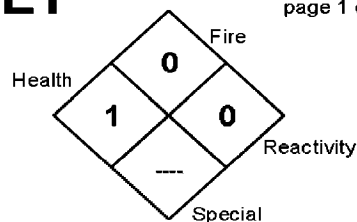


MATERIAL SAFETY DATA SHEET

BRENNIAG

NFPA 704 DESIGNATION
HAZARD RATING



4=Extreme
3=High
2=Moderate
1=Slight
0=Insignificant

Brenntag MSDS #:	BPI-00286
MSDS Revision/Issue Date:	09/05/08
Supersedes Revision Date:	New

1. CHEMICAL PRODUCT IDENTIFICATION & COMPANY IDENTIFICATION

PRODUCT IDENTIFIER:	Aquapure 3655		
GENERAL USE:	Formulated for use in water treatment applications to provide corrosion inhibition and scale control.		
PRODUCT DESCRIPTION:	A clear, colorless to very pale yellow solution having no characteristic odor.		
INFORMATION PROVIDED BY:	Brenntag Pacific, Inc. 5700 N.W. Front Avenue Portland, OR 97210	EMERGENCY PHONE NUMBERS	
For MSDS call:	PHONE: 503-242-0200	CHEMTREC:	800-424-9300
		CANUTEC:	613-996-6666

2. COMPOSITION & INFORMATION ON INGREDIENTS

COMPONENT	CAS #	OSHA HAZARD	WT %	ACGIH		OSHA	
				TLV _(TWA)	STEL	PEL _(TWA)	STEL
Monosodium Phosphate	7558-80-7	Slight to Moderate Eye, Skin & Respiratory Irritant	20 ± 5	None	None	None	None
Sodium Hexametaphosphate	10124-56-8	Slight to Moderate Eye & Respiratory Irritant	20 ± 5	None	None	None	None

NDA = No Data Available N/A = Not Applicable

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:	A clear, colorless to very pale yellow, mildly acidic liquid having no characteristic odor. Direct contact with this concentrated product's liquid or mist may cause slight to moderate eye and skin irritation. Inhalation of mists, from this concentrated product, may cause slight to moderate respiratory tract irritation.
POTENTIAL HEALTH EFFECTS	
INHALATION:	Inhalation of this concentrated product's mists may cause slight to moderate irritation to the nose, throat and mucous membranes. Symptoms of exposure may include sneezing, coughing and possible chest discomfort or pain.
EYE CONTACT:	Exposure to the liquid or mists, of this concentrated product, may cause slight to moderate eye irritation. Symptoms of exposure may include tearing, redness, possible swelling and a possibly painful stinging sensation. Corneal damage with impairment of vision is not expected to occur from contact with this product.
SKIN CONTACT:	Exposure, to the concentrated product's liquid or mist, may cause slight to moderate skin irritation. There is no data indicating this product is absorbed through the skin.
INGESTION:	Ingestion, of this concentrated product, may cause slight to moderate irritation to the entire gastrointestinal tract, including the stomach and intestines, characterized by possible nausea, vomiting, abdominal discomfort and/or diarrhea.
CHRONIC:	The chronic health exposure effects, of this concentrated product, are expected to be the same as for acute exposure.

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4. FIRST AID MEASURES

INHALATION: If inhaled, and breathing is difficult, immediately move to fresh air. If symptoms persist, call a physician.

EYE CONTACT: In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower lids occasionally. Remove contact lenses, if worn. Get medical attention if irritation persists.

SKIN CONTACT: In case of contact, flush skin with clean running water. Remove contaminated clothing and shoes and wash before reuse. If irritation occurs and persists, get medical attention.

INGESTION: If swallowed, DO NOT induce vomiting. If fully conscious, give plenty of water to drink. Get medical attention.

NOTE TO PHYSICIANS: Treat exposure symptomatically.

5. FIRE FIGHTING MEASURES

Flashpoint and Method: Not applicable

Flammable Limits (in air, % by volume) Lower: Not applicable **Upper:** Not applicable

Autoignition Temperature: Not applicable

GENERAL HAZARD: This product is an aqueous, mildly acidic, inorganic salt solution. The Uniform Fire Code health hazard classification for this product is: **Irritant**. This product may produce hazardous decomposition products.

FIRE FIGHTING INSTRUCTIONS: **EXTINGUISHING MEDIA:** Water, foam, CO₂ or dry chemical.
Use the extinguishing media best suited to controlling the surrounding fire. Use a water spray or fog to cool the containers exposed to the heat of a fire.

FIRE FIGHTING EQUIPMENT: Fire fighters should wear full protective equipment, including self-contained breathing apparatus.

HAZARDOUS COMBUSTION PRODUCTS: When heated to dryness and decomposition, it emits toxic phosphorus oxides and sodium oxide.

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL: Wearing recommended protective equipment and clothing, dike the spill and pick up the bulk of liquid using pumps or a vacuum truck, or absorb the liquid in sand or a commercial absorbent. Place in approved containers for recovery, disposal, or satellite accumulation. Neutralize the acidity, of the remaining liquid, using soda ash, lime, or other agent appropriate for neutralizing acidic liquids. Flush the spill area with water; collect the rinsates for disposal or sewer, as appropriate.

