



Be Right™

# SAFETY DATA SHEET

Issue Date 08-Apr-2016

Revision Date 08-Apr-2016

Version 3

Page 1 / 19

## 1. IDENTIFICATION

### Product identifier

**Product Name** Reagent 1 Ammonia/Monochloramine Indicator Solutio

### Other means of identification

**Product Code(s)** 2776353

**Safety data sheet number** M01711

**UN/ID no** UN1987

**HMRIC #** -

### Recommended use of the chemical and restrictions on use

**Recommended Use** Determination of monochloramine and ammonia.

**Uses advised against** None.

**Restrictions on use** None.

### Details of the supplier of the safety data sheet

#### Manufacturer Address

Hach Company  
P.O.Box 389 Loveland, CO 80539 USA  
(970) 669-3050

#### Emergency telephone number

(303) 623-5716 - 24 Hour Service (515)232-2533 - 8am - 4pm CST

#### Product Information

**Chemical Name** Not applicable

**Formula** Not applicable

**CAS No** Not applicable

**Alternate CAS Number** Not applicable

**NIOSH (RTECS) Number** None reported

## 2. HAZARDS IDENTIFICATION

### Classification

#### Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 3
Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3

#### Hazards not otherwise classified (HNOC)

Not applicable

#### Label elements

**Signal word** - Warning

**Product Code(s)** 2776353

**Issue Date** 08-Apr-2016

**Version** 3

**Product Name** Reagent 1 Ammonia/Monochloramine Indicator  
Solutio

**Revision Date** 08-Apr-2016

**Page** 2 / 19



**Hazard statements**

H226 - Flammable liquid and vapor

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

**Precautionary statements**

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P271 - Use only outdoors or in a well-ventilated area

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P233 - Keep container tightly closed

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment

P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge

P235 - Keep cool

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P312 - Call a POISON CENTER or doctor/physician if you feel unwell

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P405 - Store locked up

P501 - Dispose of contents/ container to an approved waste disposal plant

**Other Information**

Causes mild skin irritation

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Not applicable

**Mixture**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Product Code(s) 2776353

Issue Date 08-Apr-2016

Version 3

Product Name Reagent 1 Ammonia/Monochloramine Indicator  
Solutio

Revision Date 08-Apr-2016

Page 3 / 19

Chemical Name	CAS No	Weight-%	HMRIC #
Demineralized Water	7732-18-5	65.2782	-
Isopropanol	67-63-0	29.04	-
2-Hydroxybenzyl Alcohol	90-01-7	5.1653	-
Sodium Nitroprusside Dihydrate	14402-89-2	0.5165	-

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>General advice</b>	Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). If symptoms persist, call a physician. Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Call a POISON CENTER or doctor if you feel unwell. In the case of skin irritation or allergic reactions see a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If eye irritation persists: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Skin contact</b>	Wash off immediately with plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash hands thoroughly after handling.
<b>Inhalation</b>	Remove to fresh air. If symptoms persist, call a physician. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
<b>Ingestion</b>	Immediate medical attention is not required. Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. Use personal protective equipment as required.

##### Most important symptoms and effects, both acute and delayed

**Symptoms** See Section 11: TOXICOLOGICAL INFORMATION.

##### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically. Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

##### Suitable Extinguishing Media

Carbon dioxide. Alcohol foam. Dry chemical.

**Unsuitable extinguishing media** Caution: Use of water spray when fighting fire may be inefficient.

##### Flammable properties

**Product Code(s)** 2776353

**Issue Date** 08-Apr-2016

**Version** 3

**Product Name** Reagent 1 Ammonia/Monochloramine Indicator Solutio

**Revision Date** 08-Apr-2016

**Page** 4 / 19

Flammable; may be ignited by heat, sparks or flames. Flammable liquid. Classified as flammable according to GHS criteria. Flammable.

**Specific hazards arising from the chemical**

flammable liquid. Do not expose to sparks or other ignition sources. Flammable.

**Hazardous combustion products**

carbon monoxide, carbon dioxide.

**Protective equipment and precautions for firefighters**

Containers can build up pressure if exposed to heat.

**6. ACCIDENTAL RELEASE MEASURES**

**U.S. Notice**

Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

**EC Notice**

Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

**WHMIS Notice**

Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**

Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

**For emergency responders**

Use personal protection recommended in Section 8. Ventilate the area.

