Safety Data Sheet

Issue Date: 31-Oct-2018 **Revision Date:** 20-Nov-2018 **Version** 1

1. IDENTIFICATION

Product identifier

Product Name Ala Quat

Other means of identification

SDS # BIR-052

Product Code I00095
UN/ID No UN1903

Recommended use of the chemical and restrictions on use

Recommended Use An acidified quaternary ammonium sanitizer approved for use in dairy and food processing plants.

Details of the supplier of the safety data sheet

Supplier Address
Birko Corporation
9152 Yosemite Street
Henderson, CO 80640-8027
www.birkocorp.com

Emergency telephone number

Company Phone Number Phone: 303-289-1090 or 1-800-525-0476
Fax: 303-289-1190
Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Appearance Clear, colorless to pink liquid **Physical state** Liquid **Odor** Slight sour

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1

Signal Word
Danger

Hazard statements
Harmful if inhaled
Causes severe skin burns and eye damage

Precautionary Statements - Prevention
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Do not breathe dusts or mists
Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing
Immediately call a POISON CENTER or doctor
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other hazards
Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Phosphoric Acid	7664-38-2	25-35
Alkyl dimethyl benzyl ammonium chloride (C12-16)	68424-85-1	1-5
Decyldimethyloctylammonium Chloride	32426-11-2	1-5
N,N-Dioctyl-N, N-dimethylammonium Chloride	5538-94-3	1-5
Ethyl Alcohol	64-17-5	1-5
Didecyldimethylammonium chloride	7173-51-5	1-5

**If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret. **

4. FIRST AID MEASURES

Description of first aid measures

General Advice Provide this SDS to medical personnel for treatment.

Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

Skin Contact Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a poison center or doctor/physician.

Inhalation Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor/physician.

Ingestion Rinse mouth. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms Causes severe skin burns and eye damage. Harmful if inhaled.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray (fog). Carbon dioxide (CO2). Foam blanket.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical
Acid reacts with most metals to release hydrogen gas which can form explosive mixtures with the air.

Hazardous combustion products Carbon dioxide (CO2). Carbon monoxide. Nitrogen oxides (NOx). Propylene Oxides (POx).

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Wear protective gloves/protective clothing and eye/face protection. Use only outdoors or in a well-ventilated area. Do not breathe dusts or mists. Wash face, hands and any exposed skin thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials Alkali metals. Strong alkalis. Anionic surfactants. Metal salts. Oxidizers. Acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Phosphoric Acid 7664-38-2	STEL: 3 mg/m^3 TWA: 1 mg/m^3	TWA: 1 mg/m^3 (vacated) TWA: 1 mg/m^3 (vacated) STEL: 3 mg/m^3	IDLH: 1000 mg/m^3 TWA: 1 mg/m^3 STEL: 3 mg/m^3
Ethyl Alcohol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m^3 (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m^3	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m^3

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear eye/face protection. Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection Wear protective gloves and protective clothing. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	Clear, colorless to pink liquid	**Odor**	Slight sour
Color	Clear, colorless to pink	**Odor Threshold**	Not determined

Property	Values	Remarks • Method
pH	2.0 (1% solution)	
Melting point / freezing point	Not determined	
Boiling point / boiling range	Not determined	
Flash point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid - not applicable	
Flammability Limit in Air		
Upper flammability or explosive limits	Not determined	
Lower flammability or explosive limits	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Relative Density	1.15	
Water Solubility	100%	
Solubility in other solvents	Not determined	

Property	Values	Remarks • Method
Partition Coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	

Oxidizing Properties Not determined

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to Avoid
Keep out of reach of children.

Incompatible materials
Alkali metals. Strong alkalis. Anionic surfactants. Metal salts. Oxidizers. Acids.

Hazardous decomposition products
Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx). Propylene Oxides (POx). Acid reacts with most metals to release hydrogen gas which can form explosive mixtures with air.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Inhalation Do not inhale.

