

## **Technical Dossier**

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## DOMOLISH ALS-LF

## Metal Safe Alkaline Cleaner

#### **DESCRIPTION AND USE**

**DOMOLISH ALS-LF** is a concentrated liquid blend of alkaline cleaners, detergents, wetting agents and solvents specifically formulated for the CIP cleaning of food processing equipment.

#### **PROPERTIES AND BENEFITS**

- Balanced blend of powerful degreasers, alkaline cleaners, detergents and highly effective wetting agents for maximum soil penetration and removal
- Rapidly attacks and removes protein soils, fats, grease, and cooked-on oils reducing clean up time
- Built-in water conditioners prevent hard water precipitates works in all waters
- Clear, free rinsing-leaves stainless steel bright and shiny
- Non-abrasive / Non-corrosive safe on all metals and plastics
- Easy to use, stable liquid formulation
- Environmentally friendly ingredients

#### **USE DIRECTIONS**

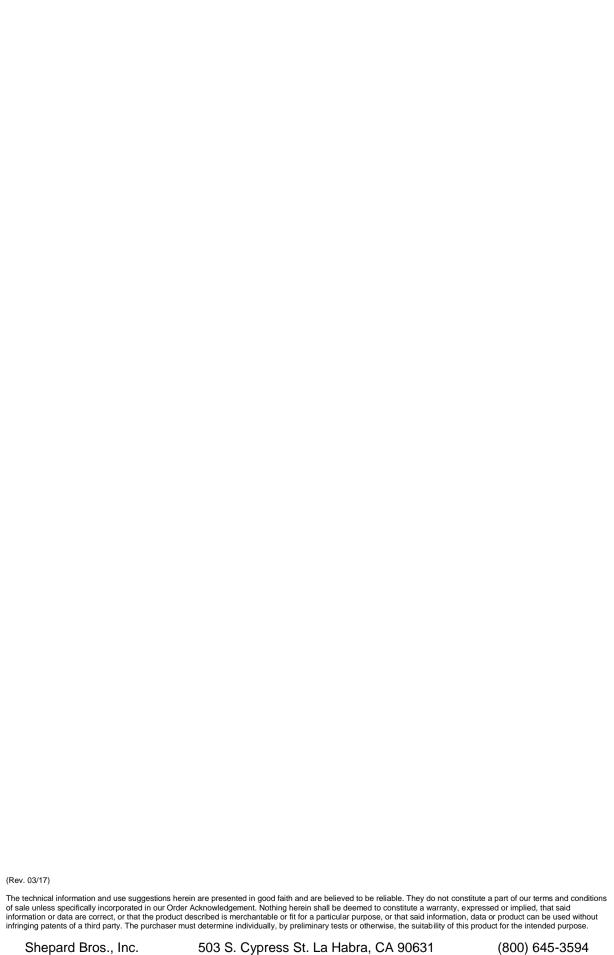
Typical use dilution for this product is 1-8 fluid ounces per 1 to 2 gallons. Consult your Shepard Bros., Inc. representative for specific use instructions and recommended dispensing equipment.

#### SAFE HANDLING

A Safety Data Sheet containing detailed information on the properties and safe handling of Shepard Bros., Inc. **DOMOLISH ALS-LF** is available on request and should be carefully reviewed prior to using this product.

(Rev. 03/17)

The technical information and use suggestions herein are presented in good faith and are believed to be reliable. They do not constitute a part of our terms and conditions of sale unless specifically incorporated in our Order Acknowledgement. Nothing herein shall be deemed to constitute a warranty, expressed or implied, that said information or data are correct, or that the product described is merchantable or fit for a particular purpose, or that said information, data or product can be used without infringing patents of a third party. The purchaser must determine individually, by preliminary tests or otherwise, the suitability of this product for the intended purpose.





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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: DMALSLF

Product Name: Domolish ALS-LF

Company Name: Shepard Bros. Inc. Phone Number:

503 S. Cypress St. +1 (562)697-1366

La Habra, CA 90631

Web site address: www.shepardbros.com

Emergency Contact: CHEMTREC +1 (800)424-9300

**Product Category:** 

#### 2. HAZARDS IDENTIFICATION

Acute Toxicity: Inhalation, Category 4

Serious Eye Damage/Eye Irritation, Category 2



GHS Signal Word: Warning

GHS Hazard Phrases: H332 - Harmful if inhaled.

H319 - Causes serious eye irritation.

**GHS Precautionary Phrases:** P271 - Use only outdoors or in a well-ventilated area.

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 - Wash hands thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases: P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position

comfortable for breathing. P312 - Call a POISON CENTER or doctor/physician if you feel

unwell.

