

# Material Safety Data Sheet

**Manufacturer's Name:** Alken-Murray Corporation

**Manufacturer's Address:** P.O. Box 400, New Hyde Park, New York 11040

T: 540-636-1236 Fax: 540-636-1770

E-mail: [msds@alken-murray.com](mailto:msds@alken-murray.com)

**Manufacturer's Cage Code:** 2A384

**For chemical emergency - spill, leak, fire or accident** - call CHEMTREC - day or night - (800) 424-9300 or outside the USA (703) 527-3887

## NFPA Hazard Ratings:

0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe

Health= <b>1</b>	Fire= <b>0</b>	Reactivity= <b>0</b>
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## Canadian WHMIS Classification **D 2 B**

All ingredients on Canadian DSL and USA TSCA lists

### 1. Product Identification

<b>Synonyms:</b>	None
<b>CAS Number:</b>	Not applicable to mixtures
<b>Chemical Formula:</b>	Proprietary Mixture
<b>Formula ID Codes:</b>	5100

### 2. Composition/Information on Ingredients

Chemical Name	CAS Number	OSHA PEL	ACGIH TLV	% Weight

Water	7732-18-5	NDA	NDA	> 75
Sodium metasilicate	6834-92-0	5 mg/M3	10 mg/M3	11.9
Oxygenated organic/inorganic salts solution	NA	NDA	NDA	5 - 7
Viable bacterial cultures	NA	NDA	NDA	< 1
Alkyl ether of corn sugar (C8 - C10)	68515-73-1	NDA	NDA	2 - 4
D-Glucopyranose, oligomeric, C10 - C16, alkyl glycosides	110615-47-9	NDA	NDA	3 - 5
Tetrasodium EDTA	64-02-8	NDA	NDA	1 - 2
Hydrochloric acid	7647-01-0	7 mg/M3	7.5 mg/M3	1 - 2
Styrene, acrylic acid polymer, ammonium salt	35209-54-2	NDA	NDA	1 - 2
Fragrance	NA	NDA	NDA	< 1
Sodium hydroxide	1310-73-2	2 mg/M3	2 mg/M3	< 1
<i>Yucca schidigera</i> leaf extract	223749-05-1	NDA	NDA	< 1
Dipropylene glycol	25265-71-8	NDA	NDA	< 1
1,2-benzisothiazolin-3-one	2634-33-5	NDA	NDA	< 1
Methyl anthranilate	134-20-3	NDA	NDA	< 1

*Ingredients not precisely identified are proprietary and/or non-hazardous per 29 CFR 1910-1200 and/or represent less than 1%... All chemical ingredients appear on the EPA TSCA inventory.*

### 3. Hazards Identification

**Emergency Overview:** The microorganisms used in this product are Class 1 microorganisms, as defined by the Centers for Disease Control as unlikely to cause disease in healthy humans or animals. However, persons with compromised immune systems should avoid contact with open wounds and/or breathing dust or mist from manufacturing processes. These organisms are susceptible to many commonly used antibiotics, and Alken-Murray is willing to supply antibiotic sensitivity information to any doctor or import health authority requesting it. Because Sodium Lauryl Sulfate and other surfactants are included, primary skin irritation under 29CFR 1910.1200 is considered possible, as is true of many shampoos and soaps that contain the same surfactants.

**Potential Health Effects:**

- **Signs and Symptoms of Acute Overexposure:** May cause skin irritation. May cause burns to eyes.
- **Signs and Symptoms of Chronic overexposure:** Prolonged skin contact may cause dermatitis and skin sensitization. May cause eye burns.
- **Medical Conditions Generally Aggravated by Exposure:** Sensitive skin.
- **Ingestion:** Relative to other materials, a single dose of this product is rarely toxic by ingestion. Irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion.

#### 4. First Aid Measures

- **Inhalation:** Remove victim to fresh air
- **Ingestion:** Give victim water or milk to drink to dilute the product. Induce vomiting only if advised by physician or poison control center.
- **Skin Contact:** Remove contaminated clothing and footwear. Wash skin with soap and water. Wash clothing before reuse.
- **Eye Contact:** Immediately flush eyes with water for 15 minutes. Get medical attention.
- **Note to Physician:** Treat symptomatically.

#### 5. Fire Fighting Measures

**Flash Point:** Non-flammable (Method ASTM D-93)

**Flammability Limits:** NA

**Autoignition temp:** NA

**Fire Extinguishing Media:** Suitable for surrounding fire.

**Special Fire-Fighting Information:** Wear NIOSH-approved SCNA. Use water spray to cool containers

**Unusual Fire and Explosion Hazards:** Sodium metasilicate (17%) is corrosive to aluminum, galvanized iron and zinc and may generate flammable hydrogen gas.

