Not a contact sensitizer.		
SECTION 12	ECOLOGICAL INFORMATION	l	
Environmental Data:	Ecotoxicity information is not available. This product is not for us		
SECTION 13	DISPOSAL CONSIDERATION	S	
Disposal Method:	Completely empty contents of bag into spray application equipment. Do not reuse bag. Offer empty bag for recycling, or dispose of according to local, state, ar federal regulations.		
SECTION 14	TRANSPORT INFORMATION		
UN Number:	Not applicable		
UN Proper Shipping Name:	Not regulated		
Transport Hazard Class(es):	DOT (Domestic Surface Transportation):	IMO/IMDG (Ocean Transportation	<u>on):</u>
	DOT Proper Shipping: Not regulated	IMDG Proper Shipping Name: No	t regulated
	DOT Hazard Class: Not applicable	IMDG Hazard Class: Not applicab	le
	DOT Label: None	Sub Class: Not applicable	
	UN/NA Number: Not applicable	IMDG Packing Group: Not applica	ble
	DOT Packing Group CERCLA/DOT RQ: NA gal. / NA lbs.		
Special Precautions For User:	Not applicable		
Transport:	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable		
Environmental Hazards IMDG:	Marine Pollutant: No		
Packing Group:	Not applicable		

SECTION 15	REGULATORY INFORMATION UNITED STATES
311/312 Hazard Categories:	302: Acrylamide (impurity) <0.1%
	Fire: No / Sudden Release of Pressure: No / Reactive: No / Immediate (acute): Yes / Delayed (chronic): No
313 Reportable Ingredients:	313: Sulfuric acid diammonium <100 / 304: Acrylamide (impurity) <0.1%
TSCA Status:	Toxic Substance Control Act: All chemical substances in this product are listed in the TSCA inventory.
California Proposition 65:	Not listed.
SECTION 16	OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.