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.

P332+313 - If skin irritation occurs, get medical advice/attention.

**GHS Storage and Disposal** 

Phrases:

No phrases apply.

Other Hazards: Causes mild skin irritation.

Potential Health Effects Chronic: May cause liver and kidney damage. Sophisticated modeling has clearly proven that 2-butoxyethanol does not build up in the body under any kinds of normal use. May

cause kidney injury. Repeated exposure may cause central nervous system damage.

May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the

blood), acidosis, and quick, shallow breathing.

**Inhalation:** May be harmful if inhaled. May cause dizziness. May cause respiratory tract burns. May

cause damage to the upper respiratory tract and lungs. May cause pulmonary edema.

Skin Contact: May cause skin irritation. Can cause chemical burn.

Eye Contact: May cause eye irritation. May cause burns to the eyes.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and

diarrhea. May cause burns to the digestive tract. May cause kidney damage.

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**GHS format** 



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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS # Hazardous Components (Chemical Name) Concentration

111-76-2 Ethylene glycol monobutyl ether < 5.0 %
112-34-5 Diethylene glycol monobutyl ether < 5.0 %
34590-94-8 Propanol, (2-Methoxymethylethoxy)- < 2.0 %

### 4. FIRST AID MEASURES

**Emergency and First Aid** 

**Procedures:** 

**In Case of Inhalation:** Remove from exposure and move to fresh air immediately. If breathing is difficult, give

oxygen. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask. Get medical attention immediately.

In Case of Skin Contact: Flush skin with plenty of water for at least 15 minutes while removing contaminated

clothing and shoes. Gently wash with plenty of soap and water. Wash contaminated clothing separately before reuse. Get medical aid if irritation develops or persists.

In Case of Eye Contact: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and

lower eyelids. Remove contact lenses, if present and easy to do after 5 minutes and continue rinsing for an additional 15 minutes. Get medical aid if irritation develops or

persists.

**In Case of Ingestion:** Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or

water. Never give anything by mouth to an unconscious person. Get medical aid

immediately.

**Signs and Symptoms Of** 

**Exposure:** 

To the best of our knowledge, the chemical, physical, and toxicological properties have

not been thoroughly investigated.

**Note to Physician:** Treat symptomatically and supportively. Show this safety data sheet to the doctor in

attendance.

#### 5. FIRE FIGHTING MEASURES

Flash Pt: 150.00 F Method Used: Pensky-Marten Closed Cup

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: NA

Suitable Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Fire Fighting Instructions: As in any fire, wear a self-contained breathing apparatus in pressure-demand,

MSHA/NIOSH approved (or equivalent), and full protective gear. Containers can build up pressure if exposed to heat (fire). Use water spray to keep fire-exposed containers cool.

Use water with caution and in flooding amounts.

Flammable Properties and

Hazards:

High temperatures and fire conditions can result in the formation of carbon monoxide

and carbon dioxide, and oxides of: sodium, phosphorus, potassium.

**Hazardous Combustion** 

High temperatures and fire conditions can result in the formation of carbon monoxide

**Products:** and carbon dioxide, and oxides of: sodium, phosphorus, potassium.

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## 6. ACCIDENTAL RELEASE MEASURES

Protective Precautions, Protective Equipment and Emergency Procedures: Use proper personal protective equipment as indicated in Section 8.

Environmental Precautions:

Do not let product enter drains, sewers, watersheds or water systems.

Steps To Be Taken In Case Material Is Released Or Spilled: Provide ventilation. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Contain spill using an inert diking material. Transfer material into an approved container for possible recovery and reuse or for disposal. Neutralize residual

product with a weak acid, such as acetic acid.

#### 7. HANDLING AND STORAGE

Precautions To Be Taken in Handling:

Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid

ingestion and inhalation. Wash thoroughly after handling. Remove contaminated clothing

and wash before reuse.

Precautions To Be Taken in

Storing:

Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from sources of ignition. Keep away from oxidizing agents. Store in a tightly closed container. Keep container closed when not in use. Protect containers against damage.

Other Precautions: Handle in accordance with good industrial hygiene and safety practices. Keep out of

reach of children.