WATER SPILL: Wear recommended protective equipment and clothing if contact with hazardous material can occur. Stop or divert water flow. Dike contaminated water and remove for disposal and/or treatment. As appropriate, notify all downstream users of possible contamination.

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7. HANDLING AND STORAGE**STORAGE TEMPERATURE:** Ambient**STORAGE PRESSURE:** Ambient

GENERAL: Store in a cool, dry, well ventilated area away from sources of contamination. Protect eyes, skin and clothing from contact with this product. Wear recommended personnel protective equipment. Avoid breathing mists or aerosols. Use with adequate ventilation. Do not drink this product. Keep the container tightly closed when not in use. Wash thoroughly after handling.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL MEASURES: Use a local or general, mechanical exhaust ventilation system capable of maintaining emissions, in the work area, below levels that may cause irritation.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

RESPIRATOR: Respiratory protection is not normally required when used as directed. However, if use does cause misting or an aerosol that may cause irritation, then, wear a NIOSH approved full facepiece or half mask air-purifying cartridge respirator equipped with a good mist / particulate cartridge or supplied air.

EYES: Wear chemical goggles (recommended by ANSI Z87.1-1979), unless a full facepiece respirator is worn.

GLOVES: Wear plastic or rubber gloves when handling this product.

CLOTHING & EQUIPMENT: If splashing or contact is likely, wear a plastic or rubber apron.

FOOTWEAR: If contact is likely, wear rubber boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless to very pale yellow	Bulk Density (pounds/ft³):	Not applicable
Physical State:	Liquid	Vapor Pressure:	No data available
Odor:	No characteristic	Vapor Density (air=1):	No data available
Odor Threshold:	No data available	Evaporation Rate (n-Butyl Acetate=1):	No data available
Molecular Formula:	Mixture	VOC Content:	Not applicable
Molecular Weight:	Not applicable	% Volatile:	Approximately 60
Boiling Point:	Greater than 100° C. (212° F.)	Solubility in H₂O:	Complete
Freezing/Melting Point:	Less than 0° C. (32° F.)	Octanol/Water Partition Coefficient:	No data available
Specific Gravity:	Approximately 1.3672 @ 20° C.	pH (as is):	3.35 to 4.35
Density (pounds/gallon):	Approximately 11.4	pH (1% solution):	No data available

10. STABILITY AND REACTIVITY

GENERAL: This product is stable and hazardous polymerization will not occur.

CONDITIONS TO AVOID: None known

INCOMPATIBLE MATERIAL: Sulfides, sulfites, cyanides and chlorine releasers.

HAZARDOUS DECOMPOSITION PRODUCTS: When heated to dryness and decomposition, it emits toxic oxides of phosphorus and sodium.

SENSITIVITY TO MECHANICAL IMPACT: This product is not sensitive to mechanical impact.

SENSITIVITY TO STATIC DISCHARGE: This product is not sensitive to static discharge.

IMPERSONAL While Brenntag Pacific Corporation's information contains no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with the applicable federal, state, and local law. This MSDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.

11. TOXICOLOGICAL INFORMATION

Components:	Monosodium Phosphate	Sodium Hexametaphosphate
Eye Contact:	Rabbit: Standard Draize Test, 150 mg; Mild	No data available
Skin Contact:	No data available	No data available
Oral Rat LD₅₀:	8,290 mg/kg	6,200 mg/kg
Dermal Rabbit LD₅₀:	No data available	No data available
Inhalation Rat LC₅₀:	No data available	No data available
Human Data:	Human: Standard Draize Test, 50 mg; Mild	No data available
Other Toxicological Data:	No data available	Oral Mouse LD ₅₀ : 4,320 mg/kg
Carcinogenicity:	No data available	No data available
Teratogenicity:	No data available	No data available
Mutagenicity:	No data available	No data available
Synergistic Products:	None reported	None reported
Target Organs:	Eyes, Skin, Mucous membranes & Lungs	Eyes & Mucous membranes
Medical Conditions		
Aggravated By Exposure:	Skin or Respiratory disorders	Respiratory disorders

12. ECOLOGICAL INFORMATION**ENVIRONMENTAL FATE:**

This product is completely soluble in water and may slightly affect the pH of water. Sodium Hexametaphosphate in an aqueous solution will very slowly hydrolyze to a Sodium Orthophosphate. Inorganic phosphates, in contact with soil, sub-surface or surface waters, may be taken up by plants and utilized as essential nutrients. Phosphates may also form precipitates, usually with Calcium or Magnesium. The resultant compounds are insoluble in water; becoming part of the soil.

ENVIRONMENTAL CONSIDERATIONS:

The aquatic toxicity for this product has not been determined.

13. DISPOSAL CONSIDERATIONS

RCRA 40 CFR 261 CLASSIFICATION: Non-Hazardous Waste

U.S. EPA WASTE NUMBER/DESCRIPTION: Not applicable

If this product is disposed of as shipped, it does not meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of a hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D due to toxicity. As a non-hazardous liquid waste, it should be disposed of in accordance with all local, state, and federal regulations. Consult state or local officials for proper disposal method.

14. TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME:	Not Restricted		
	Hazard Class:	Not applicable	UN Number: Not applicable
	Primary Label:	None Required	Packing Group: Not applicable
	Primary/Subsidiary Placards:	None Required	Subsidiary Label(s): None Required
DOT Reportable Quantity (RQ):	Not listed	RQ for Product:	Not applicable
Marine Pollutant:	No		
2004 North American Emergency Response Guidebook No.:	Not applicable		
TDG PROPER SHIPPING NAME:	NOT RESTRICTED		
	Hazard Class:	Not applicable	UN Number: Not applicable
	Primary Label:	None Required	Packing Group: Not applicable
	Primary/Subsidiary Placards:	None Required	Subsidiary Label(s): None Required
TDG Reportable Quantity (RQ): #	Not applicable		
TDG Schedule XII:	Not applicable		
Regulated Limit (RL): ##	Not listed	RL for Product:	Not applicable
Other Shipping Information:	None		

Canadian Transportation of Dangerous Goods Regulations (TDGR), Part IX, Table I, Quantities or levels for Immediate Reporting: releases of reportable quantities, RQ, that meet the definition of a "dangerous occurrence" (a threat to life, health, property, or the environment) must be reported to the appropriate authorities as outlined in TDGR 9.13(1) and 9.14(1).

Reporting to Environment Canada is required for any releases exceeding the regulated limits. RL of 9.2 materials (primary or secondary). The regulated limits are found in Schedule XIII of the TDGR. ~~IMPORTANT: While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with the applicable federal, state, and local law. This MSDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.~~

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15. REGULATORY INFORMATION

COMPONENTS:	<u>Monosodium Phosphate</u>	<u>Sodium Hexametaphosphate</u>
<u>OSHA Target Organs:</u>	Eyes, Skin, Mucous membranes & Lungs	Eyes & Mucous membranes

Carcinogenic Potential:

Regulated by OSHA:	No	No
Listed on NTP Report:	No	No
Listed by IARC:	No	No
IARC Group:	Not applicable	Not applicable
ACGIH Appendix A:	Not listed	Not listed
A1 Confirmed Human:	Not applicable	Not applicable
A2 Suspected Human:	Not applicable	Not applicable

U.S. EPA Requirements**Release Reporting****CERCLA (40 CFR 302)**

Listed Substance:	Not listed	Not listed
Reportable Quantity:	Not applicable	Not applicable
Category:	Not applicable	Not applicable
RCRA Waste No.:	Not applicable	Not applicable
Unlisted Substance:	Not applicable	Not applicable
Reportable Quantity:	Not applicable	Not applicable
Characteristic:	Not applicable	Not applicable
RCRA Waste No.:	Not applicable	Not applicable

SARA TITLE III**Section 302 & 303 (40 CFR 355):**

Listed Substance:	Not listed	Not listed
Reportable Quantity:	Not applicable	Not applicable
Planning Threshold:	Not applicable	Not applicable

Section 311 & 312 (40 CFR 370):

Hazard Categories (product):	Fire: <u>N</u>	Sudden Release of Pressure: <u>N</u>	Reactive: <u>N</u>	Acute Health: <u>Y</u>	Chronic Health: <u>N</u>
Planning threshold:	10,000 pounds	10,000 pounds			

Section 313 (40 CFR 372):

Listed Toxic Chemical:	Not listed	Not listed
Reporting Threshold:	Not applicable	Not applicable

U.S. TSCA Status

Listed (40 CFR 710):	Yes	Yes
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State Regulations**State of California: Safe Drinking Water and Toxins Enforcement Act, 1986 (Proposition 65):**

Carcinogen:	No	No
Reproductive Toxin:	No	No

Other Regulations

State Right To Know Laws:	None known
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Canadian Regulations**Product Information:**

Controlled Product:	Yes
WHMIS Hazard Symbols:	Material Causing Other Toxic Effects
WHMIS Class & Division:	D.2B

Ingredient Information:

IDL Substance:	No	No
DSL or NDSL Lists:	DSL	DSL

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16. OTHER INFORMATION

EPA Registration number: Not applicable

Approved Product Uses: Not applicable

Special Notes:

This product does not contain any material, which the State of California has found to cause cancer and/or birth defects or other reproductive harm.

Special Instructions:

Store Aquapure 3655 in an area and manner that will keep it free from any contamination.

Do not add this concentrated product to hypochlorite bleaches, chlorine sanitizers or chlorinated cleaners as that may liberate toxic, corrosive Chlorine gas.

MSDS Revision Information: Information Revised This Issue Date: **Updated per new ownership and information.**
Form Revision made 2/03/06

MSDS Distributed by: Brenntag Pacific, Inc.
NW Environmental Department
Phone: 503-242-0200 FAX: 503-412-3390

Prepared By: Edward Doheny **Date Prepared:** September 5, 2008

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