**Environmental precautions**

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for containment**

Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**

Pick up and transfer to properly labeled containers. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Soak up with inert absorbent material. Use only non-sparking tools. Ground and bond containers when transferring material. Take precautionary measures against static discharges. Use personal protective equipment as required.

**Emergency Response Guide Number**

127

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling**

Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and

explosion-proof equipment. All equipment used when handling the product must be grounded. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions**

Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Use spark-proof tools and explosion-proof equipment. Store locked up. Store in a well-ventilated place. Keep container tightly closed.

**Flammability class**

Class IC

**Incompatible materials**

Incompatible with:.. OXIDIZERS.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control parameters

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropanol (20 - 30%) CAS#: 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m <sup>3</sup> (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m <sup>3</sup> (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m <sup>3</sup>	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1225 mg/m <sup>3</sup>
Sodium Nitroprusside Dihydrate (0 - 10%) CAS#: 14402-89-2	TWA: 1 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup> (vacated) TWA: 5 mg/m <sup>3</sup> S*	IDLH: 25 mg/m <sup>3</sup> CN TWA: 1 mg/m <sup>3</sup> Fe

Chemical Name	Alberta OEL	British Columbia OEL	Manitoba OEL	New Brunswick OEL	New Foundland & Labrador OEL
Isopropanol (20 - 30%) CAS#: 67-63-0	TWA: 200 ppm TWA: 492 mg/m <sup>3</sup> STEL: 400 ppm STEL: 984 mg/m <sup>3</sup>	TWA: 200 ppm STEL: 400 ppm	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm TWA: 983 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1230 mg/m <sup>3</sup>	TWA: 200 ppm STEL: 400 ppm
Sodium Nitroprusside Dihydrate (0 - 10%) CAS#: 14402-89-2	TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	NDF	TWA: 1 mg/m <sup>3</sup>

Chemical Name	Northwest Territories OEL	Nova Scotia OEL	Nunavut OEL	Ontario TWA	Prince Edward Island OEL
Isopropanol (20 - 30%) CAS#: 67-63-0	TWA: 400 ppm TWA: 983 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1228 mg/m <sup>3</sup>	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 983 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1228 mg/m <sup>3</sup>	TWA: 200 ppm STEL: 400 ppm	STEL: 400 ppm TWA: 200 ppm
Sodium Nitroprusside Dihydrate (0 - 10%) CAS#: 14402-89-2	NDF	NDF	NDF	TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>

Chemical Name	Quebec OEL	Saskatchewan OEL	Yukon OEL
Isopropanol	TWA: 400 ppm	TWA: 200 ppm	STEL: 500 ppm

Product Code(s) 2776353

Issue Date 08-Apr-2016

Version 3

Product Name Reagent 1 Ammonia/Monochloramine Indicator Solutio

Revision Date 08-Apr-2016

Page 6 / 19

(20 - 30%) CAS#: 67-63-0	TWA: 985 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1230 mg/m <sup>3</sup>	STEL: 400 ppm	STEL: 1225 mg/m <sup>3</sup> TWA: 400 ppm TWA: 980 mg/m <sup>3</sup>
Sodium Nitroprusside Dihydrate (0 - 10%) CAS#: 14402-89-2	TWA: 1.0 mg/m <sup>3</sup> Ceiling: 10 ppm Ceiling: 11 mg/m <sup>3</sup> Skin	NDF	NDF

**Other Information**

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Appropriate engineering controls**

**Engineering Controls**

Eyewash stations. Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Tight sealing safety goggles. Face protection shield. Goggles. Avoid contact with eyes.

**Skin and body protection**

Wear protective gloves and protective clothing.

**Respiratory protection**

Ensure adequate ventilation, especially in confined areas. Do not breathe gas/fumes/vapor/spray.

