

# Safety Data Sheet: NM-40

Supersedes Date 07/28/2011

Issuing Date 11/13/2013

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** NM-40  
**Recommended use** Cleaning agent  
**Information on Manufacturer**  
CERTIFIED LABS, DIV. OF NCH CORP.  
BOX 152170  
IRVING, TEXAS 75015

**Product Code** 0010  
**Chemical nature** Acidic Aqueous solution  
**Emergency Telephone Number**  
CHEMTREC® 800-424-9300  
**Telephone inquiry**  
972-579-2477

## 2. HAZARD IDENTIFICATION

**Color** Red violet - Purple

**Physical State** Liquid

**Odor** Pungent

### GHS

#### Classification

##### Physical Hazards

Substances/mixtures corrosive to metal

Category 1

##### Health Hazard

Skin Corrosion/Irritation

Category 1

Serious Eye Damage/Eye Irritation

Category 1

Specific target organ systemic toxicity (repeated exposure)

Category 2

##### Other hazards

None

### Labeling

#### Signal Word

**DANGER**



#### Hazard Statements

H314 - Causes severe skin burns and eye damage

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

H290 - May be corrosive to metals

#### Precautionary Statements

P280 - Wear protective gloves, protective clothing, eye protection and face protection.

P260 - Do not breathe mist.

P264 - Wash face, hands and any exposed skin thoroughly after handling.

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

P332 + P313 - If skin irritation occurs, get medical attention.

P363 - Wash contaminated clothing before reuse

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 physician

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

P342 + P311 - If experiencing respiratory symptoms, call a physician

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Call a physician if unwell.

P390 - Absorb spillage to prevent damage

P406 - Store in a corrosion-resistant container.

P501 - Dispose of contents and container in accordance with applicable regulations.

2 % of the mixture consists of ingredient(s) of unknown toxicity

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Hydrochloric acid	7647-01-0	7-13
Citric acid	77-92-9	1-5

## 4. FIRST AID MEASURES

<b>General advice</b>	Do not get in eyes, on skin or on clothing. Do not breathe mist.
<b>Eye Contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.
<b>Skin Contact</b>	Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.
<b>Inhalation</b>	Move to fresh air. In case of shortness of breath, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
<b>Ingestion</b>	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.
<b>Notes to physician</b>	The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed.

## 5. FIRE-FIGHTING MEASURES

<b>Flash Point</b>	> 201 °F / > 94 °C	<b>Method</b>	Tag closed cup
<b>Flammability Limits in Air % Hydrogen, by reaction with metals.</b>		<b>Upper 75</b>	<b>Lower 4</b>
<b>Suitable Extinguishing Media</b>			
Water spray. Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.			
<b>Specific hazards arising from the chemical</b>			
Material can create slippery conditions. Contact with metals may evolve flammable hydrogen gas.			
<b>Protective Equipment and Precautions for Firefighters</b>			
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.			
<b>NFPA</b>	<b>Health 3</b>	<b>Flammability 1</b>	<b>Instability 0</b>
<b>HMIS</b>	<b>Health 3</b>	<b>Flammability 1</b>	<b>Instability 0</b>

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use personal protective equipment. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.
<b>Environmental Precautions</b>	Do not flush into surface water or sanitary sewer system.
<b>Methods for Containment</b>	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
<b>Methods for Cleaning Up</b>	Pick up and transfer to properly labeled containers.
<b>Neutralizing Agent</b>	Neutralize with lime milk or soda and flush with plenty of water.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Do not get in eyes, on skin or on clothing. Do not breathe mist.			
<b>Storage</b>	Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Metal containers must be lined. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.			
<b>Storage Temperature</b>	<b>Minimum</b>	35 °F / 2 °C	<b>Maximum</b>	100 °F / 38 °C
<b>Storage Conditions</b>	<b>Indoor</b>	X	<b>Outdoor</b>	X
			<b>Heated</b>	
			<b>Refrigerated</b>	

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

## Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Hydrochloric acid	Ceiling: 2 ppm	Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>
Citric acid	No data available	No data available	No data available

<b>Engineering Measures</b>	Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
<b>Personal Protective Equipment</b>	
<b>Eye/Face Protection</b>	Tightly fitting safety goggles. Face-shield.
<b>Skin Protection</b>	Wear suitable protective clothing, Impervious gloves.
<b>Respiratory Protection</b>	In case of insufficient ventilation wear suitable respiratory equipment. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
<b>General Hygiene Considerations</b>	Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid	<b>Viscosity</b>	Non viscous
<b>Color</b>	Red violet - Purple	<b>Odor</b>	Pungent
<b>Odor Threshold</b>	Not applicable	<b>Appearance</b>	Transparent
<b>pH</b>	0.7	<b>Specific Gravity</b>	1.04
<b>Evaporation Rate</b>	0.59 (Butyl acetate=1)	<b>Percent Volatile (Volume)</b>	98.2
<b>VOC Content (%)</b>	0	<b>VOC Content (g/L)</b>	0
<b>Vapor Pressure</b>	16.49 mmHg @ 70°F	<b>Vapor Density</b>	0.6 (Air = 1.0)
<b>Solubility</b>	Completely soluble	<b>n-Octanol/Water Partition</b>	No data available
<b>Melting Point/Range</b>	No data available	<b>Decomposition Temperature</b>	No data available
<b>Boiling Point/Range</b>	219 °F / 104 °C	<b>Flammability (solid, gas)</b>	No data available
<b>Flash Point</b>	> 201 °F / > 94 °C	<b>Method</b>	Tag closed cup
<b>Autoignition Temperature</b>	No information available.		
<b>Flammability Limits in Air %</b>	Hydrogen, by reaction with metals. <b>Upper 75 Lower 4</b>		

