

**SECTION 1 - PRODUCT IDENTIFICATION**

PRODUCT NAME:	FORMULA 2923-L
PRODUCT USE:	COOLING WATER TREATMENT
RESTRICTIONS ON USE:	Refer to label, available technical information, and other appropriate sections of this SDS.
UN NUMBER:	NOT REGULATED
PROPER SHIPPING NAME:	NOT REGULATED
MANUFACTURER'S NAME:	Garratt-Callahan Company
ADDRESS:	50 Ingold Road, Burlingame, CA 94010-2206
EMERGENCY PHONE:	<b>North America: CHEMTREC: 1-800-424-9300</b> <b>Outside North America: +1-703-527-3887</b>
BUSINESS PHONE:	Product Information: 650-697-5811
SDS NUMBER:	SD2923
DATE OF REVISION:	9/28/2015

**SECTION 2 - HAZARDS IDENTIFICATION**
**SIGNAL WORD:** WARNING

**HAZARD STATEMENT:**

H315: Causes skin irritation. 2  
 H320: Causes eye irritation. 2B

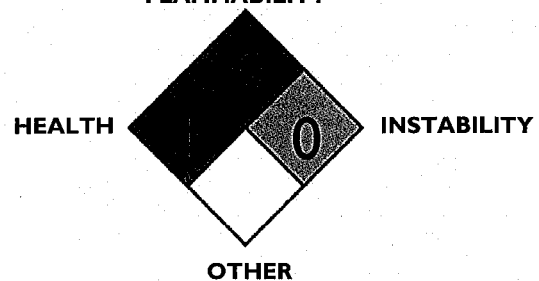

**PRECAUTIONARY STATEMENTS: (PREVENTION)**

P101: If medical advice is needed, have product container or label at hand.  
 P102: Keep out of reach of children.  
 P103: Read label before use.  
 P264: Wash all exposed skin/hair thoroughly after handling.  
 P280: Wear protective gloves/protective clothing/eye protection/face protection.

**HAZARDOUS MATERIAL IDENTIFICATION SYSTEM**

HEALTH HAZARD (BLUE)	
REACTIVITY HAZARD (YELLOW)	0

Hazard Scale  
 0=Minimal  
 1=Slight  
 2=Moderate  
 3=Serious  
 4=Severe  
 \*=Chronic hazard

**NFPA RATING  
 FLAMMABILITY**


### SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Ingredients</u>	<u>CAS#</u>	<u>EC#</u>	<u>ICSC#</u>	<u>WT %</u>
HEDP	2809-21-4	220-552-8	NE	3-6
SODIUM POLYACRYLATE	CONFIDENTIAL	NE	NE	2-5
PHOSPHONOBUTANE TRICARBOXYLIC ACID	37971-36-1	213-733-5	NE	2-5
BENZOTRIAZOLE	95-14-7	202-354-1	1091	2-3
SODIUM MOLYBDATE	7631-95-0	231-551-7	NE	1-3
SODIUM HYDROXIDE	1310-73-2	212-185-5	0360	<1

### SECTION 4 - FIRST AID MEASURES

Exposed individuals must be taken for medical attention if any adverse effect occurs. Take a copy of this SDS to the health professional with the individual.

**WARNING:** Causes skin irritation. Causes eye irritation. Also refer to Section 11 for symptoms, effects, and likely routes of exposure for this product.

#### **TARGET ORGANS:**

ACUTE irritation of skin, eyes, respiratory and gastrointestinal systems.  
CHRONIC irritation of skin, eyes, respiratory and gastrointestinal systems.

**SKIN EXPOSURE:** P302+P352: IF ON SKIN: Wash with soap and water. If this product contaminates the skin, begin decontamination with running water and soap. Minimum flushing time is for 15 minutes. P362: Take off contaminated clothing and wash before reuse. P332+P313: If skin irritation occurs: Get medical advice/attention.

**EYE EXPOSURE:** P305+P351+P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If vapors, mists, or sprays are generated by this product and enter the eyes, open the exposed individual's eyes while under gently running water. Use sufficient force to open the eyelids. Have the exposed individual "roll" their eyes. Minimum flushing time is for 15 minutes. P337+313: Get medical advice/attention. The exposed individual must seek immediate medical attention.

**INHALATION:** P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If vapors, mists, or sprays generated by this product are inhaled, remove exposed individual to fresh air. Remove or cover gross contamination to avoid exposure to rescuers.

**INGESTION:** P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Routine use of this product is not expected to cause any situation which could lead to ingestion. If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT ASSISTANCE INFORMATION. Exposed individual must seek immediate medical attention. Never induce vomiting or give diluents (milk or water) by mouth to someone who is unconscious, having convulsions, or unable to swallow.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Skin and respiratory disorders, as well as conditions involving the "Target Organs" which may be aggravated by prolonged exposures to this product. Exposed individual must seek immediate medical attention if any adverse effect occurs.

