



CIMAREX ENERGY COMPANY  
600 N. Marienfeld Street  
Suite 600  
Midland, TX 79701

Christine Alderman  
ESH Supervisor – Permian

Ms. Olivia Yu  
NMOCD District 1

Re: Red Hills Unit 3  
1RP4857

Ms. Yu

On October 29, 2017 an illegal dumping of fluid was discovered off the northwest side of this location. It flowed approximately 350 ft downslope, then turned southwest a further 120 ft into a wet weather creek identified on a USGS topographic map. The fluid was not from a Cimarex facility, and the party who released it is not able to be identified.

The area impacted is extremely rocky and was not able to be accessed by hydro-vac or backhoe. Cimarex has investigated remediation activities and proposes the following:

- Apply a diluted surfactant to the spill area (initial preparation for special chemical additives)
- Apply SoilWash (Integro Solutions LLC) which will clean and break down the hydrocarbons, as well as BioLift (Integro Solutions LLC) which will add nutrients and promote microbial growth. Both products will be applied per manufactures specifications.

I have attached the safety data sheets and information for both the Integro products. Cimarex is prepared to begin this process upon conformation from your office.

Please contact me if you have any questions.

Respectfully,

A handwritten signature in cursive script that reads "Christine Alderman". The signature is written in dark ink and is positioned above the printed name.

Christine Alderman



**INTEGRO**  
**SOLUTIONS**

**BioLift**

Integro Solutions, LLC  
Integro@IntegroSolutionsLLC.com ✉  
512-638-3140 ☎

## Description

BioLift is a concentrated nutrient package designed to promote and accelerate reproduction and growth of hydrocarbon degrading microbes. Use of BioLift accelerates the bioremediation process by either native or supplemented microbes. It can be used as a stand-alone product or in conjunction with other Integro products to create a complete bioremediation package.

## Typical Performance

- Concentrated biostimulation nutrient package
- Decreases the time required for a hydrocarbon remediation
- Works with either augmented or native soil microbes
- Recommended for use in conjunction with other Integro bioremediation amendments or as a stand-alone product

## Applications

- Specifically formulated for biostimulation of hydrocarbon degrading microbes in soil
- Can be used to stimulate bioremediation of a wide variety of hydrocarbons
- Can be used as a stand-alone product or as part of a larger bioremediation program

**Safety:** Always refer to the Safety Data Sheet for detailed information on shipping, handling, storage, and use.

**Important:** The information provided herein is believed to be accurate and reliable, but is presented without guarantee. Further, nothing contained herein shall be taken as an inducement to violate any patent rights.

## **Packaging, Handling & Storage**

- Packaging: 55 gal drums or 5 gal pails. Prices vary upon packaging type.
- Non-Toxic and Biodegradable.

## Physical Properties

Type:	Biostimulation Amendment
Appearance:	Light Yellow Liquid
Odor:	Mild
Specific Gravity:	1.25-1.27
pH:	6.0-8.0
See Also SDS	

**FIELD TESTED FLUID TECHNOLOGY**



# Safety Data Sheet

Issue Date: 05-Dec-2017

Revision Date: 05-Dec-2017

Version 1

## 1. IDENTIFICATION

### Product Identifier

Product Name BioLift

### Other means of identification

SDS # INT-005

### Recommended use of the chemical and restrictions on use

Recommended Use Nutrient package for soil microbes to encourage biodegradation.

### Details of the supplier of the safety data sheet

#### Supplier Address

Integro Solutions, LLC  
1329 Talley Loop  
Buda, TX 78610  
integro@integrosolutionsllc.com

### Emergency Telephone Number

Company Phone Number 512-638-3140  
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** According to product specification

**Physical state** Liquid

**Odor** According to product specification

### Classification

Serious eye damage/eye irritation

Category 2

### Signal Word

Warning

### Hazard statements

Causes serious eye irritation



### Precautionary Statements - Prevention

Wear eye/face protection  
Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**

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

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	Weight-%
Ammonium Nitrate	6484-52-2	10-30
Proprietary soil surfactant 1	Proprietary	1-5
Proprietary soil surfactant 2	Proprietary	<1
Non-Hazardous Ingredients	Mixture	50-70

\*\*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****First Aid Measures**

<b>General Advice</b>	Provide this SDS to medical personnel for treatment.
<b>Eye Contact</b>	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.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes.
<b>Inhalation</b>	Remove to fresh air.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water.