**General Hygiene Considerations**

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Wash face, hands and any exposed skin thoroughly after handling. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Avoid breathing (dust, vapor, mist, gas). Use personal protective equipment as required. Wear suitable gloves and eye/face protection. Wash hands thoroughly after handling.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Physical state**

Liquid

**Gas Under Pressure**

Not classified according to GHS criteria

**Appearance**

aqueous solution

**Color**

brown

**Odor**

Alcoholic

**Odor threshold**

No data available

**Property**

**Values**

**Remarks • Method**

**Molecular weight**

No data available

**pH**

7.4

**Melting point/freezing point**

~ -5 °C / 23 °F

Estimation based on theoretical calculation

**Boiling point / boiling range**

82 °C / 180 °F

**Evaporation rate**

1.06 (water = 1)

Estimation based on theoretical calculation

**Vapor pressure**

20.777 mm Hg / 2.77 kPa at 25 °C / 77 °F

Estimation based on theoretical calculation

Product Code(s) 2776353

Issue Date 08-Apr-2016

Version 3

Product Name Reagent 1 Ammonia/Monochloramine Indicator  
Solutio

Revision Date 08-Apr-2016

Page 7 / 19

Vapor density (air = 1) 0.79 (air = 1)  
Specific gravity (water = 1 / air = 1) 0.968  
Partition Coefficient (n-octanol/water) Not applicable  
Soil Organic Carbon-Water Partition Coefficient Not applicable  
Autoignition temperature No data available  
Decomposition temperature No data available  
Dynamic viscosity No data available  
Kinematic viscosity No data available

### Solubility(ies)

#### Water solubility

<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water Solubility Temperature</u>
Soluble	> 1000 mg/L	25 °C / 77 °F

#### Solubility in other solvents

<u>Chemical Name</u>	<u>Solubility classification</u>	<u>Solubility</u>	<u>Solubility Temperature</u>
Ethanol	Soluble	> 1000 mg/L	25 °C / 77 °F

### Other Information

Metal Corrosivity Not classified as corrosive to metal according to GHS criteria

Steel Corrosion Rate No data available

Aluminum Corrosion Rate No data available

Volitale Organic Compounds (VOC) Content See ingredients information below.

<u>Chemical Name</u>	<u>Volatile organic compounds (VOC) content</u>
Isopropanol (20 - 30%) CAS#: 67-63-0	~ 100%

Bulk density Not applicable

Explosive properties Not classified according to GHS criteria.

Explosion data May be combustible at high temperature.

Upper explosion limit No data available

Lower explosion limit No data available

Flammable properties Flammable; may be ignited by heat, sparks or flames. Flammable liquid. Classified as flammable according to GHS criteria. Flammable.

GHS Flammability Classification Liquid - Category 3, H226

Flammability Limit in Air

**Product Code(s)** 2776353

**Issue Date** 08-Apr-2016

**Version** 3

**Product Name** Reagent 1 Ammonia/Monochloramine Indicator  
Solutio

**Revision Date** 08-Apr-2016

**Page** 8 / 19

**Upper flammability limit:**

No data available

**Lower flammability limit:**

No data available

**Flash point**

30 °C / 86 °F

**Method**

CC (closed cup)

**Oxidizing properties**

Not classified according to GHS criteria.

**Reactivity properties**

Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

## 10. STABILITY AND REACTIVITY

### **Chemical stability**

Stable under recommended storage conditions.

### **Special dangers of the product**

None reported

### **Possibility of Hazardous Reactions**

None under normal processing.

#### **Hazardous polymerization**

Hazardous polymerization does not occur.

### **Conditions to avoid**

Heat, flames and sparks. Contact with heat, sparks, open flames or other ignition sources. Take precautionary measures against static discharges. Poor Ventilation.

### **Incompatible materials**

Incompatible with:.. OXIDIZERS.

### **Hazardous Decomposition Products**

Heating to decomposition releases toxic fumes of carbon monoxide and carbon dioxide.

### **Explosive properties**

Not classified according to GHS criteria. May be combustible at high temperature.

**Upper explosion limit**

No data available

**Lower explosion limit**

No data available

### **Autoignition temperature**

No data available

### **Sensitivity to Static Discharge**

None reported

### **Sensitivity to Mechanical Impact**

None reported

## 11. TOXICOLOGICAL INFORMATION

### **Information on Likely Routes of Exposure**

**Product Information**

Causes serious eye irritation. Vapors may cause drowsiness and dizziness. May cause respiratory irritation. May cause

Product Code(s) 2776353

Issue Date 08-Apr-2016

Version 3

Product Name Reagent 1 Ammonia/Monochloramine Indicator Solutio

Revision Date 08-Apr-2016

Page 9 / 19

	drowsiness or dizziness. Causes mild skin irritation.
<b>Inhalation</b>	Avoid breathing dust/fume/gas/mist/vapors/spray.
<b>Eye contact</b>	Avoid contact with eyes. Wash thoroughly after handling. Severely irritating to eyes.
<b>Skin contact</b>	Wash thoroughly after handling. Causes mild skin irritation. Avoid contact with skin and clothing.
<b>Ingestion</b>	No known effect based on information supplied.
<b>Aggravated Medical Conditions</b>	Preexisting eye disorders. Skin disorders. Respiratory disorders.
<b>Toxicologically synergistic products</b>	None known.
<b>Toxicokinetics, metabolism and distribution</b>	See ingredients information below.

