Barrier One, Inc.
SAFETY DATA SHEET

Product Name:
Barrier One MVRA
Moisture Vapor Reduction Admixture (water-based concrete admixture)

SECTION I

Product Description:
Moisture Vapor Reduction Admixture (water-based concrete admixture). A Nano Scale, Chemical Formation of Micro Calcium Silicate Hydrate Molecules that blocks Moisture Vapor Transmission through the Capillary System of Cementitious Structural Concrete.

MANUFACTURER

Barrier One, Inc., 576 S. Kissimmee Ave, Ocoee, Florida 34761
Technical Services: 877.224.5850

SUPPLIER
Barrier One, Inc., 576 S. Kissimmee Ave, Ocoee, Florida 34761
Technical Services: 877.224.5850

EMERGENCY TELEPHONE NUMBER: 800.222.1222 American Association of Poison Control Centers

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SECTION II – HAZARDOUS INGREDIENTS IDENTITY INFORMATION

WARNING

Hazard statement(s):
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.

Precautionary statement(s):
Avoid breathing mist/vapors.
Do not get in eyes, on skin or on clothing.
Wear protective gloves/protective clothing/
Eye protection/face protection.

IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing.

Hazardous Ingredients:	**OSHA PEL**	**ACGIH TLV**	**Other Limits**	**%**
Chemical Name: Inorganic, chemically reactive,	NONE	NONE	N/A	N/A

- Hydrous sodium silicate, proprietary formulation (CAS #1344-09-8)
- Calcium hydroxide (CAS #1305-62-0)

HAZARD: No evidence of health hazards exist. There are no ingredients present which, within the current knowledge of the manufacturer and in the concentration applicable, are classified as hazardous to health or the environment and are considered non-hazmat. Product contains no materials known to the state of California to cause cancer, birth defects, or other reproductive toxicity.

Hazard Rating Scale	Hazard Rating (NFPA 704 criteria)	HMIS Rating
0 = Minimal	Health: 1	Health: 2
1 = Slight		
2 = Moderate	Fire: 0	Fire: 0
3 = Serious		
4 = Severe	Reactivity: 0	Reactivity: 0
Special: None		

SECTION III –COMPOSITION

Chemical Name	CAS-No.	Weight %
Water	7732-18-5	> 60.0
Sodium Silicate	1344-09-8	39 – 42
Calcium Hydroxide	1305-62-0	0.6 – 8

SECTION IV – EMERGENCY FIRST AID PROCEDURES

Eyes: Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention.

Skin: Immediately flood the skin with large quantities of water. Remove contaminated clothing and shoes. Obtain medical attention.

Ingestion: If swallowed, obtain medical attention immediately. If victim is fully conscious, give a cupful of milk. If conscious, induce vomiting. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. If not breathing, trained medical personnel should initiate artificial respiration. Obtain medical attention.

SECTION V – FIRE AND EXPLOSION HAZARD DATA

Non-flammable, water based product. In store area use water, dry chemical, CO2 or foam. Is compatible with all extinguishing media.

Flash point Non-flammable Upper Flammable Limit (UFL): N/A Lower Flammable Limit (LFL): N/A

Explosion data – sensitivity to impact: N/A Explosion data – sensitivity to static discharge N/A

Auto-ignition Temp: N/A Special Firefighting procedures None

SECTION VI – Accidental Release

Spill procedures: Small spills – neutralize liquid with large quantities of water and mop up.

Personal precautions: Avoid prolonged contact with skin. Wear chemical goggles, body-covering protective clothing, chemical resistant gloves and rubber boots. Use a NIOSH-approved dust and mist respirator where spray mist occurs.

SECTION VII – Handling and Storage

Handling: Avoid contact with eyes, skin, and clothing. Avoid breathing mist. Keep container closed. Promptly clean up spills.

Storage: Keep container closed. Store in a clean steel or plastic containers. Separate from acids, reactive metals and ammonium salts. Store above 36 degrees Fahrenheit (2 degrees Celsius). If frozen, do not use and contact the company. Indefinite shelf life if kept from freezing.