**Most important symptoms and effects**

<b>Symptoms</b>	Causes serious eye irritation. May be harmful if swallowed.
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**Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically.
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**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

Not determined.

**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**

<b>Personal Precautions</b>	Use personal protective equipment as required.
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**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. Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection.

**Conditions for safe storage, including any incompatibilities**

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

**Incompatible Materials** None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

**Appropriate engineering controls**

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

**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** 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**

<b>Physical state</b>	Liquid	<b>Odor</b>	According to product specification
<b>Appearance</b>	According to product specification	<b>Odor Threshold</b>	Not determined
<b>Color</b>	According to product specification		
<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>	
pH	Not determined		
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	Not determined		
Flash Point	Not determined		

Evaporation Rate	Not determined
Flammability (Solid, Gas)	Not determined
Flammability Limits in Air	
Upper Flammability Limits	Not determined
Lower Flammability Limit	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined
Relative Density	Not determined
Water Solubility	Not determined
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Auto-ignition 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

None known based on information supplied.

### Hazardous Decomposition Products

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

Eye Contact	Causes serious eye irritation.
Skin Contact	Avoid contact with skin.
Inhalation	Do not inhale.
Ingestion	Do not ingest.

### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Muriate of potash	= 2600 mg/kg ( Rat )	-	-
Urea 57-13-6	= 8471 mg/kg ( Rat )	-	-

Ammonium Nitrate 6484-52-2	= 2217 mg/kg ( Rat )	-	> 88.8 mg/L ( Rat ) 4 h
Ammonium Polyphosphate 68333-79-9	> 2000 mg/kg ( Rat )	-	-
Proprietary soil surfactant 1	= 4920 µL/kg ( Rat )	-	= 2 g/m <sup>3</sup> ( Rat ) 4 h

### Information on physical, chemical and toxicological effects

#### 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

Nitrate or nitrite ingested under conditions that result in endogenous nitrosation are considered IARC group 2A carcinogens.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ammonium Nitrate 6484-52-2		Group 2A		X

#### Legend

*IARC (International Agency for Research on Cancer)*

*Group 2A - Probably Carcinogenic to Humans*

*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 .

ATEmix (oral) 2,589.00 mg/kg

ATEmix (inhalation-dust/mist) 42.67 mg/L

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

### Component Information

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Muriate of potash	2500: 72 h Desmodesmus subspicatus mg/L EC50	750 - 1020: 96 h Pimephales promelas mg/L LC50 static 1060: 96 h Lepomis macrochirus mg/L LC50 static	825: 48 h Daphnia magna mg/L EC50 83: 48 h Daphnia magna mg/L EC50 Static
Urea 57-13-6		16200 - 18300: 96 h Poecilia reticulata mg/L LC50	3910: 48 h Daphnia magna mg/L EC50 Static 10000: 24 h Daphnia magna Straus mg/L EC50
Ammonium Nitrate 6484-52-2		65 - 85: 48 h Cyprinus carpio mg/L LC50 semi-static	
Ammonium Polyphosphate 68333-79-9		685 - 1066: 96 h Oncorhynchus mykiss mg/L LC50 static 123: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 389 - 654: 96 h Pimephales promelas mg/L LC50 static 500: 96 h Brachydanio rerio mg/L LC50 static	

### Persistence/Degradability

Not determined.

### Bioaccumulation

Not determined.

**Mobility**

Chemical Name	Partition Coefficient
Urea 57-13-6	-1.59
Ammonium Nitrate 6484-52-2	-3.1

**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
Ammonium Nitrate 6484-52-2	Ignitable Reactive

**14. TRANSPORT INFORMATION****Note**

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

**DOT**

Not regulated

**IATA**

Not regulated

**IMDG**

Not regulated

**15. REGULATORY INFORMATION****International Inventories**

Chemical Name	TSCA	DSL/NDSL	EINECS/E LINC	ENCS	IECSC	KECL	PICCS	AICS
Muriate of potash	X	X	X	Present	X	Present	X	X
Urea	X	X	X	Present	X	Present	X	X
Ammonium Nitrate	X	X	X	Present	X	Present	X	X
Ammonium Polyphosphate	X	X	X	Present	X	Present	X	X
Proprietary soil surfactant 1	X	X		Present	X	Present	X	X
Proprietary soil surfactant 2	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/ELINC - 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

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Ammonium Nitrate - 6484-52-2	6484-52-2	10-30	1.0

### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

## US State Regulations

### California Proposition 65

This product does not contain any Proposition 65 chemicals.

