

SAFETY DATA SHEET

SECTION I: IDENTIFICATION

Product: NF Low pH CIP

Description: Acid CIP

Company Identification: Solutions² LLC
1621 N. 1st St.
Winterset, IA 50273
Phone: 515-493-1153
Website: www.Solutions2llc.com



Company Emergency Telephone Number: CHEMTREC 1-800-424-9300

SECTION II: HAZARD(S) IDENTIFICATION

GHS CLASSIFICATION

Skin Corrosion/Irritation: Category 1 Sub-category A

Eye Damage/Eye Irritation: Category 1

Corrosive to Metals: Category 1

GHS LABEL ELEMENTS

Signal Word: **Danger**

Hazard Symbol:



Hazard Statements: Causes severe burns and serious eye damage.
Causes serious eye damage.
May be corrosive to metals.

PRECAUTIONARY STATEMENTS

Prevention: Do not breathe dust/fumes/gas/mist/vapors/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash hands, forearms, and other exposed areas thoroughly after handling.
Keep in original or other corrosion resistant container.

Response: Immediately call a POISON CENTER or doctor/physician.

Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

Skin: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.

Inhalation: IF INHALED: Move victim to fresh air and keep at rest in a position comfortable for breathing.

Ingestion: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Spill: Absorb spillage to prevent material damage.

Storage: Store locked up.
Store in a corrosive resistant container.

Disposal: Dispose of contents and container in accordance with local, state and federal regulations.

Hazards Not Classified: Not applicable.

Additional Information: Corrosive.
Keep out of reach children.
Wash contaminated clothing before reuse.

SECTION III: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight - %
Water	7732-18-5	45-60%
Nitric Acid	7697-37-2	36-41%
Phosphoric Acid	7664-38-2	3-8%

Specific chemical identity and/or exact percentage of mixture has been withheld as a trade secret.

SECTION IV: FIRST AID MEASURES

Eye Contact: Rinse with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical assistance immediately.

Skin Contact: Immediately remove all contaminated clothing. Rinse with water or shower for at least 15 minutes. If irritation persists, IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.

Inhalation: Move victim to fresh air and keep at rest in a comfortable position for breathing. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.

Ingestion: Rinse mouth. DO NOT INDUCE VOMITING. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN. Never give anything by mouth to an unconscious person.

SYMPTOMS OF EXPOSURE

Eye Contact: Causes serious eye damage.

Skin Contact: Causes severe burns and eye damage.

Inhalation: Contact may cause severe irritation causing chemical burns.

Ingestion: Ingestion is likely to be harmful or have adverse effects. May cause immediate severe irritation quickly turning to chemical burns.

SECTION V: FIRE-FIGHTING MEASURES

Extinguishing Media: Water spray, fog carbon dioxide, foam, dry chemical.

Specific Hazards from the Chemical: Corrosive vapors.

Hazardous Combustion Products: Phosphorus oxides, Carbon oxides, Toxic fumes released. Nitrogen oxides. Corrosive vapors.

Protective Equipment/Precautions for Firefighters: Wear MSHA/NIOSH approved self contained breathing apparatus (SCBA) and full protective gear. Cool fire-exposed containers with water spray.

SECTION VI: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Environmental Precautions: Do Not rinse spill onto the ground, into storm sewers or bodies of water.

Methods for Cleaning Up: If safe to do so, prevent further leakage or spillage. Contain and collect spillage with non-combustible absorbent material. Place in container for disposal according to local/national regulations (see Section 13).

SECTION VII: HANDLING AND STORAGE

Safe Handling: When heated to decomposition, emits toxic fumes. Corrosive vapors are released. Contact with metals may produce flammable hydrogen gas. Contains an oxidizing material which may accelerate fire. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains.

Storage Conditions for Safe Storage, Including any Incompatibilities: Store in dry, cool, and well-ventilated area. Keep stored away from extreme temperatures, direct sunlight, heat, ignition sources, organic materials, combustible materials, incompatible materials. Store in original tightly closed container. Store away from incompatible materials (see Section 10).

SECTION VIII: EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits: None established.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH
Nitric Acid	4 ppm (STEL) / 2 ppm (TWA)	5 mg/m ³ ; 2 ppm (PEL)	10 mg/m ³ ; 4 ppm (STEL) / 5 mg/m ³ ; 2 ppm (TWA)
Phosphoric Acid	3 mg/m ³ (STEL) / 1 mg/m ³ (TWA)	1 mg/m ³	3 mg/m ³ (STEL) / 1 mg/m ³ (TWA)

Engineering Controls: Ensure good general ventilation. Eye wash stations and shower facilities should be readily accessible in areas where product is handled. Ensure adequate ventilation.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection: Wear splash goggles. For product usage over head wear a face shield over goggles.

