

# SAFETY DATA SHEET

LINKAGE

SDS DATE: 12/5/2016

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** LINKAGE

**DISTRIBUTOR:** CHS Inc.  
**ADDRESS:** 5500 Cenex Drive • Inver Grove Heights, MN 55077  
**PHONE:** 651-355-6000

**EMERGENCY CHEMTREC PHONE:** US: 1-800-424-9300

**CHEMICAL NAME:** Proprietary mixture  
**CHEMICAL FAMILY:** Surfactant/ Basic blend  
**CHEMICAL FORMULA:** Mixture

**PRODUCT USE:** Adjuvant

**SECTION 1 NOTES:** None

## SECTION 2: HAZARDS IDENTIFIED

### GHS Ratings:

**Toxicity Categories**  
Skin corrosion/ irritation Category 2  
Eye damage/ irritation Category 2A



**Signal Word: WARNING**

### GHS HAZARDS

H315 Causes skin irritation.  
H319 Causes serious eye irritation.

### GHS PRECAUTIONS

P102 Keep out of reach of children.  
P103 Read label before use.  
P233 Keep container tightly closed.  
P234 Keep only in original container.  
P261 Avoid breathing dust, fume, gas, mist, vapors or spray.  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves, protective clothing, eye protection and face protection.  
P301+312 IF SWALLOWED: Call a POISON CENTER, doctor or physician if you feel unwell.  
P302+352 IF ON SKIN: Wash with plenty of soap and water.  
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do then continue rinsing cautiously.  
P337+313 If eye irritation persists: Get medical advice or attention.  
P332+313 If skin irritation occurs: Get medical advice or attention.  
P362 Take off contaminated clothing and wash it before reuse.

## SECTION 3: INFORMATION ON COMPOSITION

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>% WT</u>
Proprietary	Proprietary	5 – 10%
Trade secret	Trade secret	20 – 30%
Propionic Acid	79-09-4	5 – 10%
Ammonium hydroxide	1336-21-6	1 – 5%

**NOTE:** Product does NOT contain any pesticides or pest control agents.

**SECTION 3 NOTES:** These specific chemical identities and or exact percentage (concentration) of composition have been withheld as a trade secret.

### CARCINOGENICITY

**OSHA:** No      **ACGIH:** No      **NTP:** No      **IARC:** No      **OTHER:** No

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## SECTION 4: FIRST AID MEASURES

*Have the product container with you when calling a poison control center or doctor, or going for treatment.*

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do then continue rinsing. If eye irritation persists: Get medical advice or attention.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing and wash it before reuse. Wash with plenty of soap and water for several minutes. Call a poison center or physician to specify the appropriate source of emergency medical advice. If skin irritation occurs: Get medical advice or attention.

**IF SWALLOWED:** Unless advised otherwise by a poison control center or doctor, have person rinse mouth with water, if able. Do not give anything by mouth to an unconscious person.

**IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth to mouth if possible.

### NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 4 NOTES: None

## SECTION 5: FIRE FIGHTING MEASURES

### NFPA HAZARD CLASSIFICATION

HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 0 OTHER: -

**IN CASE OF FIRE:** Use water spray, dry chemical, or Carbon dioxide.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-container breathing apparatus and avoid breathing fumes or dust.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** None known

**HAZARDOUS DECOMPOSITION PRODUCTS:** Under fire conditions will form oxides of carbon.

SECTION 5 NOTES: None

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**ACCIDENTAL RELEASE MEASURES:** Surround and absorb all spills. Material should be collected and disposed in proper manner. Dike the area to prevent spill from spreading. Soak up spill with a suitable absorbent such as clay, sawdust or kitty litter. Sweep up absorbed material and place in a chemical waste container for disposal. Wear suitable protective equipment.

SECTION 6 NOTES: None

## SECTION 7: HANDLING AND STORAGE

**HANDLING** Keep out of reach of children. Read label before use. Do not eat, drink or smoke when using this product. Avoid breathing vapors or spray. Wash hands thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection.

**STORAGE:** Store in a cool well-ventilated place. Keep in original container tightly closed. Do not reuse empty container. Do not store with food, feed, or other material to be used or consumed by humans or animals. Do not contaminate water supplies. For optimal storage, store between 40° and 90° F.

