



**Be Right™**

# SAFETY DATA SHEET

Issue Date 07-Jun-2016

Revision Date 05-Feb-2018

Version 3.1

## Section 1: Identification: Product identifier and chemical identity

### Product identifier

**Product Name** Nessler Reagent  
**Product Code(s)** 2119432-AU

### Other means of identification

**Safety data sheet number** M00503

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

**Recommended Use** Laboratory reagent. Determination of ammonium nitrogen.

**Uses advised against** No information available

### Details of manufacturer or importer

#### **Manufacturer**

Hach Company P.O. Box 389 Loveland, CO 80539 USA +1(970) 669-3050

#### **Supplier**

HACH Pacific 26 Brindley Street Dandenong South, 3175 AU Tel: 1300 887 735

### Emergency telephone number

13 11 26

## Section 2: Hazard(s) identification

### GHS Classification

<b>Corrosive to metals</b>	Category 1 - (H290)
<b>Acute toxicity - Oral</b>	Category 3 - (H301)
<b>Acute toxicity - Dermal</b>	Category 2 - (H310)
<b>Acute toxicity - Inhalation (Dusts/Mists)</b>	Category 3 - (H331)
<b>Skin corrosion/irritation</b>	Category 1 - (H314)
<b>Serious eye damage/eye irritation</b>	Category 1 - (H318)
<b>Skin sensitization</b>	
<b>Specific target organ toxicity (repeated exposure)</b>	Category 2 - (H373)
<b>Acute aquatic toxicity</b>	Category 1 - (H400)
<b>Chronic aquatic toxicity</b>	Category 1 - (H410)

### Label elements

Corrosion  
Skull and crossbones  
Health hazard  
Corrosion  
Environment



**Signal word** - Danger

**Hazard statements**

H290 - May be corrosive to metals

H301 - Toxic if swallowed

H310 - Fatal in contact with skin

H314 - Causes severe skin burns and eye damage

H331 - Toxic if inhaled

H373 - May cause damage to organs through prolonged or repeated exposure

H410 - Very toxic to aquatic life with long lasting effects

**EU Specific Hazard Statements**

Not applicable

**Precautionary statements**

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P262 - Do not get in eyes, on skin, or on clothing

P270 - Do not eat, drink or smoke when using this product

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

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

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

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

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

P363 - Wash contaminated clothing before reuse

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

P405 - Store locked up

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

P310 - Immediately call a POISON CENTER or doctor/physician

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P273 - Avoid release to the environment

P391 - Collect spillage

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

P234 - Keep only in original container

P390 - Absorb spillage to prevent material damage

**Other hazards**

No information available

**Section 3: Composition and information on ingredients, in accordance with Schedule 8**

**Substance**

Not applicable

**Mixture**

Chemical name	Formula	CAS No.	EC No.	Percent Range
Sodium hydroxide	NaOH	1310-73-2	215-185-5	10 - 20%
Mercuric iodide	HgI <sub>2</sub>	7774-29-0	231-873-8	5 - 10%
Sodium iodide	NaI	7681-82-5	231-679-3	3 - 7%

## Section 4: FIRST AID MEASURES

### Emergency telephone number

Poisons Information Center, Australia: 13 11 26  
Poisons Information Center, New Zealand: 0800 764 766

### Description of necessary first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>Inhalation</b>	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention. Immediate medical attention is required.
<b>Skin contact</b>	Get immediate medical advice/attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical advice/attention.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical advice/attention.

### For emergency responders

**Self-protection of the first aider** Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not breathe vapor or mist. Use personal protective equipment as required. See section 8 for more information.

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

**Symptoms** Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

### Indication of immediate medical attention and special treatment needed, if necessary

**Note to physicians** pressure may occur with moist rales, frothy sputum, and high pulse pressure.

## Section 5: Firefighting measures

### Suitable Extinguishing Media

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** No information available

### Specific hazards arising from the chemical

**Specific hazards arising from the chemical** The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.

### Flammable properties

During a fire, irritating and highly toxic gases may be generated by thermal decomposition.

### Explosive properties

Not classified according to GHS criteria.

**Hazardous combustion products** Mercury. Sodium oxides. Iodine compounds.

**Specific/special fire-fighting measures**

**Specific/special fire-fighting measures** No information available.

**Special protective equipment and precautions for fire-fighters**

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## Section 6: ACCIDENTAL RELEASE MEASURES

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

**Personal precautions** Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Attention! Corrosive material. Keep people away from and upwind of spill/leak. Do not breathe vapor or mist.