#### 6. Accidental Release Measures

If container is punctured and material is released: Flush small amount to drain. Recover large spill for use if possible, or transfer to suitable container for disposal. Use absorbent to clean up. Wash down spill area with soap and water. Product is biodegradable and contains no phosphates.

#### 7. Handling and Storage

Store in cool dry place, , away from children, food items and potable water. Keep container closed when not in use. Avoid storage of product above 110 F and keep from freezing. Keep out of direct sunlight. Always wash hands with soap and water before handling food or

smoking. Use good hygiene practices when working with any chemical mixture.

## 8. Exposure Controls/ Personal Protection

- **Ventilation System:** Yes **Local Exhaust:** Yes **Forced Exhaust:** No
- **Personal Respirators (NIOSH Approved):** None require in normal use. Avoid creating aerosols in confined space.
- **Skin Protection:** Long sleeved clothing and rubber gloves
- **Eye Protection:** Chemical safety goggles if applied indoors
- **Other Control Measures:** Wash hands & face before eating, drinking or smoking after handling product.

**ACGIH:** CAS# 130-73-2: 2 mg/m<sup>3</sup> (< 1% of formula); CAS # 7647-01-0: 7.5 mg/m<sup>3</sup>

**OSHA Final PELs:** NDA

**OSHA Vacated PELs:** NDA

## 9. Physical and Chemical Properties

- **Appearance and Color:** White to off-white opaque liquid
- **Odor:** Ammonia
- **Solubility in Water:** 99%
- **Specific Gravity:** 1.055 at 15 deg. C
- **pH:** 7.5 - 8.5
- **% volatile by volume @ 21C (70F):** Nil
- **Boiling Point:** 212 degrees F (100 degrees C)
- **Freezing Point:** 32 degrees F
- **Vapor Density (Air=1):** =water
- **Vapor Pressure (mm Hg):** = water
- **Evaporation Rate (Bu. Acetate=1):** = water

## 10. Stability and Reactivity

- **Stability:** Product is stable at ambient temperatures and atmospheric pressures
- **Hazardous Decomposition Products:** Small amounts of carbon monoxide and carbon dioxide.
- **Hazardous Polymerization:** will not occur.
- **Incompatibility:** Upon contact with sugars, the sodium metasilicate may react to form deadly carbon monoxide gas.
- **Conditions to Avoid:** Incompatible substances

## 11. Toxicological Information

- **Toxicological Data:**

**RTECS:** CAS # 7732-18-5: ZC0110000CAS# 6834-92-0: VV9275000/ CAS# 110615-47-9: NONE/ CAS# 68515-73-1:NONE/ Bacterial cultures: 1003657BA/ CAS# 64-02-

8: AH5075000/ CAS# 35209-54-2: 1005064OP / CAS# 1310-73-2: WB4900000/  
CAS# 25265-71-8: UB8765000 / Fragrance: 1002064FR/ CAS# 7647-01-0:  
MW4025000/ CAS# 6834-92-0: VV9275000/ CAS# 35209-54-2: 1005064OP/CAS#  
64-02-8: AH5075000/ CAS# 2634-33-5: DE462000, 1004600BE / CAS# 134-20-3:  
CB3325000 / CAS#223749-05-1:NONE

**LD50 /LC50: CAS# 7732-18-5: LD50= >90 mL/Kg / CAS# 6834-92-0:** Oral, rat, LD50 = 800 mg/Kg; Skin, rabbits - corrosive in 4 hr. exposure on moistened skin; **CAS# 6834-92-0:** Oral, rat, LD50 = 800 mg/Kg; Skin, rabbits - corrosive in 4 hr. exposure on moistened skin; / **CAS# 68515-73-1:** Oral, rat LD50 = 5,000 mg/Kg; Dermal, rabbit LD50 = 2 g/Kg / **CAS# 110615-47-9:** Oral, rat, LD50 = 5,000 mg/Kg / CAS# 64-02-8: moderately toxic. / **CAS# 7647-01-0:** inhalation mouse, LC50 = 1108 ppm/1H; inhalation, rat LC50 = 3124 ppm/1H; oral, rabbit: LD50 = 900 mg/kg / **CAS# 223749-05-1** (*Yucca schidigera*) - Oral, mouse, LC50 of a 70% solution = > 5000 mg/kg. / **CAS# 1310-73-2:** skin, rabbit: 500 mg/24H severe; eye rabbit: 50 ug/24H severe / **CAS 25265-71-8** eye-rabbit 510 mg skin-rabbit 500 mg/24H MLD; LD50 oral rat 14850 mg/kg; LD50 oral guinea pig 17600 mg/kg / **CAS# 2634-33-5**, oral, rat LD50 = 20 g/Kg / **CAS# 134-20-3:** Oral, rat LD50 = 3000 mg/kg, Oral, mouse LD50 = 3900 mg/kg, Oral LD50 Guinea pig: 2780 mg/kg; 24 hour skin rabbit: moderate