SECTION 7 NOTES: None



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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

	OSHA		ACGIH		NIOSH	
	PEL	STEL	PEL	STEL	PEL	STEL
Propionic Acid 79-09-4			10 ppm TWA		10 ppm TWA; 30 mg/m <sup>3</sup> TWA 15 ppm STEL; 45 mg/m <sup>3</sup> STEL	

- VENTILATION:** Normal room ventilation (mechanical) or outdoor use should be satisfactory.
- RESPIRATORY PROTECTION:** Not necessary unless ventilation is inadequate. Then use OSHA or NIOSH approved respirator, as appropriate.
- EYE PROTECTION:** Chemical goggles. 
- SKIN PROTECTION:** Chemical gloves, long-sleeved shirts and pants. 
- OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Eye wash and safety shower should be easily accessible.
- WORK HYGIENIC PRACTICES:** Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse.
- EXPOSURE GUIDELINES:** If exposed, see section 4 for acute exposure first aid.
- SECTION 8 NOTES:** None

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE:** Clear, light blue
- ODOR:** Slight ammonia
- ORDER THRESHOLD:** Not known
- PHYSICAL STATE:** Liquid
- pH AS SUPPLIED:** Not applicable
- pH (Other):**
- INITIAL BOILING POINT:** F: Unknown  
C: Unknown
- BOILING POINT RANGE:** F: Unknown  
C: Unknown
- MELTING POINT:** F: Unknown  
C: Unknown
- FREEZING POINT:** F: Unknown  
C: Unknown
- FLASH POINT:** F: >200  
C: >93
- METHOD USED:** PMCC
- FLAMMABILITY (solid, gas):** Can burn
- FLAMMABLE LIMITS IN AIR, UPPER (% BY VOLUME):** Unknown
- LOWER:** Unknown
- VAPOR PRESSURE (mmHg):** @  
F: Unknown  
C: Unknown
- VAPOR DENSITY (AIR = 1):** @  
F: Unknown  
C: Unknown
- RELATIVE DENSITY:** 1.131 to 1.158
- EVAPORATION RATE: BASIS (butyl acetate=1):** Unknown
- SOLUBILITY IN WATER:** Soluble
- PARTITION COEFFICIENT: (n-octanol/water):** Unknown
- AUTO-IGNITION TEMPERATURE:** Unknown
- DECOMPOSITION TEMPERATURE:** Unknown
- VISCOSITY:** @ Not determined  
F: Unknown  
C: Unknown

**SECTION 9 NOTES: Values are not product specifications.**

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

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## SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable  Unstable

CONDITIONS TO AVOID (STABILITY): None known.

INCOMPATIBILITY (MATERIAL TO AVOID): None known.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Stable except when exposed to the above materials or fire conditions.

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID (POLYMERIZATION): None known

SECTION 10 NOTES: None

## SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: None

MIXTURE TOXICITY Not available

COMPONENT TOXICITY Not available

SECTION 11 NOTES: None

## SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: None

ECOTOXICITY: Not available

BIOACCUMULATIVE POTENTIAL: Not available

MOBILITY IN SOIL: Not available

OTHER ADVERSE EFFECTS: Not available

SECTION 12 NOTES: None

## SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Do not contaminate water, food or feed by storage or disposal. Dispose of contents in container to an approved waste disposal facility in accordance with all local, regional, national and international regulations.

CONTAINER DISPOSAL: Triple rinse (or equivalent) adding rinse water to application tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by local regulations.

RCRA HAZARD CLASS: None

SECTION 13 NOTES: None

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## SECTION 14: TRANSPORT INFORMATION

### U.S. DEPARTMENT OF TRANSPORTATION

#### DOT Shipping Description:

**NOT REGULATED AS CORROSIVE** WHEN TRANSPORTED BY MOTOR VEHICLE OR RAILCAR IN PACKAGING THAT WILL NOT REACT WITH OR BE DEGRADED BY THIS MATERIAL SUCH AS HDPE OR STAINLESS STEEL - 49 CFR 173.154 (d).

Average rate of corrosion for STEEL Coupon test 0.4316 mm/yr

Average rate of corrosion for ALUMINUM ALLOY Coupon test .0231 mm/yr

**U.S. Surface Freight Classification:** ADHESIVES, ADJUVANTS, SPREADERS OR STICKERS (NMFC 4610; CLASS: 60) Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

**OTHER AGENCIES:** None

**SECTION 14 NOTES:** None

## SECTION 15: REGULATORY INFORMATION

### U.S. FEDERAL REGULATIONS

**TSCA (TOXIC SUBSTANCE CONTROL ACT):** Mixture not listed or excluded from listing.

**CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):** Not Regulated

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):** Not Regulated

**311/312 HAZARD CATEGORIES:** None

**313 REPORTABLE INGREDIENTS:** None

**INTERNATIONAL REGULATIONS:** None

**SECTION 15 NOTES:** None

## SECTION 16: OTHER INFORMATION

**OTHER INFORMATION:** None

#### DISCLAIMER:

The recommendation for safe handling and protection procedures is believed to be generally suitable for the standard uses of this compound. However, each user should identify his intended uses of this material and determine whether they are appropriate. All data included in this document is released as typical values and should not be utilized to determine the suitability of this material for a particular use or purpose. No warranty, either expressed or implied, is hereby made, nor do we give permission, inducement, or recommendations to practice any patented invention without a license. All data is offered for consideration, investigation and verification purposes only.