

# MATERIAL SAFETY DATA SHEET

LaMOTTE COMPANY  
PO BOX 329 - CHESTERTOWN - MARYLAND - 21620  
TELEPHONE # FOR INFORMATION 410-778-3100

**24 Hour Emergency Number (CHEM-TEL) 800-255-3924**

## 1. PRODUCT IDENTIFICATION

**Buffered Ammonia Reagent**

*Code Nr.* **4020**

## 2. HAZARDOUS INGREDIENTS

NAME	CAS #	TSCA #	%	PEL	TLV
Ammonium Hydroxide (16% w/w aqueous ammonia)	1336-21-6		2 asNH3	50 ppm (as NH3)	25 ppm (as NH3)
Ammonium Chloride	12125-02-9		5	10 mg/cubic m (fume)	10 mg/cubic m (fume)

## 3. NON-HAZARDOUS INGREDIENTS EXCEPT WATER (7732-18-5)

NAME	CAS #	%
Water to 100%		

## 4. PHYSICAL DATA

<i>Appearance:</i> Clear Colorless Liquid			
<i>Solubility in Water:</i> Soluble	<i>Odor:</i> slight ammonia	<i>Boiling Point:</i> unknown	<i>Melt. Point:</i> N/A
<i>Vapor Pressure:</i> unknown	<i>Vapor Density:</i> <1 (Air=1)	<i>pH:</i> 9.7	

## 5. FIRE AND EXPLOSION DATA

<i>Flash Point (method used):</i> N/A	<i>Flammable Limit: LEL:</i> N/A	<i>UEL:</i> N/A
<i>Extinguishing Media:</i> Not a fire hazard		
<i>HMIS Hazard: Health - 1 Flammability - 0 Reactivity - 0</i> <span style="float: right;"><i>Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least</i></span>		
<i>Special Fire Fighting Procedures:</i> N/A		
<i>Unusual Fire &amp; Explosion Hazard:</i> May emit toxic fumes under fire conditions.		

## 6. REACTIVITY DATA

<i>Stability:</i>	<i>Conditions to avoid:</i> Heat
<input checked="" type="checkbox"/> <i>Stable</i>	<i>Incompatibility (Materials to avoid):</i> Strong acids, strong oxidizers
<input type="checkbox"/> <i>Unstable</i>	<i>Hazardous Decomposition Products:</i> ammonia, ammonium chloride fume

## 7. HEALTH HAZARD DATA

<i>Toxicity:</i> orl rat LD50: 350 mg/kg for Ammonium Hydroxide	
<i>Primary Route of Entry:</i>	<input checked="" type="checkbox"/> <i>Inhalation</i> <input checked="" type="checkbox"/> <i>Skin</i> <i>Carcinogenicity:</i> <input checked="" type="checkbox"/> <i>None</i> <input type="checkbox"/> <i>NTP</i> <input checked="" type="checkbox"/> <i>Ingestion</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>OSHA</i> <input type="checkbox"/> <i>IARC</i>
<i>Other Health Related Comments:</i>	
<i>Target Organs:</i> N/A	
<i>Signs and symptoms of exposure:</i> May irritate eyes and skin. Harmful if swallowed.	
<i>Medical Condition Aggravated by Exposure:</i> N/A	

## 8. EMERGENCY FIRST AID PROCEDURES

<i>Eye Contact:</i> Flush with water.
<i>Ingestion:</i> Drink water. Consult physician.
<i>Inhalation:</i> Remove to fresh air.
<i>Skin Contact:</i> Flush with water.

## 9. SPILL AND DISPOSAL PROCEDURES

<i>Spill and Leak:</i> Mop up and flush down drain with excess water.
<i>Disposal:</i> Flush down drain. Dispose according to federal, state and local regulations.

## 10. PRECAUTIONARY MEASURES

<i>In Handling:</i> <input checked="" type="checkbox"/> <i>Gloves</i> <input checked="" type="checkbox"/> <i>Eye Protection</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Other:</i>
<i>Ventilation</i> <input checked="" type="checkbox"/> <i>Normal</i> <input type="checkbox"/> <i>Mechanical</i> <input type="checkbox"/> <i>Respiratory Protection</i>
<i>Work/Hygienic Practices:</i> N/A

## 11. SPECIAL PRECAUTIONS

Store tightly closed, away from heat & sunlight.