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable. Hazardous polymerization does not occur.
<b>Conditions to Avoid</b>	None known
<b>Incompatible Products</b>	Strong bases, Strong oxidizing agents, Reducing agents, Metals, Cyanides, Aldehydes.
<b>Hazardous Decomposition Products</b>	Carbon oxides, Hydrogen chloride gas, Chlorine gas, Hydrogen, by reaction with metals, Sulfur oxides, Nitrogen oxides (NOx).
<b>Possibility of Hazardous Reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

## Product Information

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):

<b>Oral LD50</b>	No information available
<b>Dermal LD50</b>	No information available
<b>Inhalation LC50</b>	
<b>Gas</b>	No information available
<b>Mist</b>	No information available
<b>Vapor</b>	No information available

<b>Principle Route of Exposure</b>	Skin contact, Eye contact, Inhalation.
<b>Primary Routes of Entry</b>	Inhalation

## Acute Effects

<b>Eyes</b>	Corrosive to the eyes and may cause severe damage including blindness.
<b>Skin</b>	Causes skin burns.
<b>Inhalation</b>	Harmful by inhalation. Causes burns.
<b>Ingestion</b>	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

## Chronic Toxicity

Inhaled corrosive substances can lead to a toxic edema of the lungs.

## Target Organ Effects

Respiratory system, Skin, Eyes, Teeth.

## Aggravated Medical Conditions

Skin disorders, Respiratory disorders.

## Component Information

## Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Hydrochloric acid	= 700 mg/kg ( Rat )	> 5010 mg/kg ( Rabbit )	= 3124 ppm ( Rat ) 1 h	no data available	no data available
Citric acid	no data available	no data available	no data available	no data available	no data available

## Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Hydrochloric acid	no data available	no data available	no data available	no data available	eyes, respiratory system, skin, teeth
Citric acid	no data available	no data available	no data available	no data available	Teeth

## Carcinogenicity

There are no known carcinogenic chemicals in this product.

Component	ACGIH	IARC	NTP	OSHA	Other
Hydrochloric acid	not applicable	not applicable	not applicable	not applicable	not applicable
Citric acid	not applicable	not applicable	not applicable	not applicable	not applicable

## 12. ECOLOGICAL INFORMATION

Product Information No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Hydrochloric acid	no data available	LC50 = 282 mg/L <i>Gambusia affinis</i> 96 h	no data available	no data available	N/A
Citric acid	no data available	LC50 = 1516 mg/L <i>Lepomis macrochirus</i> 96 h	EC50 = 14 mg/L 15 min	EC50= 120 mg/L 72 h	-1.72

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

## 13. DISPOSAL CONSIDERATIONS

Product Disposal

Dispose of in accordance with local regulations.

Container Disposal

Empty containers should be taken for local recycling, recovery, or waste disposal.

## 14. TRANSPORT INFORMATION

DOT

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s.  
**Hazard Class** 8  
**UN-No** UN3265  
**Packing Group** II  
**Description** UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (Hydrochloric Acid, Citric Acid), 8, PG II

TDG

**Proper shipping name** Corrosive liquid, acidic, organic, n.o.s  
**Hazard Class** 8  
**UN-No** UN3265  
**Packing Group** II

ICAO

**UN-No** UN3265  
**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s.\*  
**Hazard Class** 8  
**Packing Group** II  
**Shipping Description** UN3265, Corrosive liquid, acidic, organic, n.o.s., (Hydrochloric Acid, Citric Acid), 8, PG II

IATA

**UN-No** UN3265  
**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s.\*  
**Hazard Class** 8  
**Packing Group** II  
**ERG Code** 8L  
**Shipping Description** UN3265, Corrosive liquid, acidic, organic, n.o.s., (Hydrochloric Acid, Citric Acid), 8, PG II

IMDG/IMO

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s.  
**Hazard Class** 8  
**UN-No** UN3265  
**Packing Group** II  
**EmS No.** F-A, S-B  
**Shipping Description** UN3265, Corrosive liquid, acidic, organic, n.o.s., (Hydrochloric Acid, Citric Acid), 8, PG II

## 15. REGULATORY INFORMATION

Inventories

TSCA

Complies

DSL

Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Hydrochloric acid	7647-01-0	7-13	1.0

**SARA 311/312 Hazardous Categorization**

<b>Acute Health Hazard</b>	<b>Chronic Health Hazard</b>	<b>Fire Hazard</b>	<b>Sudden Release of Pressure Hazard</b>	<b>Reactive Hazard</b>
Yes	Yes	No	No	No

**CERCLA**

<b>Component</b>	<b>Hazardous Substances RQs</b>	<b>CERCLA EHS RQs</b>
Hydrochloric acid	5000 lb	500 lb TPQ (gas only) 5000 lb
Citric acid	Not applicable	Not applicable

**16. OTHER INFORMATION**

**Prepared By** Devon Kebodeaux  
**Supersedes Date** 07/28/2011  
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**Reason for Revision** No information available.  
**Glossary** No information available.  
**List of References.** No information available.

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