Skin/Body Protection: Wear rubber or other chemical resistant gloves. Use of apron, boots and other protective equipment should be considered to prevent or minimize product exposure.

Respiratory Protection: Not required with adequate ventilation. If occupational exposure limits are exceeded or respiratory irritation occurs, use MSHA/NIOSH approved respirator according to conditions and chemicals in Section 3.

General Hygiene: Wash hands and any other exposed skin thoroughly after handling. For further guidance reference 29 CFR 1910.132-138.

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

Appearance / Color	Liquid / Amber
Odor	Mild
pH	1.0
Melting Point / Freezing Point	No information available
Boiling Point / Boiling Range	222° F
Flash Point	> 100° C / > 212° F
Evaporation Rate	No information available
Flammability (Solid, gas)	No information available
Upper Flammability Limit	No information available
Lower Flammability Limit	No information available
Vapor Pressure	No information available
Vapor Density	No information available
Specific Gravity	1.22
Solubility(ies)	No information available
Partition Coefficient	No information available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available

SECTION X: STABILITY AND REACTIVITY

Reactivity: Thermal decomposition generates corrosive vapors. When heated to decomposition, emits toxic fumes. Toxic gases. Corrosive to metals. Explosive hydrogen gas. Contains an oxidizing material which may accelerate fire.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reaction: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extreme temperatures. Heat. Prolonged contact to metals. Combustible material. Incompatible materials.

Incompatible Materials: Strong bases, metals, combustible material, organic materials.

Hazardous Decomposition: Carbon oxides. Thermal decomposition generates toxic gases, corrosive vapors, phosphorus oxides, nitrogen oxides.

SECTION XI: TOXICOLOGICAL INFORMATION**NUMERICAL MEASURES OF TOXICITY****Component Acute Toxicity:**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Nitric Acid	Not available	Not available	65 mg/l (Rat)(4h)
Phosphoric Acid	1,530 mg/kg (Rat)	2,740 mg/kg (Rabbit)	Not available

* When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimated was used in the calculation of the products ATE (Acute Toxicity Estimate).

Likely Routes of Exposure: Eyes, Skin, Ingestion, Inhalation.

SYMPTOMS OF EXPOSURE

Eye Contact: Causes serious eye damage.

Skin Contact: Causes severe burns and eye damage.

Inhalation: Contact may cause severe irritation causing chemical burns.

Ingestion: Ingestion is likely to be harmful or have adverse effects. May cause immediate severe irritation quickly turning to chemical burns.

IMMEDIATE, DELAYED, CHRONIC EFFECTS

Product Information: Data not available or insufficient.

Target Organ Effects: Eyes, Respiratory System, Skin.

Carcinogenicity: No components present at 0.1% or greater are listed to be carcinogens by ACGIH, IARC, NTP or OSHA.

SECTION XII: ECOLOGICAL INFORMATION**ECOTOXICITY**

Chemical Name	Algae/Aquatic Plants	Fish	Microtoxicity	Crustacea
Phosphoric Acid	3 mg/m ³ (STEL) / 1 mg/m ³ (TWA)	1 mg/m ³	3 mg/m ³ (STEL) / 1 mg/m ³ (TWA)	

Persistence and Degradability: Not available.

Bioaccumulative Potential: Not available.

Mobility in Soil: Not available.

SECTION XIII: DISPOSAL CONSIDERATIONS

Disposal of Waste: Dispose of in accordance with federal, state and local regulations.

Contaminated Packaging: Dispose of in accordance with federal, state and local regulations.

SECTION XIV: TRANSPORT INFORMATION

DOT:

UN/ID #: 1760

Proper Shipping Name: Compound, Cleaning Liquid, (Nitric Acid, Phosphoric Acid Solution).

Hazard Class: 8

Packing Group: II

SECTION XV: REGULATORY INFORMATION

TSCA Status: (Toxic Substance Control Act Section 8(b) Inventory):

All chemical components in this product are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

SARA 302: Nitric Acid - Threshold Planning Quantity (TPQ): 1000

SARA 313: Nitric Acid - Emission Reporting: 1.0%

SARA 311/312 HAZARD CATEGORIES

Acute Health Hazard: Yes

Chronic Health Hazard: No

Fire Hazard: No

Sudden Release of Pressure Hazard: No

Reactive Hazard: No

California Proposition 65: This product does not contain any Proposition 65 chemicals.

SECTION XVI: OTHER INFORMATION

Issue Date: 06/01/15

HAZARD RATINGS:

Version #:	1	NFPA:	Health: 3	Flammability: 0	Reactivity: 0
		HMIS:	Health: 3	Flammability: 0	Physical Hazard: 0

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