**DATE:** 11/28/04

The above information is believed to be correct but does not claim to be all inclusive and should be used only as a guide.

▲ This is a toxic chemical subject to reporting requirements of section 313 of EPCRA and 40CFR372.



# MSDS

## Material Safety Data Sheet

PO Box 329 • 802 Washington Avenue • Chestertown, MD 21620 • USA

Telephone Number For Information 410-778-3100

24 Hour Emergency Number (CHEM-TEL) : USA, Canada, Puerto Rico 800-255-3924;

Outside North American continent: 813-248-0585 (call collect)

### 1. Product Identification

**Product Code:**

**6253**

**Product Description:**

Sodium Citrate, 10%

**Manufactured By:**

LaMotte Company

802 Washington Avenue

Chestertown, MD 21620

### 2. Composition/Information on Ingredients

Hazardous	Name	CAS #	%	OSHA PEL	ACGIH TLV
Yes	Kathon <sup>R</sup> CG/ICP Preservative	N/A	<0.1	N/E	N/E
No	Sodium Citrate Dihydrate	6132-04-3	10	N/E	N/E
No	Water to 100%	7732-18-5	90		

### 3. Hazards Overview

**Primary Route of Entry:** Ingestion

Extremely large oral doses may produce gastrointestinal disturbances.

**HMIS Hazard:** (Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least)

Health: 0      Flammability: 0      Reactivity: 0

**Carcinogenicity:** None

**Other Health Related Comments:** See Section 11.

### 4. First Aid Measures

**Eye Contact:** Flush with water for 15 minutes.

**Skin Contact:** Wash with soap and water.

**Ingestion:** Drink glass of water. Consult physician.

**Inhalation:** N/A

### 5. Fire Fighting Measures

**Flash Point:** N/A      **LEL:** N/A      **UEL:** N/A

#### Fire Rating

**Extinguishing Media:** Not a fire hazard

**Special Fire Fighting Procedures:** N/A

**Hazardous Combustion and/or Decomposition Products:** N/A

**Unusual Fire & Explosion Hazard:** N/A

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**Product Code: 6253**

**Product Description: Sodium Citrate, 10%**

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**6. Accidental Release Measures**

Mop up with paper towels.

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**7. Handling & Storage**

No special storage requirements.

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**8. Exposure Controls/Personal Protection**

**Ventilation**

No special ventilation requirements

**Protection When Handling**

Eye Protection

**Work/Hygienic Practices:** N/A

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**9. Physical & Chemical Properties**

**Appearance:** Clear Colorless Liquid

**Boiling Point:** > 100 deg C

**Melting Point:** Unknown

**pH:** 9

**Odor:** None

**Vapor Density:** <1 (Air=1)

**Solubility in Water:** Soluble

**Vapor Pressure:** <17 @ 20 deg C

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**10. Stability & Reactivity**

**Stable:** Yes

**Conditions to Avoid:** N/A

**Materials to Avoid:** N/A

**Hazardous Decomposition Products:** N/A

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**11. Toxicological Information**

Kathon<sup>®</sup> CG/ICP preservative is corrosive (acidic) and a potential skin sensitizer. However, it is present in product #6253 below de minimis concentration (<0.1%). **Product is non-toxic.**

**Target Organs:** N/A

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**12. Ecological Information**

Information not Available

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**13. Disposal Considerations**

Wash down drain with excess water. Dispose according to federal, state and local regulations.

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**14. Transport Information**

Not regulated for transport

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**Product Code: 6253****Product Description: Sodium Citrate, 10%**

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**15. Regulatory Information****Chemical Inventory Status**

<b>Ingredient</b>	<b>USA TSCA</b>	<b>Europe EC</b>	<b>---Canada--- DSL NDSL</b>		<b>Australia</b>	<b>Japan</b>
Kathon <sup>R</sup> CG/ICP Preservative	No (Exempt)*					
Sodium Citrate, anhydrous (68-04-2) Water to 100%	Yes	Yes	Yes	No	Yes	Yes

\*Kathon<sup>R</sup> is regulated in the U.S. under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is therefore exempt from US TSCA Inventory listing requirements.