8	<b>EXPOSURE CONTROL</b>	S/PERSONAL	PROTECTION
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CAS	S #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limit
1	11-76-2	Ethylene glycol monobutyl ether	PEL: 50 ppm	TLV: 20 ppm	No data.
1	12-34-5	Diethylene glycol monobutyl ether	No data.	No data.	No data.
34	590-94-8	Propanol, (2-Methoxymethylethoxy)-	PEL: 100 ppm	TLV: 100 ppm	No data.
				STEL: 150 ppm	

CAS # Chemical Name Jurisdiction Recommended Exposure Limits Notations

111-76-2 Ethylene glycol monobutyl NIOSH TWA: 5 ppm

ether

34590-94-8 Propanol, NIOSH TWA: 600 mg/m3 (100 ppm) Skin Absorption

(2-Methoxymethylethoxy)- STEL: 900 mg/m3 (150 ppm)

Respiratory Equipment

(Specify Type):

Avoid breathing vapors and mists. Use a NIOSH/MSHA approved respirator, with a full-facepiece or a full-facepiece respirator with organic vapor cartridges when

concentrations are unknown. Consult respirator manufacturer to determine appropriate

type equipment for given application.

Eye Protection: Wear chemical splash goggles and a full-face shield where there is potential for eye

contact.

**Protective Gloves:** Wear appropriate protective clothing to prevent skin exposure. Rubber or neoprene

gloves.

Other Protective Clothing: Wear appropriate protective clothing to prevent skin exposure. Chemical resistant apron.

Rubber boots.

**Engineering Controls** 

(Ventilation etc.):

Use adequate mechanical or local exhaust ventilation to minimize exposure levels, particularly in areas where the air contacts open process equipment. Facilities storing or

utilizing this material should be equipped with an eyewash facility and a safety shower.

utilizing this material should be equipped with an eyewash lacility and a salety should

Work/Hygienic/Maintenance

Practices:

Handle in accordance with good industrial hygiene and safety practice.

its



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States: [ ] Gas [ X ] Liquid [ ] Solid

**Appearance and Odor:** Appearance: Transparent. Yellowish. Liquid.

Odor: Mild solvent.

pH: 7.5 - 8.0Melting Point: < 32.00 F</li>Boiling Point: > 212.00 F

Flash Pt: 150.00 F Method Used: Pensky-Marten Closed Cup

Evaporation Rate: NA

Flammability (solid, gas): No data available.

Explosive Limits: LEL: No data. UEL: No data.

NA

Vapor Pressure (vs. Air or

mm Hg):

Vapor Density (vs. Air = 1): NA
Specific Gravity (Water = 1): 1.06
Density: NA
Bulk density: NA

Solubility in Water: Complete

Saturated Vapor NA

Concentration:

Octanol/Water Partition No data.

Coefficient:

**Percent Volatile:** NA VOC / Volume: NA NA **HAP / Volume: Autoignition Pt:** NA **Decomposition Temperature: NA** Viscosity: NA Particle Size: NA **Heat Value:** NA **Corrosion Rate:** NA

Molecular Formula & Weight: Proprietary Mixture 0.0

## 10. STABILITY AND REACTIVITY

Reactivity: High temperatures and fire conditions can result in the formation of carbon monoxide

and carbon dioxide, and oxides of: sodium, phosphorus, potassium.

Stability: Unstable [ ] Stable [ X ]

**Conditions To Avoid -** High temperatures, Ignition sources, Incompatible materials.

Instability:

Incompatibility - Materials To Strong oxidizing agents, Strong acids, Alkaline materials.

Avoid:

Hazardous Decomposition or High temperatures and fire conditions can result in the formation of carbon monoxide

Byproducts: and carbon dioxide, and oxides of: sodium, phosphorus, potassium, When a confined

space entry must be made, even into an empty tank, be sure to follow all appropriate

confined entry procedures.

Possibility of Hazardous Will occur [ ] Will not occur [ X ]

Reactions:

Conditions To Avoid - No data available.



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#### **Hazardous Reactions:**

## 11. TOXICOLOGICAL INFORMATION

**Toxicological Information:** Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information available.

Neurotoxicity: No information available. No information available.

Teratogenicity: No information available. Reproductive Effects: No data available. Mutagenicity: No information available. Neurotoxicity: No data available.

Other Studies: CAS# 111-76-2:

Acute toxicity, LC50, Inhalation, Rat, 450.0 ppm, 4 H.

Acute toxicity, LD50, Oral, Rat, 470.0 mg/kg Acute toxicity, LD50, Skin, Rabbit, 220.0 mg/kg.

Other Studies: CAS# 112-34-5:

Acute toxicity, LD50, Oral, Rat, 5660 mg/kg.

**Irritation or Corrosion:** Other Studies: CAS# 111-76-2:

Standard Draize Test, Eyes, Species: Rabbit, 100.0 mg, 24 H.

Other Studies: CAS# 112-34-5:

Standard Draize Test, Eyes, Species: Rabbit, 20.0 mg, 24 H.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

### 12. ECOLOGICAL INFORMATION

General Ecological

Information:

In soil and water, this chemical is highly mobile and undergoes aerobic biodegradation.