Chemical Name	Toxicokinetics, metabolism and distribution
Isopropanol (20 - 30%) CAS#: 67-63-0	Isopropanol is rapidly absorbed across the gastric mucosa and reaches a peak concentration approximately 30-120 minutes after ingestion. Isopropanol is primarily metabolized via alcohol dehydrogenase to acetone.

### Acute Toxicity Information

**Acute toxicity** Based on the classification principles the classification criteria are not met.

**STOT - single exposure** May cause respiratory irritation. and/or. May cause drowsiness or dizziness.

**Aspiration hazard** Based on the classification principles the classification criteria are not met.

### Product Acute Toxicity Data

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Other Exposure Routes** No data available

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral)** 8,785.00 mg/kg

### Ingredient Acute Toxicity Data

#### Oral Exposure Route

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropanol (20 - 30%) CAS#: 67-63-0	Rat LD <sub>50</sub>	4710 mg/kg	None reported	None reported	OECD (Organization for Economic Co-operation and Development)
Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropanol (20 - 30%) CAS#: 67-63-0	Human TD <sub>Lo</sub>	223 mg/kg	None reported	<b>Vascular</b>	RTECS (Registry of Toxic Effects of Chemical Substances)

#### Dermal Exposure Route

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropanol	Rat	12800 mg/kg	None	None reported	RTECS (Registry of Toxic

Product Code(s) 2776353

Product Name Reagent 1 Ammonia/Monochloramine Indicator Solutio

Issue Date 08-Apr-2016

Revision Date 08-Apr-2016

Version 3

Page 10 / 19

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
(20 - 30%) CAS#: 67-63-0	LD <sub>50</sub>		reported		Effects of Chemical Substances)
Isopropanol (20 - 30%) CAS#: 67-63-0	Rabbit LD <sub>50</sub>	12870 mg/kg	None reported	None reported	No information available

**Inhalation (Dust/Mist) Exposure Route**

Toxicological data for ingredients is not indicative of likely harm.

**Inhalation (Vapor) Exposure Route**

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropanol (20 - 30%) CAS#: 67-63-0	Human TC <sub>Lo</sub>	35 mg/L	4 hours	Lungs, Thorax, or Respiration Other changes	RTECS (Registry of Toxic Effects of Chemical Substances)
Isopropanol (20 - 30%) CAS#: 67-63-0	Human TC <sub>Lo</sub>	150 mg/L	2 hours	Biochemical Enzyme inhibition, induction, or change in blood or tissue levels	RTECS (Registry of Toxic Effects of Chemical Substances)

**Inhalation (Gas) Exposure Route**

No data available

**Other Exposure Routes**

No data available

**Skin corrosion/irritation**

Causes mild skin irritation.

**Product Skin Corrosion/Irritation Data**

No data available.

**Ingredient Skin Corrosion/Irritation Data**

Chemical Name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Isopropanol (20 - 30%) CAS#: 67-63-0	Standard Draize Test	Rabbit	500 mg	None reported	Mild skin irritant	RTECS (Registry of Toxic Effects of Chemical Substances)

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Product Serious Eye Damage/Eye Irritation Data**

No data available.

**Ingredient Eye Damage/Eye Irritation Data**

Chemical Name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Isopropanol (20 - 30%) CAS#: 67-63-0	Standard Draize Test	Rabbit	100 mg	None reported	Corrosive to eyes	RTECS (Registry of Toxic Effects of Chemical Substances)

