



Be Right™

# SAFETY DATA SHEET

Issue Date 22-Jul-2019

Revision Date 22-Jul-2019

Version 2.1

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## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product identifier**

Product Code(s) 1416442

Safety data sheet number M01231

Product Name Potassium Permanganate Solution 1.0 g/l

Contains Contains Potassium permanganate

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

Recommended Use Standard solution.

Uses advised against Consumer use

**Details of the supplier of the safety data sheet**

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

**Emergency telephone number**

+1 (303) 623-5716 - 24 Hour Service +1 (515)232-2533 - 8am - 4pm CST  
Chemtrec 1-800-424-9300

E-mail address seasia@hach.com

## Section 2: HAZARDS IDENTIFICATION

**GHS Classification**

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Respiratory sensitization	Classification not possible
Skin sensitization	Classification not possible
Mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Category 2
Chronic aquatic toxicity	Category 3

**Label elements**



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**Signal word - Danger**

**Hazard statements**

H314 - Causes severe skin burns and eye damage  
H361 - Suspected of damaging fertility or the unborn child  
H412 - Harmful to aquatic life with long lasting effects

**Precautionary statements**

P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
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  
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  
P201 - Obtain special instructions before use  
P308 + P313 - IF exposed or concerned: Get medical advice/attention  
P405 - Store locked up  
P273 - Avoid release to the environment  
P501 - Dispose of contents/ container to an approved waste disposal plant

**Other Hazards Known**

No information available

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**Chemical Family** Mixture

**Substance**

Not applicable

**Mixture**

**Chemical nature**

Aqueous solution of inorganic acids and salts.

Chemical name	Formula	EC No.	CAS No.	Percent Range	Malaysia ICOP GHS Classification
Potassium permanganate	KMnO <sub>4</sub>	231-760-3	7722-64-7	<1%	Not Listed
Nitric acid	HNO <sub>3</sub>	231-714-2	7697-37-2	<0.1%	Ox. Liq. 3, H272 Eye Dam. 1, H318 Skin Corr. 1A, H314

**Section 4: FIRST AID MEASURES**

**Description of necessary first aid measures**

**General advice** Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

**Inhalation** 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.

**Skin contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

**Ingestion**

Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

**For emergency responders**

**Self-protection of the first aider**

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

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

**Symptoms**

Burning sensation.

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

**Note to physicians**

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

## Section 5: FIRE FIGHTING 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**

Not classified as flammable according to GHS criteria

**Explosive properties**

Not classified according to GHS criteria.

**Hazardous combustion products**

This material will not burn.

**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** Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**For emergency responders** Use personal protective equipment as required.

**Environmental precautions**

**Environmental precautions** 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.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

**Reference to other sections** See section 8 for more information.  
See section 13 for more information.

**Section 7: HANDLING AND STORAGE**

**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. 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. Take off contaminated clothing and wash before reuse. Remove contaminated clothing and shoes.

**Precautions for safe handling**

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

**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** Acids. Bases. Oxidizing agent.

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

**Control parameters**

**Exposure Limits**

Chemical name	Malaysia
Potassium permanganate (<1%) CAS#: 7722-64-7	TWA: 0.2 mg/m <sup>3</sup>
Nitric acid (<0.1%) CAS#: 7697-37-2	TWA: 2 ppm TWA: 5.2 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** Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

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

**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>Color</b>	dark violet
<b>Appearance</b>	aqueous solution	<b>Odor threshold</b>	Not applicable
<b>Odor</b>	Odorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Molecular weight</b>	Not applicable	
<b>pH</b>	1.0	
<b>Melting point/freezing point</b>	~ 0 °C / 32 °F	
<b>Boiling point / boiling range</b>	~ 100 °C / 212 °F	
<b>Evaporation rate</b>	1 (water = 1)	
<b>Vapor pressure</b>	23.777 mm Hg / 3.17 kPa at 25 °C / 77 °F	
<b>Vapor density (air = 1)</b>	0.62 (air = 1)	
<b>Specific gravity (water = 1 / air = 1)</b>	0.990	
<b>Partition Coefficient (n-octanol/water)</b>	Not applicable	
<b>Soil Organic Carbon-Water Partition Coefficient</b>	Not applicable	

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**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**

None reported	No information available	No data available	No information available
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**Other Information**

**Metal Corrosivity**

**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>
Potassium permanganate	7722-64-7	No data available	-
Nitric acid	7697-37-2	Not applicable	-

**Explosive properties**

**Upper explosion limit** Not applicable  
**Lower explosion limit** Not applicable

**Flammable properties**

**Flash point** No data 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

**Section 10: STABILITY AND REACTIVITY**

**Reactivity**

Not applicable.