**Dermal & Eye Irritation Tests for the Proprietary "Oxygenated organic/inorganic salts Solution" - sold as [ALKEN® 896 BIOSTIMULANT](#)**

Acute dermal irritation study New Zealand white rabbits: A 20% solution (5 ml "Oxygenated organic/inorganic salts Solution" + 20 mL sterile, distilled water) was applied to intact & abraded skin one side, with sterile water applied to intact & abraded skin on other side of same animals to serve as controls.

Acute dermal irritation New Zealand white rabbits: PI = 0.0, Toxicity level IV

Acute eye irritation: A 20% solution (5 ml "Oxygenated organic/inorganic salts Solution" + 20 mL sterile, water) was introduced to one eye, while untreated eye was observed as a "control". Eyes were examined and graded at 24, 48 and 72 hours post treatment..

Acute eye irritation, :New Zealand white rabbits: PI=0.0, Toxicity IV

**Bacteria in this product:** Acute oral toxicity: Rats:LD50= > 5 grams/kg, no toxicity symptoms, no weight loss

Acute dermal toxicity: LD50 = > 5050 mg/Kg

Acute dermal irritation albino rabbits: PI = 0.0, Toxicity level IV

Acute eye irritation: PI = 0.0, Toxicity IV

Acute Inhalation, Rats LC50= >2.43 mg/L.

- **Carcinogenicity:** Ingredients are not listed as carcinogens by ACGIH, IARC, NIOSH, NTR, or OSHA.

## 12. Ecological Information

- **Environmental Fate:** This product is not likely to bio-concentrate, if mixed with water.
- **Environmental Toxicity:**

**Aquatic Ecotoxicity of Individual Ingredients:** Surfactants are potentially harmful to aquatic life **CAS# 68515-83-1:** *Poecilia reticulata* LC50/96H = > 100 mg/L; *Daphnia* EC50/48H = > 100 mg/L. / **CAS 7647-01-0:** Trout LC100 = 10 mg/L/24H, shrimp LC50=100 to 330 ppm, Starfish LC50=100 to 330 mg/L/48 H, Shore crab LC50 = 240 mg/L/48 H, Chronic plant toxicity = 100 ppm, fish toxicity LC50 = 862 mg/L. / **CAS# 2634-33-1**, 1,2 benzisothiazolin-3-one (<1%) is VERY toxic to aquatic organisms (Fish, LC50, 4 days exposure = 1.0 - 3.3 ppm. Crustaceans (*Daphnia magna*) EC50 immobilization = 2 days exposure 0.85 ppm. /

**Biodegradability:** Modified OECD screening tests indicate that surfactants, **CAS#**

**110615-47-9 & 6815-83-1** exceed the 70% dissolved oxygen content requirement for classification as "readily biodegradable". Their ready emulsification of petroleum hydrocarbons and related oils makes this formula that much more suitable for applications involving bioremediation of leaking storage tanks, containing crude petroleum or fuel oils. Surfactants AND polluted soil will biodegrade simultaneously, as long as adequate levels of supplemental oxygen, nitrogen and ortho-phosphate are provided to balance the high level of organic carbon present in TPH and these two biodegradable surfactants. **CAS# 2634-33-1** will biodegrade by 81.9% within 20 days Consider **Alken® Bio-Nutrient™ 3 or 4** as a source of supplemental ammonia-nitrogen and ortho-phosphate

### 13. Disposal Considerations

**RCRA Hazard Class (if discarded):** Neat, unused product is not considered a hazardous waste, according to RCRA regulations 40 CFR 261. . For proper disposal of used materials, an assessment must be completed to determine the proper waste management options permissible under applicable rules, regulations and/or laws governing client's location. Use until less than 1 inch remains in the container. Disinfect container with a 1% sodium hypochlorite solution, triple rinse with clean water, and pour rinse water to sewer. Then remove or deface product label to avoid confusion if pail or drum is later refilled. Clean, empty containers should be recycled or disposed of through an approved waste management facility.