## U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ammonium Nitrate 6484-52-2	X	X	X

## 16. OTHER INFORMATION

### NFPA

#### Health Hazards

Not determined

#### Flammability

Not determined

#### Instability

Not determined

#### Special Hazards

Not determined

### HMIS

#### Health Hazards

Not determined

#### Flammability

Not determined

#### Physical hazards

Not determined

#### Personal Protection

Not determined

Issue Date:

05-Dec-2017

Revision Date:

05-Dec-2017

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**



**INTEGRO**  
**SOLUTIONS**

**SoilWash**

Integro Solutions, LLC  
Integro@IntegroSolutionsLLC.com ✉  
512-638-3140 ☎

## **Description**

SoilWash is a concentrated aqueous bio-solvent for cleaning and breaking down hydrocarbons in the soil and on other surfaces. SoilWash can be used in a comprehensive hydrocarbon treatment system or as a stand-alone product. It is used to remove hydrocarbons adhering to surfaces such as tanks, concrete or soil particles and to help solubilize, break down and increase availability to microbes.

## **Physical Properties**

Type:	Hydrocarbon Cleaner
Appearance:	Light Yellow Liquid
Odor:	Mild
Specific Gravity:	1.05-1.07
pH:	9.0-10.0
See Also SDS	

## **Typical Performance**

- Environmentally friendly cleaner for use on hydrocarbons
- Increases solubility and breaks down hydrocarbons
- Removes hydrocarbons adhering to tanks, concrete, soil particles or other surfaces
- Increases the bioavailability of hydrocarbons thereby increasing the rate of bioremediation
- Recommended for use in conjunction with other bioremediation amendments or as a stand-alone product

## **Applications**

- Specifically formulated for use as a hydrocarbon release agent in soils
- Can be used as a rig wash or to remove hydrocarbon stains from other surfaces
- Can be used as a stand-alone product or as part of a larger bioremediation program

**Safety:** Always refer to the Safety Data Sheet for detailed information on shipping, handling, storage, and use.

**Important:** The information provided herein is believed to be accurate and reliable, but is presented without guarantee. Further, nothing contained herein shall be taken as an inducement to violate any patent rights.

## **Packaging, Handling & Storage**

- Packaging: 55 gal drums or 5 gal pails. Prices vary upon packaging type.
- Non-Toxic and Biodegradable.

**FIELD TESTED FLUID TECHNOLOGY**

Issue Date: 02-Dec-2016

Revision Date: 26-Jun-2017

Version 2

## 1. IDENTIFICATION

**Product Identifier****Product Name** SoilWash**Other means of identification**

None

**Recommended use of the chemical and restrictions on use****Recommended Use** Cleaning and degreasing soil and equipment**Details of the supplier of the safety data sheet****Supplier Address**Integro Solutions, LLC  
1329 Talley Loop  
Buda, TX 78610**Emergency Telephone Number****Company Contact****Emergency Telephone (24 hr)**512-638-3140 - integro@integrosolutionsllc.com  
INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Clear, Green**Physical State** Liquid**Odor** Mild**Classification**

The classification and labeling information in this Safety Data Sheet should be viewed as provisional, as the product's ingredients and percentages are kept as a trade secret. This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

**Hazard Symbol**

None

**Signal Word**

None

**Precautionary Statement****Prevention**  
**Response**  
**Storage**  
**Disposal**Observe good industrial hygiene practices.  
Wash hands after handling.  
Store away from incompatible materials.  
Disposal of waste and residues in accordance with local authority requirements**Hazard(s) not otherwise classified** May cause slight eye irritation.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No	Weight-%
Surfactant Blend	Proprietary	1-5
Tetrapotassium pyrophosphate	7320-34-5	1-10
Tetrasodium EDTA	64-02-8	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****First Aid Measures**

<b>General Advice</b>	Provide this SDS to medical personnel for treatment.
<b>Eye Contact</b>	Flush immediately with water for 15 minutes. If irritation persists, see physician.
<b>Skin Contact</b>	Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If skin irritation persists, call a physician.
<b>Inhalation</b>	Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Seek immediate medical attention/advice.

**Most important symptoms and effects**

<b>Symptoms</b>	May cause skin and eye irritation.
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**Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically.
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**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Unsuitable Extinguishing Media** Do not use straight streams.