**Federal, State, & International Regulations**

<b>Ingredient</b>	<b>---SARA 302---</b>		<b>----- SARA 313 -----</b>			<b>RCRA</b>	<b>TSCA</b>
	<b>RQ</b>	<b>TPQ</b>	<b>Listed</b>	<b>Chemical Category</b>	<b>CERCLA</b>	<b>261.33</b>	<b>8(D)</b>
Kathon <sup>R</sup> CG/ICP Preservative	No	No	No	No	No	No	No
Sodium Citrate, anhydrous (68-04-2) Water to 100%	No	No	No	No	No	No	No

<b>Ingredient</b>	<b>----- SARA 311/312 -----</b>			<b>----- Australia -----</b>		<b>This MSDS is WHMIS Compliant</b>
	<b>Hazard Categories</b>			<b>Hazchem Code</b>	<b>Poison Schedule</b>	
Kathon <sup>R</sup> CG/ICP Preservative	Acute: Yes	Chronic: Yes	Fire: No			
	Pressure: No	Reactivity: No	(Pure/Liquid)			
Sodium Citrate, anhydrous (68-04-2) Water to 100%	Acute: No	Chronic: No	Fire: No	None	None Allocated	
	Pressure: No	Reactivity: No	(Pure/Solid)	Allocated		
<b>For product #6253 liquid mixture, as a whole</b>	Acute: No	Chronic: No	Fire: No	None	None Allocated	Yes
	Pressure: No	Reactivity: No		Allocated		

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**16. Other Information****Prepared By: IP****Revised: 5/11/2005**



# MSDS

## Material Safety Data Sheet

PO Box 329 • 802 Washington Avenue • Chestertown, MD 21620 • USA

Telephone Number For Information 410-778-3100

24 Hour Emergency Number (CHEM-TEL) : USA, Canada, Puerto Rico 800-255-3924;

Outside North American continent: 813-248-0585 (call collect)

### 1. Product Identification

**Product Code:** 4021  
**Product Description:** PAN Indicator

### **Manufactured By:**

LaMotte Company  
802 Washington Avenue  
Chestertown, MD 21620

### 2. Composition/Information on Ingredients

Hazardous	Name	CAS #	%	OSHA PEL	ACGIH TLV
Yes	Methanol	67-56-1	>99%	200 ppm	200 ppm
Yes	1-(2-pyridylazo)-2-naphthol	85-85-8	<0.1	N/E	N/E

### 3. Hazards Overview

**Primary Route of Entry:** Ingestion Inhalation Skin

**Poison! Danger! Vapor and liquid harmful. May be fatal or cause blindness if swallowed.** Irritating to skin, eyes and respiratory tract. Inhalation can cause headache, dizziness, nausea. Affects central nervous system and liver. Flammable liquid and vapor.

**HMIS Hazard:** (Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least)

Health: 3 Flammability: 3 Reactivity: 1

**Carcinogenicity:** None

**Other Health Related Comments:**

### 4. First Aid Measures

**Eye Contact:** Immediately flush with water for 15 minutes. Consult physician.

**Skin Contact:** Flush with water. Wash with soap and water.

**Ingestion:** Call a physician immediately.

**Inhalation:** Remove to fresh air. Give artificial respiration if breathing has stopped. If breathing is difficult, give oxygen.

### 5. Fire Fighting Measures

**Flash Point:** 52 deg F-closed cup **LEL:** 6.7% **UEL:** 36.5%

**Flammable liquid: Do not use near heat, sparks, flame, static electricity or other sources of ignition.**

#### Fire Rating

**Extinguishing Media:** Dry chemical, CO<sub>2</sub>, or water spray

**Special Fire Fighting Procedures:** Firefighters wear self-contained breathing apparatus

**Hazardous Combustion and/or Decomposition Products:** CO<sub>x</sub> and formaldehyde.

**Unusual Fire & Explosion Hazard:** Vapors may travel to ignition source and flash back.

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**Product Code: 4021**

**Product Description: PAN Indicator**

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### **6. Accidental Release Measures**

Eliminate all sources of ignition. Use non-sparking tools for clean up. Absorb on paper. Evaporate on iron pan in fume hood.

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### **7. Handling & Storage**

Store in cool, dry, well-ventilated location, away from any area where fire hazard exists. Large containers should be bonded and grounded for transfers to avoid static sparks. Do not use near heat or flame.

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### **8. Exposure Controls/Personal Protection**

#### **Ventilation**

A system of local and/or general exhaust is recommended.