**Product Code(s)** 2776353

**Issue Date** 08-Apr-2016

**Version** 3

**Product Name** Reagent 1 Ammonia/Monochloramine Indicator Solutio

**Revision Date** 08-Apr-2016

**Page** 11 / 19

### Sensitization Information

**Sensitization** Based on the classification principles the classification criteria are not met.

#### Product Sensitization Data

**Skin Sensitization Exposure Route** No data available.

**Respiratory Sensitization Exposure Route** No data available.

#### Ingredient Sensitization Data

**Skin Sensitization Exposure Route** Toxicological data for ingredients is not indicative of likely harm.

**Respiratory Sensitization Exposure Route** No data available.

### Chronic Toxicity Information

**Chronic toxicity** Avoid repeated exposure.

**STOT - repeated exposure** Based on the classification principles the classification criteria are not met.

#### Product Repeat Dose Toxicity Data

**Oral Exposure Route** No data available.

**Dermal Exposure Route** No data available.

**Inhalation (Dust/Mist) Exposure Route** No data available.

**Inhalation (Vapor) Exposure Route** No data available.

**Inhalation (Gas) Exposure Route** No data available.

**Other Exposure Routes** No data available.

#### Ingredient Repeat Dose Toxicity Data

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Other Exposure Routes** No data available

### Carcinogenicity

Based on the classification principles the classification criteria are not met.

<b>Chemical Name</b>	<b>ACGIH</b>	<b>IARC</b>	<b>NTP</b>	<b>OSHA</b>
Isopropanol 67-63-0	-	Group 3	-	X

### Legend

<b>ACGIH (American Conference of Governmental Industrial Hygienists)</b>	Does not apply
--	----------------

Product Code(s) 2776353

Issue Date 08-Apr-2016

Version 3

Product Name Reagent 1 Ammonia/Monochloramine Indicator Solutio

Revision Date 08-Apr-2016

Page 12 / 19

IARC (International Agency for Research on Cancer)	Not classifiable as a human carcinogen
NTP (National Toxicology Program)	Does not apply
OSHA (Occupational Safety and Health Administration of the US Department of Labor)	X - Present

**Product Carcinogenicity Data** No data available

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Other Exposure Routes** No data available

**Ingredient Carcinogenicity Data**

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Other Exposure Routes** No data available

**Germ cell mutagenicity**

Based on the classification principles the classification criteria are not met.

**Product Germ Cell Mutagenicity *invitro* Data**

No data available.

**Ingredient Germ Cell Mutagenicity *invitro* Data** No data available

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Other Exposure Routes** No data available

**Ingredient Germ Cell Mutagenicity *invivo* Data**

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

Product Code(s) 2776353

Issue Date 08-Apr-2016

Version 3

Product Name Reagent 1 Ammonia/Monochloramine Indicator Solutio

Revision Date 08-Apr-2016

Page 13 / 19

**Inhalation (Dust/Mist) Exposure Route**

Toxicological data for ingredients is not indicative of likely harm.

**Inhalation (Vapor) Exposure Route**

No data available

**Inhalation (Gas) Exposure Route**

No data available

**Other Exposure Routes**

No data available

**Reproductive toxicity**

Based on the classification principles the classification criteria are not met.

**Oral Exposure Route**

No data available

**Dermal Exposure Route**

No data available

**Inhalation (Dust/Mist) Exposure Route**

No data available

**Inhalation (Vapor) Exposure Route**

No data available

**Inhalation (Gas) Exposure Route**

No data available

**Other Exposure Routes**

No data available

**Ingredient Reproductive Toxicity Data**

**Oral Exposure Route**

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropanol (20 - 30%) CAS#: 67-63-0	Rat TD <sub>Lo</sub>	32.4 mg/kg	None reported	<b>Effects on Embryo or Fetus</b> Fetal death	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropanol (20 - 30%) CAS#: 67-63-0	Rat TD <sub>Lo</sub>	3500 mg/kg	None reported	<b>Effects on Fertility</b> Mating performance (e.g. # sperm positive females per # females mated; # copulations per # estrus cycles)	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropanol (20 - 30%) CAS#: 67-63-0	Rat TD <sub>Lo</sub>	8000 mg/kg	9 days	<b>Effects on Embryo or Fetus</b> Fetotoxicity (except death e.g. stunted fetus)	RTECS (Registry of Toxic Effects of Chemical Substances)

**Dermal Exposure Route**

No data available

**Inhalation (Dust/Mist) Exposure Route**

No data available

**Inhalation (Vapor) Exposure Route**

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropanol (20 - 30%) CAS#: 67-63-0	Rat TC <sub>Lo</sub>	7000 mg/L	19 days	<b>Specific Developmental Abnormalities</b> Musculoskeletal system	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropanol (20 - 30%) CAS#: 67-63-0	Rat TC <sub>Lo</sub>	10000 mg/L	19 days	<b>Effects on Embryo or Fetus</b> Fetal death <b>Effects on Fertility</b>	RTECS (Registry of Toxic Effects of Chemical Substances)