### 14. Transportation Information

- **DOT Proper Shipping Name:** Not regulated as hazardous by DOT
- **DOT Shipping Class:** 55, scouring and washing compound
- **DOT Hazard Class:** None
- **UN Number:** NA
- **DOT Label:** The proper shipping name for UNREGULATED SHIPMENT via DOT and TDG is as follows: "Class 55 (Item 048580, sub 3): "Cleaning or washing compound NOI, liquid, in drums or pails".

### 15. Regulatory Information

- **TSCA:**(40CFR 710) All chemical ingredients are listed on the TSCA 8(b) inventory. None of the ingredients are on the Health and Safety Reporting List, are under Chemical Test rule, are listed under TSCA Section 12B, or have a SNUR under TSCA
- **CERCLA Reportable Quantity:** This product does NOT contain ingredients that have Reportable Quantity (RQ) requirements under US 40 CFR 117.302
- **Clean Air Act:** CAS 7647-01-0, hydrochloric acid, is listed as a hazardous air pollutant (HAP). This product does not contain any Class 1 or Class 2 ozone depletors, nor was it made with such chemicals.
- **Clean Water Act:** CAS 7647-01-0, hydrochloric acid, is listed as a hazardous substance under the CWA. None of the chemicals in this formula are listed as Priority Pollutants under CWA.
- **OSHA:** CAS 7647-01-0, hydrochloric acid, is considered highly hazardous by OSHA
- **SARA TITLE III:**

**Section 302/304 Extremely Hazardous Substances:** Section 302 (RQ) CAS 7647-

01-0: final RQ = 5000 lbs (2270 kg). Concentration is de minimus and neutral pH makes it exempt from spill-reporting.

**Section 311 Hazard Categorization:** Acute Health

**Section 313 Toxic Chemicals:** This material contains hydrochloric acid - CAS 7647-01-0 (1 - 2%) which is subject to the reporting requirements of Section 313 of SARA title III and 40 CFR Part 373, although neutral product pH cancels the requirement for reporting spills.

- **STATE Right to Know:** CAS 7647-01-0, Hydrochloric acid, at < 2%, is listed on the California, New Jersey, Florida, Pennsylvania, Minnesota and Massachusetts state right to know lists. Dipropylene glycol (< 1%), CAS# 25265-71-8 IS found on the Pennsylvania RTK list. Sodium hydroxide, CAS 1310-73-2, comprising < 1% of this product can be found on the following RTK lists: California, New Jersey, Florida, Pennsylvania, Minnesota & Massachusetts. Other ingredients NOT listed on California, Connecticut, Florida, Illinois, Louisiana, Maine, Massachusetts, Minnesota, New Jersey, New York, Pennsylvania, Rhode Island or Tennessee.
- **Not subject to California Proposition 65 labeling requirements**
- **CARB:** Product meets the low vapor pressure (LVP) exemption set by the California Air Resources Board for volatile organic compounds in consumer products (California Code of Regulations, Title 17, Article 2, Section 94510)
- **Canadian WHMIS** Class D2B. (Other toxic effects - for surfactants & imported LIVE microbial cultures). CAS# 1310-73-2 & 64-02-8 (combined at < 1%) normally add a "Class E" to products containing them, but the neutral pH of THIS product exempts it from this addition.
- **Canadian DSL:** All ingredients listed. Approved for sale in Canada
- **Canada's Ingredient Disclosure List:** Sodium hydroxide, CAS 1310-73-2, comprising < 1% of this product IS listed on the CIDL, but other ingredients are "NOT CONTROLLED". This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.
- **TDG Classification:** This product is not subject to "hazardous goods" descriptions and transport surcharges.

## 16. Other Information

**Reason for Revision:** Routine review & revision

Alken-Murray Corporation provides the information contained herein in good faith, in compliance with the Occupational Safety and Health Act of 1970, but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Alken-Murray warrants that this product is of merchantable quality. The implied warranty of fitness for a particular purpose is limited to the extent the products are used for the purpose or uses described on the product's label or in any written instructions or materials distributed to the buyer by Alken-Murray and is hereby disclaimed should buyer use the products in a manner inconsistent with this uses or purposes described therein. In no event shall Alken-Murray be liable for any consequential, exemplary, or incidental damages incurred by buyer even if it has been advised of the possibility of such damages.



**E-mail: [chemical@alken-murray.com](mailto:chemical@alken-murray.com)**

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