#### **Protection When Handling**

Gloves Eye Protection Lab Coat

**Work/Hygienic Practices:** Use with adequate ventilation and avoid contact with skin.

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### **9. Physical & Chemical Properties**

<b>Appearance:</b>	Clear Amber Liquid	<b>Boiling Point:</b>	150 deg F (65 C)
		<b>Melting Point:</b>	N/A
		<b>pH:</b>	N/A
<b>Odor:</b>	Alcohol	<b>Vapor Density:</b>	1.1(Air=1)
<b>Solubility in Water:</b>	Soluble	<b>Vapor Pressure:</b>	98mm @68 F(20 C)

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### **10. Stability & Reactivity**

<b>Stable:</b>	Yes
<b>Conditions to Avoid:</b>	Heat, flame, sources of ignition
<b>Materials to Avoid:</b>	Strong oxidizers such as nitrates, perchlorates, or sulfuric acid. May react with metallic aluminum to generate flammable hydrogen gas.

**Hazardous Decomposition Products:** COx and formaldehyde.

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### **11. Toxicological Information**

**Oral human LDLo: 143 mg/kg for methanol;** Usual fatal dose: 100-125 milliliters.  
Oral rat LD50: 5628 mg/kg. Methanol investigated as a mutagen, reproductive effector.

**Target Organs:** Eyes Liver Central Nervous System

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### **12. Ecological Information**

When released into the soil, water, or air methanol is expected to readily biodegrade; it is expected to be slightly toxic to aquatic life.

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### **13. Disposal Considerations**

Small quantity: Flush down drain with excess water. Large quantity: Atomize into an incinerator. Dispose according to federal, state and local regulations.

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**Product Code: 4021**

**Product Description: PAN Indicator**

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**14. Transport Information**

Domestic:

**Proper Shipping Name:** METHANOL

**Hazard Class/Div:** 3

**UN/NA:** UN1230

**Packing Group:** II

International:

**Proper Shipping Name:** METHANOL

**Hazard Class/Div:** 3, 6.1

**UN/NA:** UN1230

**Packing Group:** II

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**15. Regulatory Information**

**Chemical Inventory Status**

<b>Ingredient</b>	<b>USA</b>	<b>Europe</b>	<b>---Canada---</b>		<b>Australia</b>	<b>Japan</b>
	<b>TSCA</b>	<b>EC</b>	<b>DSL</b>	<b>NDSL</b>		
Methanol	Yes	Yes	Yes	No	Yes	Yes
1-(2-pyridylazo)-2-naphthol	Yes	Yes	Yes	No	Yes	No

**Federal, State, & International Regulations**

<b>Ingredient</b>	<b>---SARA 302---</b>		<b>----- SARA 313 -----</b>			<b>RCRA 261.33</b>	<b>TSCA 8(D)</b>
	<b>RQ</b>	<b>TPQ</b>	<b>Listed</b>	<b>Chemical Category</b>	<b>CERCLA</b>		
Methanol	No	No	Yes	No	5000	U154	No
1-(2-pyridylazo)-2-naphthol	No	No	No	No	No	No	No

<b>Ingredient</b>	<b>----- SARA 311/312 -----</b>			<b>----- Australia -----</b>		<b>This MSDS is WHMIS Compliant</b>
	<b>Hazard Categories</b>			<b>Hazchem Code</b>	<b>Poison Schedule</b>	
Methanol	Acute: Yes	Chronic: Yes	Fire: Yes	2PE	S6	
1-(2-pyridylazo)-2-naphthol	Acute: Yes	Chronic: No	Fire: No	None allocated	None allocated	
<b>For product #4021 liquid mixture as a whole</b>	Acute: Yes	Chronic: Yes	Fire: Yes	2PE	S6	Yes

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**16. Other Information**

Do not use near heat or flame.