SECTION VIII – CONTROL MEASURES

RESPIRATORY:	Use a NIOSH-approved dust and mist respirator where spray mist occurs.
VENTILATION:	Local exhaust. Keep containers closed. Safety shower and eyewash fountain nearby.
PROTECTIVE GLOVES:	Impervious, nitrile, rubber or better.
EYE PROTECTION:	Plastic only safety glasses, goggles or face shield
OTHER PROTECTION:	Clothing which will protect from skin contact as needed.
WORK/HYGENIC PRACTICES:	Wash hands after handling and before eating or using toiletries. Maintain clean environment with any spills removed.

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Boiling Point 212^0
Odor & Appearance	musty, clear to hazy	Specific gravity 1.39
Solubility in water	soluble	Vapor pressure ND
Vapor density	ND	Evaporation rate ND
Volatile organic compounds	0 g/l	pH (fluid) 11.3

SECTION X – STABILITY AND REACTIVITY DATA

Stability:	Stable under normal conditions
Conditions to avoid:	Do not allow to freeze
Incompatibility - materials to avoid:	Generates heat when mixed with acid. May react with ammonium salts resulting in evolution of ammonia gas. Flammable hydrogen gas may be produced on contact with aluminum, tin, lead, and zinc.
Hazardous polymerization:	Will not occur
Hazardous decomposition or by products:	None known

SECTION XI – Toxicological Information

Route of entry:	Eye contact; ingestion, skin contact
Carcinogenic status:	Not considered carcinogenic by NTP, IARC, and OSHA
Target organs:	Skin, eye, and lungs
Health effects – eye:	Moderate irritation expected
Health effects – skin:	Moderate irritation expected
Health effects – inhalation:	Spray mist is irritating to the respiratory system
Health effects – ingestion:	May cause irritation to the mouth, esophagus and stomach; may cause damage to kidney, central nervous system and blood

Carcinogenic status: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
Reproductive effects: None known.
Teratogenicity: Not expected to be a teratogen.
Mutagenicity: None known.
Epidemiology: Not known.
Sensitization to material: None known.
Synergistic materials: None known.
Irritancy: Mild.
Other important hazards: None known.
Conditions aggravated by overexposure: Pre-existing skin, eye and respiratory disorders.

SECTION XII – Ecological Information

Neutralize with large quantities of water.

SECTION XIII – Disposal Considerations

Dispose of in accordance with federal, provincial and local environmental regulations or permits.

SECTION XIV – TRANSPORTATION

Ground – USA and Puerto Rico (DOT): Not regulated; keep from freezing	Sea (IMDG): Not Regulated	HS Tariff Class – 2839.19
Ground – Canada (TDG): Not regulated; keep from freezing	Air (IATA): Not Regulated	Schedule B No. – 283919

SECTION XV – Regulatory Information

US Federal Information:

TSCA information: All ingredients are listed on the TSCA inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None reported.

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: This product does not contain any substances with SARA reporting requirements.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above the minimum concentrations.

US State Right to Know Laws:

California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

Other U.S. State "Right to Know" Lists: None known or reported by the manufacturer.

International Information:

Canadian Environmental Protection Act (CEPA): All components of this product are on the Canadian DSL list.

SECTION XVI – Other Information

REVISION DATE: July 23, 2015

Legend:
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Services
CPR: Controlled Products Regulation
DSL: Domestic Substances List
IARC: International Agency for Research on Cancer
Inh: Inhalation
LC: Lethal Concentration
LD: Lethal Dose
N/A: Not Applicable
N/Av: Not Available
N/D: Not Determined
NIOSH: National Institute of Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
RTECS: Registry of Toxic Effects of Chemical Substances
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TWA: Time Weighted Average
TSCA: Toxic Substance Control Act
WHMIS: Workplace Hazardous Materials Identification System

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