



**Be Right™**

# SAFETY DATA SHEET

**Issue Date** 21-Sep-2020

**Revision Date**  
21-Sep-2020

**Version** 3

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## 1. IDENTIFICATION

**Obsolete Item Statement** This product is Obsolete and is no longer manufactured

**Product identifier**

**Product Name** APA Cleaning Solution, Phosphoric Acid Wash

**Other means of identification**

**Product Code(s)** 2696453

**Safety data sheet number** M01112

**UN/ID no** UN1805

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

**Recommended Use** Laboratory Use.

**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 +1(970) 669-3050

**Emergency telephone number**

+1(303) 623-5716 - 24 Hour Service

## 2. HAZARDS IDENTIFICATION

**Classification**

**Regulatory Status**

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

Corrosive to metals	Category 1
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

**Hazards not otherwise classified (HNOC)**

Not applicable

**Label elements**

**Signal word**

Warning



#### Hazard statements

H290 - May be corrosive to metals  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation

#### Precautionary statements

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P332 + P313 - If skin irritation occurs: Get medical attention  
P362 - Take off contaminated clothing and wash before reuse  
P280 - Wear protective gloves, protective clothing, eye protection, and face protection  
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 attention  
P234 - Keep only in original container  
P390 - Absorb spillage to prevent material damage

#### Other Hazards Known

None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance

Not applicable

#### Mixture

Chemical name	CAS No.	Percent Range	HMRIC #
Phosphoric acid	7664-38-2	10 - 20%	-

### 4. FIRST AID MEASURES

#### Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<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 medical attention if irritation develops and persists.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<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. Call a physician.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing.

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

**Symptoms** Burning sensation.

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

**Note to physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

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

**Unsuitable Extinguishing Media** Caution: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical** No information available.

**Hazardous combustion products** This material will not burn.

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

**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.

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

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.

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

**Environmental precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

**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.

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

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

**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.

**Flammability class**

Not applicable

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Phosphoric acid CAS#: 7664-38-2	STEL: 3 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup> (vacated) STEL: 3 mg/m <sup>3</sup>	IDLH: 1000 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>

**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**

If splashes are likely to occur, wear safety glasses with side-shields.

**Skin and body protection**

Wear suitable protective clothing. Long sleeved clothing.

**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.

**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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid		
<b>Appearance</b>	aqueous solution	<b>Color</b>	colorless
<b>Odor</b>	Acidic	<b>Odor threshold</b>	No data available

**Property**

**Values**

**Remarks • Method**

**Molecular weight**

No data available

pH	0.7
Melting point/freezing point	~ -3 °C / 27 °F
Boiling point / boiling range	99 °C / 210 °F
Evaporation rate	0.71 (water = 1)
Vapor pressure	23.102 mm Hg / 3.08 kPa at 25 °C / 77 °F
Vapor density (air = 1)	0.62 (Air = 1)
Specific gravity (water = 1 / air = 1)	1.073
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

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

##### Solubility in other solvents

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

#### 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

Chemical name	CAS No.	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Phosphoric acid	7664-38-2	Not applicable	-

##### Explosive properties

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

##### Flammable properties

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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	No data available

## 10. STABILITY AND REACTIVITY

### Reactivity

Not applicable.

### Chemical stability

Stable under normal conditions.

### Explosion data

Sensitivity to Mechanical Impact None.  
Sensitivity to Static Discharge None.

### Possibility of Hazardous Reactions

None under normal processing.

### Hazardous polymerization

None under normal processing.

### Conditions to avoid

Exposure to air or moisture over prolonged periods.

### Incompatible materials

Oxidizing agent. Strong acids. Strong bases.

### Hazardous Decomposition Products

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

## 11. TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

#### **Product Information**

<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Eye contact</b>	Irritating to eyes. Causes serious eye irritation.
<b>Skin contact</b>	Causes skin irritation.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
<b>Symptoms</b>	Redness. May cause redness and tearing of the eyes.

### 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.

**Unknown Acute Toxicity**  
0% of the mixture consists of ingredient(s) of unknown toxicity.

**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**  
Classification based on data available for ingredients. Irritating to skin.