**Prepared By:** IP

**Revised:** 5/12/2005



# MSDS

P.O. Box 329 - 802 Washington Avenue Chestertown, MD 21620 - USA

## MATERIAL SAFETY DATA SHEET

TELEPHONE # FOR INFORMATION 410 778-3100

24 HOUR EMERGENCY NUMBER (CHEM-TEL): USA, Canada, Puerto Rico 800-255-3924;

Outside North American Continent 813-248-0585 (call Collect)

### 1. Product Identification

**Product Code:** 4022

**Product Description:** Stabilizing Reagent

**Manufactured By:** LaMotte Company

802 Washington Avenue

Chestertown, MD 21620

### 2. Composition/Information On Ingredients

Hazard	CAS#/Name	%	PEL	TLV
Yes	9036-19-5 Triton X-100 surfactant	0.5	N/E	N/E
No	7732-18-5 Water	to 100%		

### 3. Hazards Overview

**Primary Route Of Entry:**

N/A

#### HMIS Hazard

Scale: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Least

Health: 0      Flammability: 0      Reactivity: 0

**Carcinogenicity:** None:

**Other Health Related Comments:**

Non-hazardous, non-toxic



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**Product Code:** 4022

**Product Description:** Stabilizing Reagent

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#### **4. First Aid Measures**

**Eye Contact:** Flush with water.

**Skin Contact:** Flush with water.

**Ingestion:** Drink water.

**Inhalation:** N/A

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#### **5. Fire Fighting Measures**

**Flash Point (Method Used):** N/A

**LEL:** N/A

**UEL:** N/A

**Extinguishing Media:** Not a fire hazard

**Special Fire Fighting Procedures:** N/A

**Unusual Fire & Explosion Hazard:** N/A

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#### **6. Accidental Release Measures**

Mop up and flush down drain.

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#### **7. Handling & Storage**

Store in cool, dry, storage area away from incompatible materials.

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## **8. Exposure Controls/Personal Protection**

### **Ventilation**

Normal

### **Protection When Handling**

N/A

Work/Hygenic Practices: N/A

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## **9. Physical & Chemical Properties**

**Appearance:** Colorless Liquid

**Solubility In Water:** Soluble

**Odor:** None

**pH:** 6

**Vapor Density:** <1 (Air=1)

**Vapor Pressure:** <17 @ 20 deg C

**Boiling Point:** ca. 100 degC

**Melting Point:** ca. 0 degC

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## **10. Stability & Reactivity**

**Stable:** Yes

**Conditions To Avoid:** N/A

**Incompatibility (Materials To Avoid):** N/A

**Hazardous Decomposition Products:** N/A

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## **11. Toxicological Information**

Non-toxic

**Target Organs:** N/A

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**Product Code:** 4022

**Product Description:** Stabilizing Reagent

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**12. Ecological Information**

Information Not Yet Available

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**13. Disposal Considerations**

Flush down drain. Dispose according to federal, state and local regulations.

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**14. Transportation Information**

Not Regulated For Transport

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**15. Regulatory Information**

**Chemical Inventory Status**

Hazard	Ingredient	USA	Europe	--- Canada ---		Australia	Japan
		TSCA	EC	DSL	NDSL		
Yes	9036-19-5 Triton X-100 Surfactant (octylphenoxypolyethoxy ethanol)	Yes	Yes	Yes	No	Yes	Yes
No	7732-18-5 Distilled Water	Yes	Yes	Yes	No	Yes	Yes

**Federal, State, & International Regulations**

Ingredient	--- SARA 302 ---		----- SARA 313 -----		CERCLA	RCRA 261.33	TSCA 8(D)
	RQ	TPQ	Listed	Chemical Category			
9036-19-5 Triton X-100 Surfactant (octylphenoxypolyethoxy ethanol)	No	No	No	No	No	No	Yes
7732-18-5 Distilled Water	No	No	No	No	No	No	No

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**Product Code:** 4022

**Product Description:** Stabilizing Reagent

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--- SARA 311/312 ---

**Hazard Categories**

----- Australia -----

**Hazchem  
Code**

**Poison  
Schedule**

**This MSDS Is  
WHMIS Compliant**

**Ingredient**    **Acute**    **Chronic**    **Fire**    **Pressure**    **Reactivity**

9036-19-5    Yes    Yes    No    No    No  
Triton X-100 Surfactant (octylphenoxypolyethoxy ethanol)

None Allocated    None Allocated

7732-18-5    No    No    No    No    No  
Distilled Water

None Allocated    None Allocated

**product**    No    No    No    No    No  
**4022**  
**as a whole**

None Allocated    None Allocated    Yes

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**16. Other Information**

**Prepared By:** IP, Regulatory Affairs Department

**Revised:** 4/13/2006

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