**Other Information** Use personal protective equipment as required. Refer to protective measures listed in Sections 7 and 8.

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions**

Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal. Cover powder spill with plastic sheet or tarp to minimize spreading.

**Methods for cleaning up** Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.

**Precautions to prevent secondary hazards**

Clean contaminated objects and areas thoroughly observing environmental regulations. See section 8 for more information. See section 13 for more information.

## Section 7: Handling and storage, including how the chemical may be safely used

**Preventive measures for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Do not breathe vapor or mist.

**Precautions for safe handling**

**General Hygiene Considerations** Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the

workplace. Do not breathe vapor or mist.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

**Incompatible materials** Oxidizing agent. Acids. Bases.

## Section 8: Exposure controls and personal protection

**Control parameters**

**Exposure Limits**

Chemical name	Australia
Sodium hydroxide (10 - 20%) CAS#: 1310-73-2	2 mg/m <sup>3</sup> Peak
Mercuric iodide (5 - 10%) CAS#: 7774-29-0	TWA: 0.003 ppm TWA: 0.025 mg/m <sup>3</sup>

**Legend** See section 16 for terms and abbreviations

**Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems.

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

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Hand Protection** Wear suitable gloves. Impervious gloves.

**Eye/face protection** Face protection shield.

**Skin and body protection** Impervious clothing. Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

**General Hygiene Considerations** Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Do not breathe vapor or mist.

**Environmental exposure controls** Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

**Thermal hazards** None under normal processing.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Appearance</b>	aqueous solution
<b>Odor</b>	Not determined
<b>Color</b>	yellow
<b>Odor threshold</b>	No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Molecular weight</b>	No data available	
<b>pH</b>	12.1	
<b>Melting point/freezing point</b>	~ -21 °C / -6 °F	Estimation based on theoretical calculation
<b>Boiling point / boiling range</b>	110 °C / 230 °F	
<b>Evaporation rate</b>	1.07 (water = 1)	Estimation based on theoretical calculation
<b>Vapor pressure</b>	21.602 mm Hg / 2.88 kPa at 25 °C / 77 °F	Estimation based on theoretical calculation
<b>Vapor density (air = 1)</b>	No data available 0.62 (air = 1)	
<b>Specific gravity (water = 1 / air = 1)</b>	1.265	
<b>Partition Coefficient (n-octanol/water)</b>	Not applicable	
<b>Soil Organic Carbon-Water Partition Coefficient</b>	Not applicable	
<b>Autoignition temperature</b>	No data available	
<b>Decomposition temperature</b>	110 °C / 230 °F	
<b>Dynamic viscosity</b>	No data available	
<b>Kinematic viscosity</b>	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>
None reported	No information available	No data available	No information available

**Other Information****Metal Corrosivity**

Classified as corrosive to metal according to GHS criteria

**Steel Corrosion Rate**

No data available

**Aluminum Corrosion Rate**

No data available

**Volatile Organic Compounds (VOC) Content**

<b>Chemical name</b>	<b>CAS No.</b>	<b>Volatile organic compounds (VOC) content</b>	<b>CAA (Clean Air Act)</b>
Sodium hydroxide	1310-73-2	No data available	-
Mercuric iodide	7774-29-0	No data available	-

Chemical name	CAS No.	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Sodium iodide	7681-82-5	No data available	-

**Explosive properties**

Upper explosion limit No data available  
 Lower explosion limit No data available

**Flammable properties**

Flash point No data available  
 Method No information available

**Flammability Limit in Air**

Upper flammability limit: No data available  
 Lower flammability limit: No data available

**Oxidizing properties**

No data available.

**Bulk density**

Not applicable

**Particle Size**

No information available

**Particle Size Distribution**

No information available

## Section 10: STABILITY AND REACTIVITY

**Reactivity**

Not applicable.

**Chemical stability**

**Stability** Stable under normal conditions.

**Explosion data**

Sensitivity to Mechanical Impact None  
 Sensitivity to Static Discharge None.

**Possibility of Hazardous Reactions**

**Possibility of Hazardous Reactions** None under normal processing.

**Hazardous polymerization**

None under normal processing.

**Conditions to avoid**

**Conditions to avoid** Exposure to air or moisture over prolonged periods. Excessive heat.

**Incompatible materials**

**Incompatible materials** Oxidizing agent. Acids. Bases.

**Hazardous Decomposition Products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

## Section 11: TOXICOLOGICAL INFORMATION

**Information on Likely Routes of Exposure****Product Information**

**Inhalation** Corrosive by inhalation. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. Toxic by inhalation.

<b>Eye contact</b>	Causes burns. Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.
<b>Skin contact</b>	Fatal in contact with skin. May cause irritation.
<b>Ingestion</b>	Causes burns. Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.
<b>Symptoms</b>	Redness. Burning. May cause blindness. Coughing and/ or wheezing. Difficulty in breathing.
<b>Aggravated Medical Conditions</b>	Eye disorders. Skin disorders. Respiratory disorders. Preexisting eye disorders. Kidney disorders.
<b>Toxicologically synergistic products</b>	None known.
<b>Toxicokinetics, metabolism and distribution</b>	No information available.

**Product Acute Toxicity Data**

<b>Oral Exposure Route</b>	No data available
<b>Dermal Exposure Route</b>	No data available
<b>Inhalation (Dust/Mist) Exposure Route</b>	No data available
<b>Inhalation (Vapor) Exposure Route</b>	No data available
<b>Inhalation (Gas) Exposure Route</b>	No data available

**Unknown Acute Toxicity**

0 % of the mixture consists of ingredient(s) of unknown toxicity.

**Acute Toxicity Estimations (ATE)**

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

<b>ATEmix (oral)</b>	189.00 mg/kg
<b>ATEmix (dermal)</b>	53.00 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	0.53 mg/L
<b>ATEmix (inhalation-vapor)</b>	No information available
<b>ATEmix (inhalation-gas)</b>	No information available

**Ingredient Acute Toxicity Data**

<b>Oral Exposure Route</b>				If available, see data below	
Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Mercuric iodide (5 - 10%) CAS#: 7774-29-0	Rat LD <sub>50</sub>	18 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)
Sodium iodide (3 - 7%) CAS#: 7681-82-5	Rat LD <sub>50</sub>	4340 mg/kg	None reported	None reported	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
Sodium hydroxide (10 - 20%) CAS#: 1310-73-2	Rabbit LD <sub>50</sub>	500 mg/kg	None reported	None reported	No information available

<b>Dermal Exposure Route</b>				If available, see data below	
Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium hydroxide	Rabbit	1350 mg/kg	None	None reported	IUCLID (The International



(10 - 20%) CAS#: 1310-73-2	LD <sub>50</sub>		reported		Uniform Chemical Information Database)
Mercuric iodide (5 - 10%) CAS#: 7774-29-0	Rat LD <sub>50</sub>	75 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)

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

If available, see data below

**Inhalation (Vapor) Exposure Route**

If available, see data below

**Inhalation (Gas) Exposure Route**

If available, see data below

**Product Specific Target Organ Toxicity Single Exposure 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

**Ingredient Specific Target Organ Toxicity Single Exposure Data****Oral Exposure Route**

If available, see data below

**Dermal Exposure Route**

If available, see data below

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

If available, see data below

**Inhalation (Vapor) Exposure Route**

If available, see data below

**Inhalation (Gas) Exposure Route**

If available, see data below

**Aspiration toxicity**

No data available

**Product Skin Corrosion/Irritation Data**

No data available.

**Ingredient Skin Corrosion/Irritation Data**

If available, see data below

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium hydroxide (10 - 20%) CAS#: 1310-73-2	Patch test	Human	20 mg	24 hours	Corrosive to skin	RTECS (Registry of Toxic Effects of Chemical Substances)
Sodium iodide (3 - 7%) CAS#: 7681-82-5	Standard Draize Test	Rabbit	500 mg	24 hours	Skin irritant	RTECS (Registry of Toxic Effects of Chemical Substances)

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

No data available.

**Ingredient Eye Damage/Eye Irritation Data**

If available, see data below

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium hydroxide (10 - 20%) CAS#: 1310-73-2	Standard Draize Test	Rabbit	0.05 mg	24 hours	Corrosive to eyes	RTECS (Registry of Toxic Effects of Chemical Substances)
Sodium iodide (3 - 7%) CAS#: 7681-82-5	Standard Draize Test	Rabbit	100 mg	24 hours	Eye irritant	RTECS (Registry of Toxic Effects of Chemical Substances)

**Sensitization Information****Product Sensitization Data****Skin Sensitization Exposure Route**

No data available.