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**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**

Hazardous polymerization does not occur.

**Conditions to avoid**

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

**Incompatible materials**

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

**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. Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.

**Eye contact**

Causes burns. Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.

**Skin contact**

May cause irritation.

**Ingestion**

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.

**Symptoms**

Redness. Burning. May cause blindness. Coughing and/ or wheezing.

**Acute toxicity**

Based on available data, the classification criteria are not met

**Product Acute Toxicity Data**

No data available.

**Ingredient Acute Toxicity Data**

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium	Rat	750 mg/kg	None	None reported	RTECS (Registry of Toxic

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permanganate (<1%) CAS#: 7722-64-7	LD <sub>50</sub>		reported		Effects of Chemical Substances)
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**Unknown Acute Toxicity**

0.0004 % of the mixture consists of ingredient(s) of unknown toxicity.

- 0.0004 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 0.0004 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 0.0004 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)
- 0.0004 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 0.0004 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

**Acute Toxicity Estimations (ATE)**

<b>ATEmix (oral)</b>	No information available
<b>ATEmix (dermal)</b>	No information available
<b>ATEmix (inhalation-dust/mist)</b>	No information available
<b>ATEmix (inhalation-vapor)</b>	No information available
<b>ATEmix (inhalation-gas)</b>	No information available

**Skin corrosion/irritation**

May cause skin irritation.

**Product Skin Corrosion/Irritation Data**

No data available.

**Ingredient Skin Corrosion/Irritation Data**

No data available.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Potassium permanganate (<1%) CAS#: 7722-64-7	Existing human experience	Human	None reported	None reported	Corrosive to skin	IPCS INCHEM (International Programme on Chemical Safety)
Nitric acid (<0.1%) CAS#: 7697-37-2	Existing human experience	Human	None reported	None reported	Corrosive to skin	ERMA (New Zealand's Environmental Risk Management Authority)

**Serious eye damage/irritation**

Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

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

No data available.

**Ingredient Eye Damage/Eye Irritation Data**

No data available.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Nitric acid (<0.1%) CAS#: 7697-37-2	Existing human experience	Human	None reported	None reported	Corrosive to eyes	ERMA (New Zealand's Environmental Risk Management Authority)

**Respiratory or skin sensitization**

Based on available data, the classification criteria are not met.

**Product Sensitization Data**

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No data available.

**Ingredient Sensitization Data**

No data available.

**STOT - single exposure**

Based on available data, the classification criteria are not met.

**Product Specific Target Organ Toxicity Single Exposure Data**

No data available.

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

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium permanganate (<1%) CAS#: 7722-64-7	Woman LD <sub>Lo</sub>	100 mg/kg	None reported	<b>Vascular</b>	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
Nitric acid (<0.1%) CAS#: 7697-37-2	Rat TD <sub>Lo</sub>	226500 mg/kg	None reported	<b>Blood</b> Methemoglobinemia-Carboxyhe moglobin	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
Nitric acid (<0.1%) CAS#: 7697-37-2	Rat TC <sub>Lo</sub>	460 mg/L	1 hours	<b>Nutritional and Gross Metabolic</b> Weight loss or decreased weight gain	RTECS (Registry of Toxic Effects of Chemical Substances)

**STOT - repeated exposure**

Based on available data, the classification criteria are not met.

**Product Specific Target Organ Toxicity Repeat Dose Data**

No data available.

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

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Nitric acid (<0.1%) CAS#: 7697-37-2	Rat TC <sub>Lo</sub>	0.001071 mg/L	84 days	<b>Behavioral</b> Muscle contraction or spasticity <b>Biochemical</b> Enzyme inhibition, induction, or change in blood or tissue levels (true cholinesterase) <b>Kidney, Ureter, or Bladder</b> Other changes in urine composition	RTECS (Registry of Toxic Effects of Chemical Substances)

**Carcinogenicity**

Based on available data, the classification criteria are not met.

**Product Carcinogenicity Data**

No data available.

**Ingredient Carcinogenicity Data**

No data available.

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Potassium permanganate	7722-64-7	-	-	-	-
Nitric acid	7697-37-2	-	Group 2A Group 1	-	X

**Legend**

<b>ACGIH (American Conference of Governmental Industrial Hygienists)</b>	Does not apply
<b>IARC (International Agency for Research on Cancer)</b>	Does not apply
<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

**Germ cell mutagenicity**

Based on available data, the classification criteria are not met.

**Product Germ Cell Mutagenicity invitro Data**

No data available.

**Ingredient Germ Cell Mutagenicity invitro Data**

No data available.

**Product Germ Cell Mutagenicity invivo Data**

No data available.