**NOTES TO PHYSICIAN:** Treat symptoms as demonstrated by signs and distress in the patient.

### SECTION 5 - FIRE FIGHTING MEASURES

#### **SUITABLE (AND UNSUITABLE) EXTINGUISHING MATERIALS:**

Not expected to burn. Use media appropriate for the surrounding fire.

#### **SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:**

No special hazards.

#### **SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS:**

Firefighters should wear fully protective clothing (chemical impermeable, fully encapsulated suit) and positive pressure self-contained breathing apparatus. Do not release run off from fire control methods to sewer or waterways.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, ENVIRONMENTAL PRECAUTIONS AND EMERGENCY PROCEDURES.

**WARNING:** Any container expansion or rounding indicates pressure build-up. Use extreme caution. When opening, release pressure slowly through opening.

**SPILL AND LEAK RESPONSE:** Uncontrolled releases should be responded to by appropriately trained personnel using pre-planned procedures. Proper protective equipment should be used, refer to Section 8 - exposure controls.

**Small Spill:** Mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. P391: Collect spillage.

**Large Spill:** Restrict access to the area. Provide adequate protective equipment and ventilation. Stop leak if without risk. Remove chemicals which can react with the spilled material. Add dry inert material to contain and absorb spilled material. Prevent entry into surface waters, sewers, basements or confined areas, dike if needed. Ensure that exposure to product is not at a concentration exceeding regulatory limits. Decontaminate the area thoroughly. Decontaminate all response equipment with soapy water before returning to service. Place all spill residue in a suitable container and seal. P391: Collect spillage.

## SECTION 7 - HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Keep out of reach of children. All employees who handle this material should be trained to handle it safely. Open containers slowly on a stable surface. As with all chemicals, avoid getting this product ON YOU or IN YOU. Avoid direct or prolonged contact with skin or eyes. Do not ingest. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors, dusts or mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately. Use only as directed. Refer to Section 8 for exposure controls.

**CONDITIONS FOR SAFE STORAGE:** Containers of this product must be properly labeled. Storage areas of this product should be clearly identified, well-illuminated, clear of obstruction and accessible only to trained and authorized personnel. Store containers in a clean, cool, well ventilated, dry location, away from direct sunlight, away from incompatible materials at temperatures between 50°F (10°C) - 100°F (37°C). Keep container tightly closed when not in use. P405: Store locked up. Do not ingest. Do not breathe vapor mist. Wash hands after handling. Refer to Section 10 for incompatibilities.

## SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

**VENTILATION AND ENGINEERING CONTROLS:** Use with adequate ventilation. Eyewash/safety shower station is recommended to be available near where this product is used/stored.

### EXPOSURE LIMITS/GUIDELINES:

### EXPOSURE LIMITS IN AIR

CHEMICAL NAME	CAS#	ACGIH TLV		OSHA PEL	OTHER
		TWA	STEL	TWA	
HEDP	2809-21-4	NE	NE	NE	NONE
SODIUM POLYACRYLATE	CONFIDENTIAL	NE	NE	NE	NONE
PHOSPHONOBUTANE TRICARBOXYLIC ACID	37971-36-1	NE	NE	NE	NONE
BENZOTRIAZOLE	95-14-7	NE	NE	NE	NONE
SODIUM MOLYBDATE	7631-95-0	NE	NE	NE	NONE
SODIUM HYDROXIDE	1310-73-2	NE	C 2 mg/m <sup>3</sup>	NE	NIOSH REL 2mg/m <sup>3</sup>

NE = Not Established

**INGESTION:** Do not eat, drink, smoke, or apply cosmetics when handling this product. Wash all exposed skin/hair thoroughly after handling.

**RESPIRATORY PROTECTION:** P260: Do not breathe dust/fume/gas/mist/vapours/spray. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. Air-purifying respirators with dust/mist/fume filters are recommended if operations may produce mists or sprays from this product.

**EYE PROTECTION:** Wear chemical safety goggles or safety glasses with side shields. A face shield may also be necessary for splash protection.

**SKIN PROTECTION:** P280: Wear protective gloves/protective clothing/eye protection/face protection. Use chemically-resistant gloves when handling this product. Use body protection appropriate for task (e.g. lab coat, overalls). P264: Wash all exposed skin/hair thoroughly after handling.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE and COLOR:	Clear light yellow liquid	VAPOR PRESSURE, mm Hg @ 20°C :	Not established
ODOR :	Sweet organic	VAPOR DENSITY (Air=1):	Not established
ODOR THRESHOLD:	Not established	RELATIVE DENSITY@20°C (water=1):	1.06 - 1.08
pH:	3.0 - 4.5	SOLUBILITY IN WATER:	Complete
MELTING/FREEZING POINT:	NA	PARTITION COEFFICIENT(n-octanol/water):	Not established
BOILING POINT:	> 212°F (100°C)	AUTOIGNITION TEMPERATURE:	Not established
FLASHPOINT:	Non-flammable	DECOMPOSITION TEMPERATURE:	Not established
EVAPORATION RATE (n-BuAc=1):	Not established	VISCOSITY:	Not established
FLAMMABILITY (SOLID/GAS):	Not established	VOLATILE ORGANIC COMPOUNDS (%):	Not established
FLAMMABLE LIMITS (in air by volume, %):	Not established		

## SECTION 10 - STABILITY AND REACTIVITY

**REACTIVITY:** Product is not reactive under standard ambient temperature and pressure.

**STABILITY:** Stable under normal condition of use and storage.

### POSSIBILITY OF

**HAZARDOUS REACTIONS:** Will not occur.

**CONDITIONS TO AVOID:** Not established.

**INCOMPATIBLE MATERIALS:** Reactive metals.

### HAZARDOUS

**DECOMPOSITION PRODUCTS:** When heated to decomposition, product may emit toxic fumes of oxides of carbon, nitrogen and phosphorous.