Results of PBT and vPvB

assessment:

Other Studies: CAS# 111-76-2:

LC50, Water Flea (Daphnia magna), 1720 mg/l, 24 H

LC50, Common Shrimp, Sand Shrimp (Crangon crangon), 775000 ug/l, 96 H LC50, Amphipod (Chaetogammarus marinus), young organism(s), 1000 mg/l, 24 H.

Persistence and Degradability: Physical: According to a model of gas/particle partitioning of semivolatile organic compounds in the atmosphere, diethylene glycol mono-n-butyl ether, which has a measured vapor pressure of 0.06 mm Hg at 25 deg C, will exist solely as a vapor in the

ambient atmosphere. Vapor-phase diethylene glycol mono-n-butyl ether is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be about 10 hours. Alcohols and ethers do not

absorb UV light in the environment.

Other: Diethylene glycol mono-n-butyl ether is not expected to volatilize from water surfaces based on an estimated Henry's Law constant of 1.3X10-8 atm-cu m/mole,

calculated from experimental values for vapor pressure and water solubility.

**Bioaccumulative Potential:** An estimated BCF value of 2.5 was calculated for ethylene glycol mono-n-butyl ether,

using an experimental log Kow of 0.83 and a recommended regression-derived equation. According to a recommended classification scheme, this BCF value suggests that

bioconcentration in aquatic organisms is low.

Mobility in Soil: TERRESTRIAL FATE: Based on a recommended classification scheme, an estimated

Koc value of 67,, determined from an experimental log Kow and a recommended regression-derived equation, indicates that ethylene glycol mono-n-butyl ether is

expected to have high mobility in soil.



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## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** 

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Observe all federal, state, and local environmental regulations.

RCRA P-Series: None listed. RCRA U-Series: None listed.

## 14. TRANSPORT INFORMATION

## LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Not Regulated.

DOT Hazard Class: UN/NA Number:

## 15. REGULATORY INFORMATION

#### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS#	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
111-76-2	Ethylene glycol monobutyl ether	No	No	Yes-Cat. N230
112-34-5	Diethylene glycol monobutyl ether	No	No	Yes-Cat. N230
34590-94-8	Propanol, (2-Methoxymethylethoxy)-	No	No	No

#### This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

This material meets the EFA mazard Categories defined for SARA Title in Sections 311/312 as indicated.					
[ ] Yes [X] No	Explosive	[X] Yes [ ] No	Acute toxicity (any route of exposure)		
[ ] Yes [X] No	Flammable (gases, aerosols, liquid, or solid)	[X] Yes [ ] No	Skin Corrosion or Irritation		
[ ] Yes [X] No	Oxidizer (liquid, solid or gas)	[X] Yes [ ] No	Serious eye damage or eye irritation		
[ ] Yes [X] No	Self-reactive	[ ] Yes [X] No	Respiratory or Skin Sensitization		
[ ] Yes [X] No	Pyrophoric (liquid or solid)	[ ] Yes [X] No	Germ cell mutagenicity		
[ ] Yes [X] No	Pyrophoric gas	[ ] Yes [X] No	Carcinogenicity		
[ ] Yes [X] No	Self-heating	[ ] Yes [X] No	Reproductive toxicity		
[ ] Yes [X] No	Organic peroxide	[ ] Yes [X] No	Specific target organ toxicity (single or repeated exposure)		
[ ] Yes [X] No	Corrosive to metal	[ ] Yes [X] No	Aspiration Hazard		
[ ] Yes [X] No	Gas under pressure (compressed gas)	[ ] Yes [X] No	Simple Asphyxiant		
[ ] Yes [X] No	In contact with water emits flammable gas	[ ] Yes [X] No	(Health) Hazard Not Otherwise Classified (HNOC)		
[ ] Yes [X] No	Combustible Dust				
[ ] Yes [X] No	(Physical) Hazard Not Otherwise Classified (HNOC)				
CAS#	Hazardous Components (Chemical Name)	Other US E	PA or State Lists		
111-76-2	Ethylene glycol monobutyl ether	TSCA: Yes	- Inventory; CA PROP.65: No; CA TAC, Title 8:		
	, ,	TAC: Cat. I	la, Title 8		
112-34-5	Diethylene glycol monobutyl ether	TSCA: Yes	- Inventory; CA PROP.65: No; CA TAC, Title 8:		
0.0	Ziemiyieme giyeei memobaliyi dalal	Yes - Cat.			
34590-94-8	Propagal (2 Mothayymathylathayy)		Inventory 8A DAID: CA DDOD 65: No: CA TAC		
34390-94-0	Propanol, (2-Methoxymethylethoxy)-	ISCA. 168	- Inventory, 8A PAIR; CA PROP.65: No; CA TAC,		

Title 8: Title 8



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## **16. OTHER INFORMATION**

**Revision Date:** 06/10/2020

Preparer Name: Jose Arias (562)697-1366

Hazard Rating System:

Flammability Instability
Health

NFPA: Special Hazard

Additional Information About No data available.