Ingestion Do not ingest.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Phosphoric Acid 7664-38-2	= 1530 mg/kg (Rat)	= 2740 mg/kg (Rabbit)	> 850 mg/m^3 (Rat) 1 h
Alkyl dimethyl benzyl ammonium chloride (C12-16) 68424-85-1	= 426 mg/kg (Rat)	-	-
Alcohols, C9-11 ethoxylated 68439-46-3	= 1378 mg/kg (Rat) = 1400 mg/kg (Rat)	> 2 g/kg (Rabbit)	-
Didecyldimethylammonium chloride 7173-51-5	= 84 mg/kg (Rat)	-	-
Ethyl Alcohol 64-17-5	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Ethanol has been shown to be carcinogenic in long-term studies only when consumed as an alcoholic beverage.

Chemical name	ACGIH	IARC	NTP	OSHA
Ethyl Alcohol 64-17-5	A3	Group 1	Known	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
NTP (National Toxicology Program)
Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

Oral LD50 2,322.66 mg/kg
Dermal LD50 7,157.10 mg/kg
ATEmix (inhalation-dust/mist) 1.45 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity
Toxic to aquatic life with long lasting effects.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Phosphoric Acid 7664-38-2		3 - 3.5: 96 h Gambusia affinis mg/L LC50	4.6: 12 h Daphnia magna mg/L EC50
Ethyl Alcohol 64-17-5		100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static	10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static 9268 - 14221: 48 h Daphnia magna mg/L LC50

Persistence/Degradability
Not determined.

Bioaccumulation
There is no data for this product.

Mobility

Chemical name	Partition coefficient
Ethyl Alcohol 64-17-5	-0.32

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical name	California Hazardous Waste Status
Phosphoric Acid 7664-38-2	Corrosive
Ethyl Alcohol 64-17-5	Toxic Ignitable

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No UN1903
Proper Shipping Name Disinfectant, liquid, corrosive, n.o.s. (Quaternary Ammonium Compounds)
Hazard class 8
Packing Group II

IATA

UN number UN1903
Proper Shipping Name Disinfectant, liquid, corrosive, n.o.s. (Quaternary Ammonium Compounds)
Transport hazard class(es) 8
Packing Group II

IMDG

UN number UN1903
Proper Shipping Name Disinfectant, liquid, corrosive, n.o.s. (Quaternary Ammonium Compounds)
Transport hazard class(es) 8
Packing Group II
Marine Pollutant Yes

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Phosphoric Acid	X	X	X	X	X	X	X	X
Alkyl dimethyl benzyl ammonium chloride (C12-16)	X	X	X	X	X	X	X	X
Decyldimethyloctylammonium Chloride	X	X	X		X	X	X	
Alcohols, C9-11 ethoxylated	X	X			X	X	X	X
Didecyldimethylammonium chloride	X	X	X	X	X	X	X	X
N,N-Dioctyl-N, N-dimethylammonium Chloride	X	X	X		X	X	X	X
Ethyl Alcohol	X	X	X	X	X	X	X	X

Legend:

TSCA *- United States Toxic Substances Control Act Section 8(b) Inventory*

DSL/NDSL *- Canadian Domestic Substances List/Non-Domestic Substances List*

EINECS/ELINCS *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

ENCS *- Japan Existing and New Chemical Substances*

IECSC *- China Inventory of Existing Chemical Substances*

KECL *- Korean Existing and Evaluated Chemical Substances*

PICCS *- Philippines Inventory of Chemicals and Chemical Substances*

AICS *- Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Phosphoric Acid 7664-38-2	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phosphoric Acid	5000 lb			X

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Ethyl Alcohol - 64-17-5	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Phosphoric Acid 7664-38-2	X	X	X
Ethyl Alcohol 64-17-5	X	X	X

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	2	0	1	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical hazards**	**Personal Protection**
	2	0	1	J

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Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet