

MATERIAL SAFETY DATA SHEET

R-TEC-4N-2

SECTION 1:
IDENTIFICATION

Company Name: Address: Phone No. Fax No. Emergency Phone No. Date Prepared: Date Revised:	AQUAPHASE, INC. P.O Box 7 Gallatin, TN 37066 (615) 452-6796 (615) 451-9497 CHEM-TEL 800-255-3924 2/19/13 NONE
---	--

SECTION 2:
INGREDIENTS

<u>MATERIAL</u>	<u>CAS NO.</u>	<u>%</u>
SODIUM NITRITE	7632-00-0	10 – 20
SODIUM HYDROXIDE	1310-73-2	< 1

SECTION 3:
HEALTH HAZARDS

Ingestion: Inhalation: Skin Contact: Eye Contact: Other Information:	MAY BE TOXIC. DUE TO HIGH pH, MAY CAUSE IRRITATION TO INTERNAL TISSUES. LARGE AMOUNTS CAN RESULT IN ACUTE TOXIC EFFECTS WHICH MAY BE FATAL. NOT A LIKELY ROUTE OF EXPOSURE. INHALATION OF MIST MAY BE IRRITATING TO RESPIRATORY TRACT. PROLONGED CONTACT MAY CAUSE IRRITATION. CAUSES IRRITATION, POSSIBLE BURNS AND EYE DAMAGE. OTHER THAN ACUTE EFFECTS LISTED ABOVE, NO LONG TERM EFFECTS KNOWN.
--	---

SECTION 4:
FIRST AID

Ingestion: Inhalation: Skin Contact: Eye Contact: Notes to Physician:	DRINK SEVERAL GLASSES OF WATER TO DILUTE. DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET IMMEDIATE MEDICAL ATTENTION. IF CYANOSIS (blue skin) DEVELOPS, ADMINISTER OXYGEN. REMOVE VICTIM TO FRESH AIR. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. GET MEDICAL ATTENTION IF SYMPTOMS PERSIST. WASH WITH PLAIN WATER OR SOAP AND WATER. IMMEDIATELY FLUSH WITH CLEAR WATER FOR 15 MINUTES AND GET MEDICAL ATTENTION IF IRRITATION PERSISTS. NO ANTIDOTES KNOWN. TREAT SYMPTOMS SUPPORTIVELY.
---	--

SECTION 5:
FIRE AND EXPLOSION HAZARD DATA

Flash Point/Method: Lower Limit in Air: Upper Limit in Air: Extinguishing Media: Procedures: Unusual Hazards:	NONE N.A. N.A. FLOOD WITH WATER. HEAVY WATER JET ADVANTAGEOUS. IF WATER IS EVAPORATED, THE DRY NITRITE CAN BREAK DOWN AT TEMPERATURES ABOVE 610°F TO RELEASE TOXIC NITROGEN OXIDE GASES. WEAR NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. IF WATER IS EVAPORATED, THE DRY NITRITE IS AN OXIDIZING AGENT AND CAN SUPPLY OXYGEN TO STIMULATE OR ACCELERATE THE COMBUSTION OF OTHER COMBUSTIBLES.
--	--

MATERIAL SAFETY DATA SHEET

R-TEC-4N-2

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Environmental Precautions: Procedures for Clean Up: Prohibited Materials:	WEAR PERSONAL PROTECTIVE EQUIPMENT AS SPECIFIED IN SECTION 8. DO NOT ALLOW CONTAMINATION OF WATERWAYS. FLUSH TO SANITARY SEWER. SMALL SPILLS MAY BE FLUSHED WITH COPIOUS QUANTITIES OF WATER TO A SANITARY SEWER OR WASTE TREATMENT FACILITY. LARGER SPILLS SHOULD BE DIKED TO PREVENT RUN OFF AND PUMPED INTO A SUITABLE CONTAINER FOR DISPOSAL. IF ABSORBANT IS USED TO SOAK UP SPILLED PRODUCT, USE SAND OR A NON-FLAMMABLE MEDIA. NONE
--	---

SECTION 7: HANDLING AND STORAGE

Handling: Storage:	NORMAL INDUSTRIAL HANDLING PRACTICES. KEEP OUT OF REACH OF CHILDREN. STORE IN A COOL, DRY PLACE. KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE.
-----------------------	--

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Precautionary Measures: Engineering Controls: Control Limits: Equipment for Personal Protection:	STANDARD INDUSTRIAL HANDLING PRECAUTIONS. WASH THOROUGHLY AFTER HANDLING CHEMICALS. USE WITH ADEQUATE VENTILATION TO KEEP EXPOSURES BELOW OCCUPATIONAL EXPOSURE LIMITS. SODIUM HYDROXIDE: OSHA PEL: 2 mg/m ³ Ceiling; ACGIH TLV: 2 mg/m ³ Ceiling. WEAR SAFETY GLASSES OR GOGGLES, IMPERVIOUS GLOVES AND CLOTHING. EYEWASH STATION AND SAFETY SHOWER IN AREA OF USE.
--	--

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Odor: pH (undiluted): Specific Gravity: Density: Solubility in Water: Boiling Point: Percent Volatile: Vapor Pressure (mmHg): Vapor Density: Evaporation Rate:	CLEAR TO SLIGHTLY HAZY LIGHT YELLOW LIQUID CHARACTERISTIC ~12.3 1.15 9.6 lbs./gal. COMPLETE 212°F >60 (WATER) N.D. N.D. (water=1): ~1
--	---

SECTION 10: STABILITY AND REACTIVITY

Stability: Conditions to Avoid: Hazardous Polymerization: Conditions to Avoid: Incompatibility: Hazardous Decomposition Products:	STABLE NONE STABLE NONE MAY REACT WITH STRONG OXIDIZING AGENTS OR ACIDS. IF WATER EVAPORATED, OXIDES OF CARBON AND NITROGEN COULD BE PRODUCED BY COMBUSTION. CONTACT WITH ACIDS CAN RELEASE TOXIC NITROGEN GASES.
---	--

SECTION 11: TOXICOLOGICAL INFORMATION

Material & Tests: Symptoms:	SODIUM NITRITE: ORAL RAT LD50 = 180 mg/kg; INHALATION RAT LC50 = 5500 ug/m ³ ; IRRITATION EYE RABBIT = 500 mg/24 HR = MILD. SODIUM HYDROXIDE: IRRITATION DATA; SKIN (RABBIT) = 500 mg/24 H; EYE (RABBIT) = 50 ug/24H (SEVERE).
--------------------------------	--

MATERIAL SAFETY DATA SHEET

R-TEC-4N-2

SECTION 12: ECOLOGICAL INFORMATION

Aquatic Toxicity:	SODIUM NITRITE: 96 HR LC50 RAINBOW TROUT (JUVENILE) = 0.19 mg/l (flow-through); 24 HR NOEL = 17.1 ppm (fresh water); 48 HR TLm MOSQUITO FISH = 7.5 ppm (fresh water). SODIUM HYDROXIDE: 48 HR LC50 BLUEGILL SUNFISH = 99 mg/l; 96 HR LC50 MOSQUITO FISH = 125 mg/l; 48 HR LC50 BROWN SHRIMP = 30 - 100 mg/l.
-------------------	--

SECTION 13: DISPOSAL CONSIDERATIONS

General Considerations: Procedures:	THIS PRODUCT IS NOT A HAZARDOUS WASTE. DISPOSAL BY USE PREFERRED BUT IF THIS NOT POSSIBLE, DILUTE SMALL QUANTITIES WITH COPIOUS QUANTITIES OF WATER AND FLUSH TO WASTE, PREFERABLY TO A SANITARY SEWER. HOWEVER, OBEY ALL FEDERAL, STATE OR LOCAL REGULATIONS.
--	--

SECTION 14: TRANSPORT INFORMATION

Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM NITRITE)
Primary Hazard Class:	9
Identification No.:	UN3082
Packing Group:	III
2008 NAERG No.:	171
NOTE:	SOME CONTAINERS MAY BE DOT EXEMPT; PLEASE CHECK BILL OF LADING FOR EXACT CONTAINER CLASSIFICATION.

SECTION 15: REGULATORY INFORMATION

<u>Regulation</u>	<u>Material</u>	<u>RQ</u>	<u>Max. %</u>
CERCLA (40 CFR302.4):	SODIUM HYDROXIDE	1000	1
SARA 302 (Sect. 355, Appendix A):	<u>Material</u>	<u>TPQ</u>	<u>Max. %</u>
SARA 311/312:	<u>Categories</u>		<u>Hazards</u>
	IMMEDIATE HEALTH		EYE IRRITANT
SARA 313 (40 CFR 372.45):	<u>Material</u>		<u>Max. %</u>
CWA (40 CFR 401.15):	NONE		
RCRA (40 CFR 261):	NONE		
OSHA (29 CFR 1910.1200):	ALL COMPONENTS LISTED UNDER THIS STANDARD ARE SHOWN IN SECTION 2 OF THIS MSDS.		
TSCA:	ALL INGREDIENTS IN THIS PRODUCT ARE LISTED IN THE TSCA INVENTORY.		

SPECIAL STATE REGULATIONS

<u>STATE</u>	<u>INGREDIENT</u>	<u>%</u>	<u>REGULATORY DESIGNATION</u>
MA, MN, NY, PA, WA	SODIUM HYDROXIDE	1	HAZARDOUS SUBSTANCES LISTS

MATERIAL SAFETY DATA SHEET

R-TEC-4N-2

SECTION 16 OTHER INFORMATION

SUGGESTED HAZARD RATINGS

<u>NFPA*</u>	<u>HAZARD</u>	<u>HMIS*</u>
2	HEALTH (Blue)	2
0	FIRE (Red)	0
0	REACTIVITY (Yellow)	0
	PERSONAL PROTECTION	B
	SPECIAL HAZARDS	

*Notes: 0 = Insignificant; 1 = Slight; 2 = Moderate; 3 = High; 4 = Extreme

The data contained in this Material Safety Data Sheet has been prepared based upon an evaluation of the ingredients in the product, their concentration in the product and potential interactions. The information is offered in good faith and is believed to be accurate. It is furnished to the customer who is urged to study it carefully to become aware of hazards, if any, in the storage, handling, use and disposal of the product; and to insure his employees are properly informed and advised of all safety precautions required. The information is furnished for compliance with the "Occupational Safety and Health Act" of 1970, the "Hazards Communication Act" of 1983 as well as various other Federal, State and Local regulations. Use or dissemination of all or part of this information for any other purpose is prohibited by law.