**Respiratory Sensitization Exposure Route**

No data available.

**Ingredient Sensitization Data****Skin Sensitization Exposure Route**

If available, see data below.

**Respiratory Sensitization Exposure Route**

If available, see data below.

**Chronic Toxicity Information****Product Specific Target Organ Toxicity Repeat Dose 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.

**Ingredient Specific Target Organ Toxicity Repeat Exposure Data****Oral Exposure Route**

If available, see data below

**Dermal Exposure Route**

If available, see data below

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

If available, see data below

**Inhalation (Vapor) Exposure Route**

If available, see data below

**Inhalation (Gas) Exposure Route**

If available, see data below

**Product 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

**Ingredient Carcinogenicity Data**

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Sodium hydroxide	1310-73-2	-	-	-	-
Mercuric iodide	7774-29-0	-	Group 3	-	-
Sodium iodide	7681-82-5	-	-	-	-

**Legend**

<b>ACGIH (American Conference of Governmental Industrial Hygienists)</b>	Does not apply
<b>IARC (International Agency for Research on Cancer)</b>	Group 3 - Not classifiable as a human carcinogen
<b>NTP (National Toxicology Program)</b>	Does not apply
<b>OSHA (Occupational Safety and Health Administration of the US Department of Labor)</b>	Does not apply

**Oral Exposure Route**

If available, see data below

**Dermal Exposure Route**

If available, see data below

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

If available, see data below

**Inhalation (Vapor) Exposure Route**

If available, see data below

**Inhalation (Gas) Exposure Route**

If available, see data below

**Product Germ Cell Mutagenicity *in vitro* Data**

No data available.

**Ingredient Germ Cell Mutagenicity *in vitro* Data**

No data available

**Product Germ Cell Mutagenicity *in vivo* 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

**Ingredient Germ Cell Mutagenicity *in vivo* Data**

Oral Exposure Route

If available, see data below

Dermal Exposure Route

If available, see data below

Inhalation (Dust/Mist) Exposure Route

If available, see data below

Inhalation (Vapor) Exposure Route

If available, see data below

Inhalation (Gas) Exposure Route

If available, see data below

**Product Reproductive 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

**Ingredient Reproductive Toxicity Data**

Oral Exposure Route

If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium iodide (3 - 7%) CAS#: 7681-82-5	Woman TD <sub>Lo</sub>	9240 mg/kg	43 weeks	<b>Effects on Newborn</b> Other neonatal measures or effects <b>Specific Developmental Abnormalities</b> Endocrine System	RTECS (Registry of Toxic Effects of Chemical Substances)

Inhalation (Dust/Mist) Exposure Route

If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Mercuric iodide (5 - 10%) CAS#: 7774-29-0	Rat TC <sub>Lo</sub>	0.000004870 mg/L	22 days	<b>Effects on Embryo or Fetus</b> Fetal death <b>Effects on Fertility</b> Post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants)	RTECS (Registry of Toxic Effects of Chemical Substances)

Inhalation (Vapor) Exposure Route

If available, see data below

Inhalation (Gas) Exposure Route

If available, see data below

## Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects

Unknown Aquatic Toxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

**Product Ecological Data**

Aquatic toxicity

Fish

No data available

Crustacea

No data available

Algae

No data available

**Ingredient Ecological Data**

Aquatic toxicity

Fish

If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sodium hydroxide (10 - 20%) CAS#: 1310-73-2	96 hours	<i>Oncorhynchus mykiss</i>	LC <sub>50</sub>	45.4 mg/L	IUCLID (The International Uniform Chemical Information Database)
Mercuric iodide (5 - 10%) CAS#: 7774-29-0	96 hours	<i>Leuciscus idus</i>	LC <sub>50</sub>	0.13 mg/L	Vendor SDS

Sodium iodide (3 - 7%) CAS#: 7681-82-5	96 hours	<i>Oncorhynchus mykiss</i>	LC <sub>50</sub>	3780 mg/L	EPA (United States Environmental Protection Agency)
--	----------	----------------------------	------------------	-----------	---

**Crustacea** If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sodium hydroxide (10 - 20%) CAS#: 1310-73-2	48 Hours	<i>Daphnia sp.</i>	EC <sub>50</sub>	40.4 mg/L	IUCLID (The International Uniform Chemical Information Database)
Mercuric iodide (5 - 10%) CAS#: 7774-29-0	48 Hours	<i>Daphnia magna</i>	EC <sub>50</sub>	0.0052 mg/L	Vendor SDS
Sodium iodide (3 - 7%) CAS#: 7681-82-5	48 Hours	<i>Daphnia magna</i>	EC <sub>50</sub>	0.17 mg/L	EPA (United States Environmental Protection Agency)

**Algae** No data available**Other Information****Persistence and degradability****Product Biodegradability Data**

No data available.

**Ingredient Biodegradability Data**

Chemical name	Test method	Biodegradation	Exposure time	Results
Sodium hydroxide (10 - 20%) CAS#: 1310-73-2	None reported	None reported	None reported	Readily biodegradable
Mercuric iodide (5 - 10%) CAS#: 7774-29-0	None reported	None reported	None reported	Not readily biodegradable
Sodium iodide (3 - 7%) CAS#: 7681-82-5	Inorganic Salt	None reported	None reported	Not readily biodegradable

**Bioaccumulation****Product Bioaccumulation Data**

No data available.

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

Not applicable

**Ingredient Bioaccumulation Data**

Chemical name	Test method	Exposure time	Species	Bioconcentration factor (BCF)	Results
Mercuric iodide (5 - 10%) CAS#: 7774-29-0	None reported	None reported	None reported	BCF >= 500	Has the potential to bioaccumulate

**Mobility****Soil Organic Carbon-Water Partition Coefficient**

Not applicable

**Water solubility**

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

**Other adverse effects**

Contains a substance with an endocrine-disrupting potential.

### Section 13: DISPOSAL CONSIDERATIONS

**Disposal methods****Waste from residues/unused products**

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging**

Do not reuse empty containers.

### Section 14: TRANSPORT INFORMATION

**ADG**

**UN Number** UN2922  
**Proper shipping name** Corrosive Liquid, Toxic, N.O.S.  
**Hazard Class** 8  
**Subsidiary hazard class** 6.1  
**Packing Group** II

**IATA**

**UN/ID no** UN2922  
**Proper shipping name** Corrosive Liquid, Toxic, N.O.S.  
**Hazard Class** 8  
**Subsidiary hazard class** 6.1  
**Packing Group** II  
**ERG Code** 154

**IMDG**

**UN/ID no** UN2922  
**Proper shipping name** Corrosive Liquid, Toxic, N.O.S.  
**Hazard Class** 8  
**Subsidiary hazard class** 6.1  
**Packing Group** II  
**Marine pollutant** This material meets the definition of a marine pollutant

**Additional information**

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods.

If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

### Section 15: REGULATORY INFORMATION

**Regulatory information****National regulations****Australia**

Model Work Health and Safety Regulations

[NOHSC:2011(2003) National Code of Practice for the Preparation of Material Safety Data Sheets  
Labelling of Workplace Hazardous Chemicals Code of Practice  
See section 8 for national exposure control parameters

**National pollutant inventory**

Subject to reporting requirement

Chemical name	National pollutant inventory
Mercuric iodide - 7774-29-0	5 kg/yr Threshold category 1b 20 MW Threshold category 2b 60000 MWH Threshold category 2b 2000 tonne/yr Threshold category 2b

**Banned and/or restricted**

No Products Listed.

**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>TCSI</b>	Complies
<b>AICS</b>	Complies
<b>NZIoC</b>	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

**TCSI** - Taiwan Chemical Substances Inventory

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**International Regulations**

**Ozone-depleting substances (ODS)** Not applicable

**Persistent Organic Pollutants** Not applicable

**Export Notification requirements**

Chemical name	Export Notification requirements
Mercuric iodide - 7774-29-0	Rotterdam

### Section 16: Any other relevant information

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

<i>NIOSH IDLH</i>	<i>Immediately Dangerous to Life or Health</i>
<i>ACGIH</i>	<i>ACGIH (American Conference of Governmental Industrial Hygienists)</i>
<i>NDF</i>	<i>no data</i>

**Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value	MAC	Maximum Allowable Concentration
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

**Prepared By** Hach Product Compliance Department

**Issue Date** 07-Jun-2016

**Revision Date** 05-Feb-2018

**Revision Note**

16  
(M)SDS sections updated

**Reference Sources for Section 11**

See Section 11: TOXICOLOGICAL INFORMATION

**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©2017

**End of Safety Data Sheet**