



Galvanode® Humectant Solution

Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Vector Galvanode Humectant Solution
APPLICATION: Activator solution for metalized anodes
COMPANY: Vector Corrosion Technologies
474B Dovercourt Drive, Winnipeg, Manitoba, Canada, R3Y 1G4
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2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Clear, colorless, odorless solution
Severely irritating to the eyes and skin
Irritating to the mucous membranes

Comments: (See Section 11, Toxicological Information)



3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Wt. %
Lithium Bromide	7550-35-8	>50
Lithium Nitrate	7790-69-4	<1
Water	7732-18-5	>40
Surfactant	None	<1

4. FIRST AID MEASURES

EYES: Irrigate immediately with copious quantities of water for several minutes lifting upper and lower eyelids intermittently. Obtain immediate medical attention urgently.

SKIN: Wash immediately with copious quantities of water for several minutes. Remove contaminated clothing and/or shoes immediately. Obtain medical advice if skin disorders develop.

INHALATION: Remove from exposure, rest and keep warm and obtain medical attention urgently. If breathing discomfort occurs and persists, see a medical doctor.

INGESTION: Rinse out mouth with water. Dilute by giving 1 or 2 glasses of water. Do NOT induce vomiting. Obtain medical attention urgently.

NOTES to MEDICAL DOCTOR:

This product is practically non-toxic by ingestion, inhalation, or dermal exposure. It is severely irritating to the skin, and expected to be severely irritating to the eyes and mucous membranes. Dermal exposure may cause sensitization. Consideration should be given to gastric lavage, with endotracheal tube in place. Treatment is controlled removal of exposure with symptomatic and supportive care.





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5. FIRE FIGHTING MEASURES

FLAMMABLE LIMITS:	Upper- Not available	Lower-Not available
GENERAL HAZARD:	No known physical hazard, non-combustible	
EXTINGUISHING MEDIA:	Dry chemical, CO ₂ , water spray or regular foam	
HAZARDOUS COMBUSTION PRODUCTS:	None	
FIREFIGHTING PROCEDURES:	Wear full protective clothing and self-contained breathing apparatus (SCBA) approved for fire fighting. This is necessary to protect against the hazards of heat, products of combustion and oxygen deficiency. Do not breathe smoke, gases or vapors generated.	
AUTOIGNITION:	Not applicable	
TEMPERATURE PROPERTIES:	None	
CONTRIBUTING TO FLAMMABILITY:	Not applicable	
FLASHPOINT:	Not applicable	
Comments: (See Section 10, Stability and Reactivity)		

6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES: Contain spill with absorbent. Transfer or pump into a suitable container. Dispose of waste according to Local and Federal laws and regulations. Before cleanup measures begin, review the entire MSDS with particular attention to Section 3, Emergency Overview and Potential Health Effects; and Section 8, Recommended Personal Protective Equipment.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with eyes, skin or clothing. Avoid breathing mist. Use with adequate ventilation. Wear safety glasses or goggles and rubber gloves. Wash thoroughly after handling.

STORAGE: Keep away from strong acids. Keep container closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS:

Chemical Name	TWA (ACGIH)	STEL (ACGIH)	PEL (OSHA)	STEL/Ceiling (OSHA)
None				

ENGINEERING CONTROL MEASURES: Use local exhaust ventilation to keep airborne concentrations below exposure limits

PERSONAL PROTECTIVE EQUIPMENT:

EYES AND FACE: Safety glasses or goggles

RESPIRATORY: If product is misting or when engineering controls are not adequate, wear a NIOSH/MSHA respirator approved for inorganic dusts and mists.

PROTECTIVE CLOTHING: Rubber Gloves

WORK HYGIENIC PRACTICES: Quick-drench eyewash and safety shower





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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Liquid
COLOUR:	Clear, colorless
ODOUR:	Odourless
ODOUR THRESHOLD:	Not applicable
pH(working dilution):	7-9
BOILING POINT/RANGE (°C)	140°C (284°F)
MELTING POINT/RANGE (°C):	Not applicable
EVAPORATION RATE:	Not applicable
FLASH POINT (closed, (°C):	Not applicable
AUTO-IGNITION TEMP (°C):	Not applicable
IGNITION TEMP (°C):	Not applicable
OXIDIZING PROPERTIES:	Not an oxidizer
VAPOUR PRESSURE:	Not applicable
LOWER EXPLOSION LIMIT (Vol-%):	Not explosive
UPPER EXPLOSION LIMIT (Vol-%):	Not explosive
FLAMMABILITY (Solid/gas):	Not available
RELATIVE DENSITY (AT 20°C):	3.0
WATER SOLUBILITY:	Miscible in any proportion
VISCOSITY :	Not applicable
SPECIFIC GRAVITY:	1.6 g/cc at 25°C
MOLECULAR WEIGHT:	86.84

