Hi Clean Acid

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
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SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Hi Clean Acid
Product code : 4195-0330

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Acid CIP
Use of the substance/mixture : Cleaning product: component
Recommended use : Acid Cleaner, Cleaning Product

1.3. Supplier

ProActive Solutions USA, LLC
301 Bridge Street
Green Bay, WI, Brown, 54303
United States of America
T 920-437+8658 - F 920-437+4006
www.proactivesolutionsusa.com

1.4. Emergency telephone number

Emergency number : 800-424-9300 ERI 17953

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Corrosive to metals Category 1	H290	May be corrosive to metals
Skin corrosion/irritation Category 1A	H314	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	H318	Causes serious eye damage

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger
Hazard statements (GHS US) : H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
Precautionary statements (GHS US) : P260 - Do not breathe vapors.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves, eye protection.
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - If inhaled: Remove person to fresh air and keep 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.
P363 - Wash contaminated clothing before reuse.
P390 - Absorb spillage to prevent material-damage.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
nitric acid 99%	CAS-No.: 7697-37-2	5 – 10	Ox. Liq. 2, H272 Met. Corr. 1, H290 Skin Corr. 1A, H314
Sulfuric acid	CAS-No.: 7664-93-9	5 – 10	Skin Corr. 1A, H314 Carc. 1A, H350
Phosphoric Acid	CAS-No.: 7664-38-2	5 – 10	Skin Corr. 1A, H314 Eye Dam. 1, H318

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Burns.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe vapors.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe vapors. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Avoid contact with eyes, skin, and clothing. Avoid breathing vapors or mist. Do not eat, drink or smoke when using this product. Use with adequate ventilation. Wash thoroughly after handling.
Storage conditions : Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. Store in a well-ventilated place. Keep cool.
Incompatible products : Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Incompatible materials : Metals.
Storage area : Keep container tightly closed. Keep container in a well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hi Clean Acid
No additional information available

Phosphoric Acid (7664-38-2)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Phosphoric acid
ACGIH OEL TWA	1 mg/m³
ACGIH OEL STEL	3 mg/m³
Remark (ACGIH)	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Phosphoric acid
OSHA PEL (TWA) [1]	1 mg/m³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Sulfuric acid (7664-93-9)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Sulfuric acid
ACGIH OEL TWA	0.2 mg/m³ (T - Thoracic particulate matter)
Remark (ACGIH)	TLV® Basis: Pulm func. Notations: A2 (Suspected Human Carcinogen. Classification refers to sulfuric acid contained in strong inorganic acid mists)
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Sulfuric acid
OSHA PEL (TWA) [1]	1 mg/m³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

nitric acid 99% (7697-37-2)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Nitric acid
ACGIH OEL TWA [ppm]	2 ppm
ACGIH OEL STEL [ppm]	4 ppm
Remark (ACGIH)	TLV® Basis: URT & eye irr; dental erosion
Regulatory reference	ACGIH 2024
USA - OSHA - Occupational Exposure Limits	
Local name	Nitric acid
OSHA PEL (TWA) [1]	5 mg/m³
OSHA PEL (TWA) [2]	2 ppm

nitric acid 99% (7697-37-2)	
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
IDLH [ppm]	25 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA [ppm]	2 ppm
NIOSH REL STEL [ppm]	4 ppm
NIOSH REL (Ceiling)	10 mg/m³

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear red liquid.

Color : red

Odor : None

Odor threshold : No data available

pH : No data available

pH solution : 1.8 1 oz./gal.

Melting point : Not applicable

Freezing point : ≤ 32 °F

Boiling point : No data available

Flash point : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Flammability (solid, gas) : Not applicable.

Vapor pressure : No data available

Relative vapor density at 20°C	:	No data available
Relative density	:	No data available
Density	:	1.128
Solubility	:	Soluble.
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

metals.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

nitric acid 99% (7697-37-2)	
LC50 Inhalation - Rat	> 2.65 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation	:	Causes severe skin burns. Causes severe skin burns and eye damage
Serious eye damage/irritation	:	Causes serious eye damage.
Respiratory or skin sensitization	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified.

Sulfuric acid (7664-93-9)	
IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens

Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

nitric acid 99% (7697-37-2)	
NOAEL (oral,rat,90 days)	1500 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation,rat,gas,90 days)	2.15 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)

Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Symptoms/effects after skin contact : Burns.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

nitric acid 99% (7697-37-2)	
LC50 - Fish [1]	1559 mg/l Test organisms (species): other:
LC50 - Fish [2]	1354 mg/l Test organisms (species): other:

12.2. Persistence and degradability

Phosphoric Acid (7664-38-2)	
Persistence and degradability	Biodegradability: not applicable.

12.3. Bioaccumulative potential

Phosphoric Acid (7664-38-2)	
Bioaccumulative potential	No test data of component(s) available.

12.4. Mobility in soil

Phosphoric Acid (7664-38-2)	
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

14.1. UN number

DOT NA No : 1760

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Corrosive liquid n.o.s., (nitric acid, phosphoric acid, sulfuric acid)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 8

Hazard labels (DOT) : 8

14.4. Packing group

Packing group (DOT) : III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : 1760

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Phosphoric Acid	7664-38-2	Present	Active	
Sulfuric acid	7664-93-9	Present	Active	
nitric acid 99%	7697-37-2	Present	Active	

Phosphoric Acid (7664-38-2)	
Not subject to reporting requirements of the United States SARA Section 313	
CERCLA RQ	5000 lb

Sulfuric acid (7664-93-9)
Not subject to reporting requirements of the United States SARA Section 313 Subject to reporting requirements of United States SARA Section 313

Sulfuric acid (7664-93-9)	
CERCLA RQ	1000 lb
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb

nitric acid 99% (7697-37-2)	
Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb

15.2. International regulations

CANADA

Phosphoric Acid (7664-38-2)

Listed on the Canadian DSL (Domestic Substances List)

Sulfuric acid (7664-93-9)

Listed on the Canadian DSL (Domestic Substances List)

nitric acid 99% (7697-37-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Phosphoric Acid (7664-38-2)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Sulfuric acid (7664-93-9)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

nitric acid 99% (7697-37-2)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

Hi Clean Acid	
U.S. - California - Proposition 65 - Other information	This product can expose you to Nitrous oxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
Phosphoric Acid(7664-38-2)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Sulfuric acid(7664-93-9)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
nitric acid 99%(7697-37-2)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

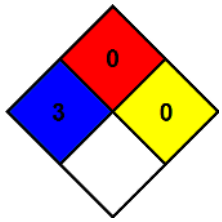
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases	
H272	May intensify fire; oxidizer
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H350	May cause cancer

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : C - Safety glasses, Gloves, Synthetic apron

Safety Data Sheet (SDS), USA

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