Product Code(s) 2776353

Issue Date 08-Apr-2016

Version 3

Product Name Reagent 1 Ammonia/Monochloramine Indicator Solutio

Revision Date 08-Apr-2016

Page 14 / 19

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropanol (20 - 30%) CAS#: 67-63-0	Rat TC <sub>Lo</sub>	3500 mg/L	19 days	Post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants) Pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea) <b>Effects on Embryo or Fetus</b> Fetotoxicity (except death e.g. stunted fetus)	RTECS (Registry of Toxic Effects of Chemical Substances)

Inhalation (Gas) Exposure Route

No data available

Other Exposure Routes

No data available

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Based on the classification principles, not classified as hazardous to the environment.

### Product Ecological Data

#### **Aquatic toxicity**

**Fish**

No data available

**Crustacea**

No data available

**Algae**

No data available

**Other Aquatic Species**

No data available

#### **Terrestrial toxicity**

**Soil**

No data available

**Vertebrates**

No data available

**Invertebrates**

No data available

### Ingredient Ecological Data

#### **Aquatic toxicity**

**Fish**

Toxicological data for ingredients is not indicative of likely harm.

**Crustacea**

Toxicological data for ingredients is not indicative of likely harm.

**Algae**

Toxicological data for ingredients is not indicative of likely harm.

**Other Aquatic Species**

No data available

#### **Terrestrial toxicity**

**Soil**

No data available

**Vertebrates**

No data available

**Invertebrates**

No data available

**Product Code(s)** 2776353

**Issue Date** 08-Apr-2016

**Version** 3

**Product Name** Reagent 1 Ammonia/Monochloramine Indicator Solutio

**Revision Date** 08-Apr-2016

**Page** 15 / 19

**Other Information**

<b>Canadian Environmental Protection Act (CEPA) - Domestic Substances List (DSL): Environmentally Hazardous Substances Categorizations</b>				
<b>Chemical Name</b>	<b>Category</b>	<b>Persistent</b>	<b>Bioaccumulation</b>	<b>Inherently Toxic to Aquatic Organisms</b>
Sodium Nitroprusside Dihydrate (0 - 10%) CAS#: 14402-89-2	Inorganics	Yes	No	Yes

**Persistence and degradability**

None known.

**Product Biodegradability Data**

If available, see ingredient data below.

**Ingredient Biodegradability Data**

Test data reported below

<b>Chemical Name</b>	<b>Test method</b>	<b>Biodegradation</b>	<b>Exposure time</b>	<b>Results</b>
Isopropanol (20 - 30%) CAS#: 67-63-0	None reported	95%	21 days	Readily biodegradable

**Bioaccumulation**

If available, see ingredient data below.

**Product Bioaccumulation Data**

Test data reported below.

**Ingredient Bioaccumulation Data**

No data available

**Additional information**

**Product Information**

**Partition Coefficient (n-octanol/water)**

Not applicable

**Ingredient Information**

**Mobility**

Mobility in soil: High mobility. If available, see ingredient data below.

**Product Information**

**Soil Organic Carbon-Water Partition Coefficient**

Not applicable

**Ingredient Information**

**Additional information**

**Water solubility**

Product Code(s) 2776353

Product Name Reagent 1 Ammonia/Monochloramine Indicator Solutio

Issue Date 08-Apr-2016

Revision Date 08-Apr-2016

Version 3

Page 16 / 19

Product Information

<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water Solubility Temperature</u>
Soluble	> 1000 mg/L	25 °C / 77 °F

Ingredient Information

<u>Chemical Name</u>	<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water solubility temperature °C</u>	<u>Water solubility temperature °F</u>
Isopropanol (20 - 30%) CAS#: 67-63-0	Soluble	> 1000 mg/L	25 °C	77 °F
2-Hydroxybenzyl Alcohol (0 - 10%) CAS#: 90-01-7	Slightly soluble	> 0.1 mg/L	25 °C	77 °F
Sodium Nitroprusside Dihydrate (0 - 10%) CAS#: 14402-89-2	Soluble	> 1000 mg/L	25 °C	77 °F

Other adverse effects

No information available.