10. STABILITY AND REACTIVITY

REACTIVITY:	Reacts with acids.
CHEMICAL STABILITY:	The product is chemically stable.
POSSIBILITY OF HAZARDOUS REACTIONS:	Stable under recommended storage conditions.
CONDITIONS TO AVOID:	Contact with strong acids.
INCOMPATIBLE MATERIALS:	None
HAZARDOUS DECOMPOSITION PRODUCTS:	None

11. TOXICOLOGICAL INFORMATION

EYE CONTACT:	Severely irritating (rabbit) (52 - 54% LiBr aqueous solution)
SKIN CONTACT:	Severely irritating (rabbit) (52 - 54% LiBr aqueous solution)
SKIN ABSORPTION:	Dermal LD50: > 2000 mg/kg (rat) (52 - 54% LiBr aqueous solution)
INHALATION:	Inhalation LC50: > 15.57 mg/L/4 hr. (rat) (52 - 54% LiBr aqueous solution)
INGESTION:	Oral LD50: > 2000 MG/KG (RAT) (52 - 54% LiBr aqueous solution)





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ACCUTE EFFECTS FROM OVEREXPOSURE:

This product is practically non-toxic by ingestion, inhalation, or dermal exposure. It is severely irritating to the eyes and skin, and expected to be irritating to the mucous membranes. Causes skin sensitization in lab animals, and may produce similar effects in humans. Large doses of lithium bromide may cause central nervous system depression.

12. ECOLOGICAL INFORMATION

Lithium bromide

48 hr. EC50 = 364 mg/L (daphnia magna) [FMC 197-2170]

96 hr. LC50 > 976 mg/L (menidia beryllina) [FMC 197-2171]

96 hr. LC50 = 438 mg/L (rainbow trout) [FMC 197-2172]

96 hr. LC50 > 995 mg/L (mysid shrimp) [FMC 197-2173]

Chemical Fate Information: LiBr exists as the inorganic ions of lithium and bromide in aqueous solutions. LiBr is not biodegraded, bioaccumulated, or photodegraded.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of waste according to Local and Federal laws and regulations.

14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: None

CLASSIFICATION: None

LABELS: None

UN NUMBER: None

PACKING GROUP: None

CUSTOM TARIFF NO: 2827.59.000

MARINE POLLUTANT: No

15. REGULATORY INFORMATION

UNITED STATES: Immediate (Acute) Health Hazard

SECTION 311 HAZARD CATEGORY (40 CFR 370):

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):

This product does not contain a toxic chemical subject to the reporting requirements of Section 313 of Emergency Planning and Community Right-To-Know Act of 1986

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):

CERCLA HAZARDOUS SUBSTANCE (40 CFR 302.4):

Not listed

TSCA SEC 12B EXPORT NOTIFICATION: TSCA INVENTORY STATUS (40 CFR 710):

Not listed

This product is not subject to TSCA 12 (b) Export Notification Requirements
Listed

CANADA: Produce Identification No.: WHMIS:

None

Hazard Classification: Class D, Division 2B (Eye and skin irritant, skin sensitizer)

Ingredient Disclosure List: Not listed





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16. OTHER INFORMATION

May 1, 2020. All sections revised, new format.

This SDS has been prepared to meet U.S. Osha Hazard Communication Standard, 29 CFR 1910.1200 and Canada’s Workplace Hazardous Materials Information System (WHMIS) Requirements.

The data and advice given apply when the product is used for the stated application or applications. The product is not sold as suitable for any other application. Use of the product for applications other than as stated in this sheet may give rise to risks not mentioned in this sheet. The product should not be used other than for the stated application or applications without seeking advice from Vector Corrosion Technologies.

If this product has been purchased for supply to a third party for use at work, it is the purchaser’s duty to take all necessary steps to ensure any person handling or using the product is provided with the information in this sheet.

It is the responsibility and duty of the employer to inform employees and others who may be affected of any hazards described in this sheet and of any precautions which should be taken.

This sheet does not constitute or substitute for the users own assessment of workplace risk, as required by other health and safety legislation.

The information in the Safety Data Sheet was obtained from sources we believe are reliable. The information, however, is provided without any representation or warranty, expressed or implied regarding the accuracy or correctness.

The condition or methods of handling, storage, use and disposal of the product are beyond our control. We do not assume responsibility and expressly disclaim liability for loss, damage or exposure arising out of or in any way connected with the handling, storage, use or disposal of the product.

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