**Specific Hazards Arising from the Chemical:** Not determined.

**Hazardous Combustion Products** Oxides of carbon and nitrogen compounds.

**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**

<b>Personal Precautions</b>	See Section 8 for Personal Protective Equipment.
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**Environmental Precautions** See Section 12 for additional Ecological Information. .

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent entry into waterways, rivers, lakes, sewers, basements or confined areas. Prevent further leakage or spillage if safe to do so. Absorb or cover with dry earth, sand or other non-combustible material.

**Methods for Clean-Up** Sweep up absorbed material and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations. See section 13 for waste disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid breathing fumes, vapors, mists, spray. Wash face, hands, and any exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed and store in a cool, dry and well-ventilated place. Do not store in open or unlabeled containers. Store away from heat and open flame. Storage temperature > 40 °F.

**Incompatible Materials** Strong acids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines** No exposure limits noted for ingredient(s) The following information is given as general guidance

**Appropriate engineering controls**

**Engineering Controls** Maintain eye wash fountain and quick-drench facilities in work area.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** If contact is likely, safety glasses with side shields are recommended.

**Skin and Body Protection** If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

**Respiratory Protection** Ensure adequate ventilation, especially in confined areas.

**General Hygiene Considerations** Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical State</b>	Liquid	<b>Odor</b>	Mild
<b>Appearance</b>	Clear	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Green		

<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>
pH	11.5	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	100 °C / 212 °F	
Flash Point	Not flammable	
Evaporation Rate	< 1.0	(butyl acetate = 1)
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	> 1.0	@ 68°F (20 ° C)
Vapor Density	> 1.0	(Air=1)
Specific Gravity	1.04	(1=Water)
Water Solubility	Completely soluble	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
VOC Content (%)	Not determined	

**10. STABILITY AND REACTIVITY**

<b>Reactivity</b>	Not reactive under normal conditions
<b>Chemical Stability</b>	Stable under recommended storage conditions
<b>Possibility of Hazardous Reactions</b>	None under normal processing.
<b>Conditions to Avoid</b>	Incompatible Materials.
<b>Incompatible Materials</b>	Strong acids.
<b>Hazardous Decomposition Products</b>	Thermal decomposition and combustion are not expected to occur except under extreme conditions.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

<b>Eye Contact</b>	Irritating to eyes.
<b>Skin Contact</b>	Prolonged contact may cause redness and irritation.
<b>Inhalation</b>	Inhalation of mists may be irritating to the respiratory system.
<b>Ingestion</b>	May cause gastrointestinal irritation or diarrhea.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Tetrapotassium pyrophosphate 7320-34-5	-	> 4640 mg/kg ( Rabbit )	-
Tetrasodium EDTA 64-02-8	= 10 g/kg ( Rat )	-	-

**Information on physical, chemical and toxicological effects****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**

Carcinogenic potential is unknown.

**Numerical measures of toxicity**

Not determined

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Harmful to aquatic life with long lasting effects

**Component Information**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Tetrapotassium pyrophosphate 7320-34-5		100: 96 h Oncorhynchus mykiss mg/L LC50		100: 48 h water flea mg/L EC50
Tetrasodium EDTA 64-02-8	1.01: 72 h Desmodesmus subspicatus mg/L EC50	41: 96 h Lepomis macrochirus mg/L LC50 static 59.8: 96 h Pimephales promelas mg/L LC50 static		610: 24 h Daphnia magna mg/L EC50

**Persistence/Degradability**

Biodegradation: Expected to be slowly biodegradable. Natural carbon dioxide will slowly neutralize this material.

**Bioaccumulation**

Not determined

**Mobility**

Not determined

**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.

**14. TRANSPORT INFORMATION****Note**

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

**DOT**

Not regulated

**IATA** Not regulated

**IMDG** Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Tetrapotassium pyrophosphate	Present	X		Present		Present	X	Present	X	X
Tetrasodium EDTA	Present	X		Present		Present	X	Present	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**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

#### **SARA 311/312 Hazard Categories**

This material, as supplied, does not contain any substances subject to the requirements of SARA Sections 311/312 (40 CFR 370)

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains no chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

### US State Regulations

**California Proposition 65 :** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations:** Not determined.



**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	1	0	0	Not determined
<b><u>HMIS</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical Hazards</b>	<b>Personal Protection</b>
	1	0	0	Not determined

**Issue Date:** 02-Dec-2016  
**Revision Date:** 26-Jun-2017  
**Revision Note:** Revised SECTION 2

**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**