**This Product:** 

**Company Policy or** 

Disclaimer:

Information presented herein is believed to be accurate and reliable to the best of our knowledge. However, we make no warranty or merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process. Users should make their own investigations to determine the suitability of the information

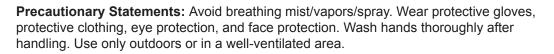
for their particular purposes.

# **DOMOLISH ALS-LF**

# (Formerly Dissolve ALS-LF) METAL SAFE CLEANER

#### **WARNING**

Harmful if inhaled. Causes mild skin irritation. Causes serious eye irritation.





IF ON SKIN: If skin irritation occurs, get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER of a doctor if you feel unwell.

SPECIFIC TREATMENT: See Section 4 of the SDS to reference supplemental first aid instruction if immediate measures are required.

**Storage/Disposal:** Dispose of contents and containers in accordance with local, regional, national, and international regulations.

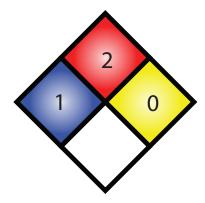
**Supplemental Information:** This product may be fatal if swallowed in large amounts. Take proper precautions, especially when using this product in an enclosed or semienclosed area.

KEEP OUT OF REACH OF CHILDREN.



CONTAINS: DIETHYLENE GLYCOL MONOBUTYL ETHER, DIPROPYLENE GLYCOL METHYL ETHER, GLYCOL ETHER EB AVOID CONTACT WITH SKIN OR EYES.

Contact your Shepard Bros., Inc. representative for more specific use instructions and recommended dispensing equipment.



Read safety data sheets for more detailed information.

PROPER SHIPPING NAME: NOT REGULATED.



SHEPARD BROS., INC. 503 S. CYPRESS ST. La Habra, CA 90631 • (562) 697-1366

PRODUCT ID:

BATCH NO.:

**NET CONTENTS:** 



503 S. Cypress St., La Habra, CA 90631

phone: 562/697-1366 fax: 562/697-5786

January 1, 2020

Based on current U.S. Food and Drug Administration Guidelines, this Letter of Guarantee certifies that the Shepard Bros., Inc. product, **Domolish ALS-LF**, is safe and suitable as a general cleaning agent on all surfaces or for use with steam or mechanical cleaning devices in all departments of establishments processing food for human or animal consumption.

When used according to the product label directions and in accordance with Good Manufacturing Practice this product will have no deleterious effects on the foods being processed.

This product must be used, handled and stored in a manner that will not adulterate food products. Before using this compound, food products and packaging materials must be removed from the room or carefully protected. After using this compound, surfaces must be thoroughly rinsed with potable water. This product must always be used according to applicable label directions.

Sincerely,

Jose Arias

Director of Compliance & Regulatory Affairs

Shepard Bros., Inc.



## Shepard Bros., Inc. 503 S. Cypress St. La Habra, CA 90631 SHEPARD BROS. (562) 697-1366

**Domolish ALS-LF** Organophosphonate SBRTK0159Z

- 1. Fill sample vial to 5 mL with system water (blank).
- 2. Add one OP Tablet (AD1582) crush and mix well by swirling. A green color will develop.
- 3. Add OP titrant (AD1596) drop-wise while swirling, until the sample color changes from green to purple. Record the number of drops. This is your blank. A gray intermediate color will develop. Keep titrating to the purple end point.
- 4. Add 1 mL of sample water with syringe. Dilute to 5 mL with system water.
- 5. Repeat steps 2 and 3. Record the number of drops. This is your sample.
- 6. Results:

**STEP 1:** Calculate number of drops by subtracting: Number of drops = Subtract number of drops from sample (Step 5) from number of drops from water (BLANK)(Step 3).

#### STEP 2:

number of drops  $x \cdot 0.0345 = FI$ . oz. per gallon number of drops  $x \cdot 0.0271 = percent product in solution by volume$ number of drops x 271 = ppm product in solution by volume

NOTE: For accuracy and consistency hold the dropper bottle in a vertical position during the titration.

Rev 05/2020