**Ingredient Germ Cell Mutagenicity invivo Data**

No data available.

Chemical name	Test	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Potassium permanganate (<1%) CAS#: 7722-64-7	Cytogenetic analysis	Mouse	718 mg/kg	7 days	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

**Reproductive toxicity**

Classification based on data available for ingredients. Contains a known or suspected reproductive toxin. The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

**Product Reproductive Toxicity Data**

No data available.

**Ingredient Reproductive Toxicity Data**

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium permanganate (<1%) CAS#: 7722-64-7	Rat TD <sub>Lo</sub>	50 mg/kg	None reported	<b>Effects on Fertility</b> Disturbances in sexual function <b>Paternal Effects</b> Testicular changes	RTECS (Registry of Toxic Effects of Chemical Substances)
Nitric acid (<0.1%) CAS#: 7697-37-2	Rat TD <sub>Lo</sub>	21150 mg/kg	21 days	<b>Effects on Embryo or Fetus</b> Fetotoxicity (except death e.g. stunted fetus)	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
Potassium permanganate (<1%) CAS#: 7722-64-7	Rat TD <sub>Lo</sub>	50 mg/kg	None reported	<b>Effects on Fertility</b> Disturbances in sexual function <b>Paternal Effects</b> Testicular changes	RTECS (Registry of Toxic Effects of Chemical Substances)

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Section 12: ECOLOGICAL INFORMATION**

**Ecotoxicity** Harmful to aquatic organisms.

**Unknown aquatic toxicity** 0.0004% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

**Product Ecological Data**

**Aquatic Acute Toxicity**

No data available.

**Aquatic Chronic Toxicity**

No data available.

**Ingredient Ecological Data**

**Aquatic Acute Toxicity**

No data available.

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Potassium permanganate (<1%) CAS#: 7722-64-7	96 hours	<i>Oncorhynchus mykiss</i>	LC <sub>50</sub>	0.3 mg/L	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Potassium permanganate (<1%) CAS#: 7722-64-7	48 Hours	<i>Daphnia magna</i>	EC <sub>50</sub>	0.084 mg/L	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)

**Aquatic Chronic Toxicity**

No data available.

**Persistence and degradability**

**Product Biodegradability Data**

No data available.

**Bioaccumulation**

**Product Bioaccumulation Data**

No data available.

**Partition Coefficient (n-octanol/water)** Not applicable

**Mobility**

**Soil Organic Carbon-Water Partition Coefficient** Not applicable

**Other adverse effects**

Contains a substance with an endocrine-disrupting potential.

**Section 13: DISPOSAL CONSIDERATIONS**

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#### 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

#### IMDG

<b>UN/ID no</b>	UN3264
<b>Proper shipping name</b>	Corrosive liquid, acidic, inorganic, n.o.s.
<b>IMDG Technical Name</b>	Potassium permanganate, Nitric acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	III
<b>Marine pollutant</b>	Not applicable
<b>Special precautions for user</b>	Not applicable
<b>Special precautions for user</b>	223, 274
<b>EmS-No</b>	F-A, S-B

#### ADR

<b>UN/ID no</b>	UN3264
<b>Proper shipping name</b>	Corrosive Liquid, Acidic, Inorganic, N.O.S.
<b>ADR Technical Name</b>	Potassium permanganate, Nitric acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	III
<b>Description</b>	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Potassium permanganate, Nitric acid), 8, III, (E)
<b>Environmental hazard</b>	Not applicable
<b>Special precautions for user</b>	None
<b>Classification code</b>	C1

#### IATA

<b>UN/ID no</b>	UN3264
<b>Proper shipping name</b>	Corrosive liquid, acidic, inorganic, n.o.s.
<b>IATA Technical Name</b>	Potassium permanganate, Nitric acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	III
<b>Environmental hazard</b>	Not applicable
<b>Special precautions for user</b>	A3, A803
<b>ERG Code</b>	8L

#### **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

##### Malaysia

GHS-Specification for Classification, Labeling and Formulation of Safety Data Sheet for Chemical Products (MS1804:2008)  
Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) (CLASS Regulations)  
Industry Code of Practice on Chemical and Hazard Communication (ICOP)

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Guidance for the Industry on the Notification and Registration Scheme for Environmentally Hazardous Substances in Malaysia (EHSNR Guidance)  
See section 8 for national exposure control parameters

#### 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

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

### Section 16: OTHER 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.

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**Product Name** Potassium Permanganate Solution 1.0 g/l  
**Revision Date** 22-Jul-2019  
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SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

**Prepared By** Hach Product Compliance Department

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**Revision Date** 22-Jul-2019

**Revision Note** None

**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.

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**End of Safety Data Sheet**