<u>Chemical Name</u>	<u>EU - Endocrine Disrupters Candidate List</u>	<u>EU - Endocrine Disrupters - Evaluated Substances</u>	<u>Endocrine disrupting potential</u>
Sodium Nitroprusside Dihydrate (0 - 10%) CAS#: 14402-89-2	Group III Chemical	-	-

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Working in a well-ventilated area,. Rinse three times with an appropriate solvent. Collect rinsate and dispose of according to local, state or federal regulations. Dispose of empty container as normal trash. In the US, rinsate from empty containers is classified as hazardous waste and should be disposed of at an E.P. A. approved facility. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste in countries other than the US. Improper disposal or reuse of this container may be dangerous and illegal. Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

D001

<u>Chemical Name</u>	<u>RCRA</u>	<u>RCRA - Basis for Listing</u>	<u>RCRA - D Series Wastes</u>	<u>RCRA - U Series Wastes</u>
2-Hydroxybenzyl Alcohol 90-01-7	-	Included in waste stream: K060	-	-

Special instructions for disposal

Incinerate material at an E.P.A. approved hazardous waste facility.

14. TRANSPORT INFORMATION

DOT

Product Code(s) 2776353

Issue Date 08-Apr-2016

Version 3

Product Name Reagent 1 Ammonia/Monochloramine Indicator  
Solutio

Revision Date 08-Apr-2016

Page 17 / 19

UN/ID no UN1987  
Proper shipping name Alcohol, N.O.S.  
DOT Technical Name (Isopropyl Alcohol Solution)  
Hazard Class 3  
Packing Group III  
Emergency Response Guide Number 127

**TDG**

UN/ID no UN1987  
Proper shipping name Alcohol, N.O.S.  
Hazard Class 3  
Packing Group III

**IATA**

UN/ID no UN1987  
Proper shipping name Alcohol, N.O.S.  
Hazard Class 3  
Packing Group III  
ERG Code 127

**IMDG**

UN/ID no UN1987  
Proper shipping name Alcohol, N.O.S.  
Hazard Class 3  
Packing Group III

**Note:** No special precautions necessary.

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA Complies  
DSL/NDSL Complies  
EINECS/ELINCS Complies  
ENCS Does not comply  
IECSC Complies  
KECL Does not comply  
PICCS Complies  
AICS Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
ENCS - Japan Existing and New Chemical Substances  
IECSC - China Inventory of Existing Chemical Substances  
KECL - Korean Existing and Evaluated Chemical Substances  
PICCS - Philippines Inventory of Chemicals and Chemical Substances  
AICS - Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Isopropanol (CAS #: 67-63-0)	1.0

**SARA 311/312 Hazard Categories**

Acute health hazard Yes

Product Code(s) 2776353

Product Name Reagent 1 Ammonia/Monochloramine Indicator Solutio

Issue Date 08-Apr-2016

Revision Date 08-Apr-2016

Version 3

Page 18 / 19

Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium Nitroprusside Dihydrate 14402-89-2	-	X	X	-

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Isopropanol 67-63-0	X	X	X
Sodium Nitroprusside Dihydrate 14402-89-2	X	-	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

**NFPA and HMIS Classifications**

NFPA	Health hazards - 2	Flammability - 3	Instability - 0	Physical and Chemical Properties -
HMIS	Health hazards - 1	Flammability - 3	Physical hazards - 0	Personal protection - X - See section 8 for more information

**Key or legend to abbreviations and acronyms used in the safety data sheet**

- \* = Chronic Health Hazard
- NIOSH IDLH Immediately Dangerous to Life or Health
- NDF no data
- TWA (time-weighted average)
- STEL (Short Term Exposure Limit)

**Product Code(s)** 2776353

**Issue Date** 08-Apr-2016

**Version** 3

**Product Name** Reagent 1 Ammonia/Monochloramine Indicator  
Solutio

**Revision Date** 08-Apr-2016

**Page** 19 / 19

*Ceiling - Maximum limit value*

*Vacated - These values have no official status. The only enforceable contaminant levels are those listed as OSHA Final PELs. These lists are provided as reference only. Please note that some state regulations reference these "vacated" exposure limits in their state regulations.*

**Prepared By** Hach Product Compliance Department

**Issue Date** 08-Apr-2016

**Revision Date** 08-Apr-2016

**Revision Note** New SDS

**Disclaimer**

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

**HACH COMPANY ©2015**

**End of Safety Data Sheet**