## SECTION 11 - TOXICOLOGICAL INFORMATION

**TOXICOLOGICAL EFFECTS:** No data available for this product.

**LIKELY ROUTES OF EXPOSURE:** Skin/eye contact and inhalation.

**RELATED SYMPTOMS:** Skin, eye, respiratory and gastrointestinal irritation. May be harmful if swallowed.

### DELAYED/IMMEDIATE/CHRONIC EFFECTS FROM SHORT AND

**LONG TERM EXPOSURES:** Skin, eye, respiratory and gastrointestinal irritation. May be harmful if swallowed.

### NUMERICAL MEASURES OF

**TOXICITY:** Fathead minnow: 48-hr LC50S: 3536 ppm; 96-hr LC50S: 3475 ppm.

Waterflea: 48-hr LC50S: 2386 ppm; 96-hr LC50S: 1708 ppm.

**CARCINOGENICITY:** None of the components of this product are listed by the NTP, IARC, or regulated by OSHA as carcinogens.

## SECTION 12 - ECOLOGICAL INFORMATION

**ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.**

**ECOTOXICITY:** Data not available for this product.

**PERSISTENCE AND DEGRADABILITY:** No data available for this product.

**BIOLOGICAL ACCUMULATION POTENTIAL:** No data available for this product.

**MOBILITY IN SOIL:** No data available for this product.

**OTHER ADVERSE EFFECTS (i.e., hazardous to the ozone layer):** No data available for this product.

**BIOLOGICAL EXPOSURE INDICES:** Currently, Biological Exposure Indices (BEIs) have not been determined for this product.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**DISPOSAL:** P501: Dispose of contents/container in accordance with local/regional/national/international regulations. Rinse empty containers with water and use the rinse water to prepare the working solution. Refer to section 8 for exposure controls - personal protection.

## SECTION 14 - TRANSPORTATION INFORMATION

### PROPER SHIPPING NAME

DOT: NOT REGULATED  
IMDG/IMO: NOT REGULATED  
IATA/ICAO: NOT REGULATED

### ENVIRONMENTAL HAZARDS

(i.e., MARINE POLLUTANT): None known.

TRANSPORT IN BULK (according to annex II marpol 73/78 and the IBC code): Not applicable.

SPECIAL PRECAUTIONS FOR USER: None known.

## SECTION 15 - REGULATORY INFORMATION

### United States and International Regulations

**United States Regulations: U.S. SARA REPORTING REQUIREMENTS:** The components of this product are subject to the reporting as listed below, requirements of Sections 302, 304, and 313 of Title of the Superfund Amendments and Reauthorization Act:

#### CHEMICAL NAME

HEDP	SARA 302 (40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - NO SARA 313 (40 CFR 372.65) - NO
SODIUM POLYACRYLATE	SARA 302 (40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - NO SARA 313 (40 CFR 372.65) - NO
PHOSPHONOBUTANE TRICARBOXYLIC ACID	SARA 302 (40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - NO SARA 313 (40 CFR 372.65) - NO
BENZOTRIAZOLE	SARA 302 (40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - NO SARA 313 (40 CFR 372.65) - NO
SODIUM MOLYBDATE	SARA 302 (40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - NO SARA 313 (40 CFR 372.65) - NO
SODIUM HYDROXIDE	SARA 302 (40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - YES SARA 313 (40 CFR 372.65) - NO

#### U.S. Regulations

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.U.S.

CERCLA REPORTABLE QUANTITY (RQ): SODIUM HYDROXIDE 1,000 LBS (454 kg)

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory.

SARA Title 311/312, Hazard Category: Acute Health: YES; Chronic: YES; Fire: NO; Reactive: NO; Sudden Release of Pressure: NO

**California Safe Drinking Water and Toxic Enforcement Act (proposition 65):** No component of this product is on the Proposition 65 list.

#### International Regulations

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are on the DSL or NDSL Inventories or are exempt from listing.

CANADIAN WHMIS CLASSIFICATION: CLASS E: Corrosive Material.

**SECTION 16 - OTHER INFORMATION**

**PREPARED BY:** GARRATT CALLAHAN

**DATE OF REVISION:** 9/28/2015      Supercedes: 9/17/2013

This product has been certified by the Orthodox Union as Kosher Pareve under the UK ID number of OUV3-9DE6633 when prepared in either the Addison, Illinois or Burlingame, California facilities.

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