**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
Phosphoric acid (10 - 20%) CAS#: 7664-38-2	Standard Draize Test	Rabbit	800 mg	None reported	Corrosive to skin	ECHA (The European Chemicals Agency)

**Serious eye damage/irritation**  
Classification based on data available for ingredients. Irritating 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
Phosphoric acid (10 - 20%) CAS#: 7664-38-2	Standard Draize Test	Rabbit	199 mg	None reported	Corrosive to eyes	RTECS (Registry of Toxic Effects of Chemical Substances)

**Respiratory or skin sensitization**  
Based on available data, the classification criteria are not met.

**Product Sensitization Data**  
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.

**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.

**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
Phosphoric acid	7664-38-2	-	-	-	-

**Legend**

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA (Occupational Safety and Health Administration of the US Department of Labor)	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.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Phosphoric acid (10 - 20%) CAS#: 7664-38-2	Mutation in microorganisms	Salmonella typhimurium	5 mg/plate	3 days	Negative test result for mutagenicity	ECHA (The European Chemicals Agency)

**Product Germ Cell Mutagenicity invitivo Data**

No data available.

**Ingredient Germ Cell Mutagenicity invitivo Data**

No data available.

**Reproductive toxicity**

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

**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
Phosphoric acid (10 - 20%) CAS#: 7664-38-2	Rat NOAEL	>= 500 mg/kg	6 weeks	No reproductive or developmental toxic effects observed	ECHA (The European Chemicals Agency)

**Aspiration hazard**

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

## 12. ECOLOGICAL INFORMATION

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

**Unknown aquatic toxicity** 0% 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.

**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**  
No information available.

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment 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.
US EPA Waste Number	D002
Special instructions for disposal	Dispose of in accordance with federal, state and local regulations.

#### 14. TRANSPORT INFORMATION

##### DOT

UN/ID no	UN1805
Proper shipping name	Phosphoric Acid Solution
Hazard Class	8
Packing Group	III
Reportable Quantity (RQ)	Phosphoric acid: RQ kg= 16952.95
Description	UN1805, Phosphoric acid solution, 8, III, RQ
Emergency Response Guide Number	154

##### TDG

UN/ID no	UN1805
Proper shipping name	Phosphoric acid, solution
Hazard Class	8
Packing Group	III
Description	UN1805, Phosphoric acid, solution, 8, III

##### IATA

UN/ID no	UN1805
Proper shipping name	Phosphoric acid, solution
Hazard Class	8
Packing Group	III
ERG Code	8L
Special precautions for user	A3, A803

##### IMDG

UN/ID no	UN1805
Proper shipping name	Phosphoric acid solution
Hazard Class	8
Packing Group	III
EmS-No	F-A, S-B
Special precautions for user	223

##### Note:

No special precautions necessary.

##### 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.

#### 15. REGULATORY INFORMATION

##### National Inventories

TSCA	Complies
DSL/NDSL	Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**International Inventories**

<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>Existing substances</b>	Complies
<b>PICCS</b>	Complies
<b>TCSI</b>	Complies
<b>AICS</b>	Complies
<b>NZIoC</b>	Complies

**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

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	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
Phosphoric acid 7664-38-2	5000 lb	-	-	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

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Phosphoric acid 7664-38-2	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

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

This product does not contain any substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
Phosphoric acid 7664-38-2	X	X	X

**U.S. EPA Label Information**

Chemical name	FIFRA	FDA
Phosphoric acid	180.0910	21 CFR 182.1073

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

**Special Comments**

None

**Additional information**

**Global Automotive Declarable Substance List (GADSL)**

Not applicable

**NFPA and HMIS Classifications**

NFPA	Health hazards - 3	Flammability - 0	Instability - 0	Physical and chemical properties -
HMIS	Health hazards - 3	Flammability - 0	Physical hazards - 0	Personal protection - X

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

NIOSH IDLH

*Immediately Dangerous to Life or Health*

ACGIH

ACGIH (American Conference of Governmental Industrial Hygienists)

NDF

*no data*

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

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
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

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**Revision Note** SDS sections updated

**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**