Hi Temp Acid 445 SAFETY DATA SHEET

Preparation Date: 16-Jul-2008 **Revision Date:** 13-Dec-2018 **Revision Number:** 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Name Hi Temp Acid 445

Other means of identification

Item#: 1895

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Acid detergent, Acidic product for mineral scale removal, Restricted to professional users

Uses advised against All other

Details of the supplier of the safety data sheet

Supplier DeLaval Cleaning Solutions
11100 N. Congress Ave.
Kansas City, MO 64153
Tel: 816-891-7700, 8am – 5pm M-F

Emergency Telephone Number

Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

Acute toxicity - Inhalation (Gases)	Category 2
Skin Corrosion/Irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1B

Sulfuric acid and other mineral acids mist statement

The International Agency for Research on Cancer (IARC) has classified "strong inorganic acid mists containing sulfuric or other strong mineral acids (such as Hydrochloric and Nitric acid) as a known human carcinogen, (IARC category 1). This classification applies only to mists containing such mineral acids and not to the specific acids or their solutions, unless otherwise noted.

Corrosive to metals	Category 1

Label Elements

Emergency Overview

DANGER

Hazard Statements

Fatal if inhaled
Causes severe skin burns and eye damage
May cause cancer
May be corrosive to metals

Appearance Pink **Physical state** Liquid **Odor** No information available

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear respiratory protection
Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Nitric acid	7697-37-2	36
Phosphoric acid	7664-38-2	1 - 10

If a concentration range is shown, the exact concentration has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first-aid measures

Eye contact 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.

Skin contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.

Inhalation Move to fresh air. Get medical attention immediately if symptoms occur.

Ingestion Do not induce vomiting. Drink 1 or 2 glasses of water. Call a physician or Poison Control

Center immediately. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Corrosive. The product causes burns of eyes, skin and mucous membranes.

Indication of any immediate medical attention and special treatment needed

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
No information available.

Specific hazards arising from the chemical
The product causes burns of eyes, skin and mucous membranes.

Sensitivity to static discharge None.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA **Health hazards** 3 **Flammability** 0 **Instability** 1

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Avoid contact with skin, eyes and clothing. Use personal protective equipment.

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

Methods and material for containment and cleaning up
Soak up with inert absorbent material. DO NOT use combustible materials such as sawdust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Incompatible Materials bases, organic materials, light metals (e.g. aluminum, copper, brass, zinc galvanized), bleach

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Only constituents with exposure limits are listed. Any constituent not listed has no known exposure limit.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Nitric acid 7697-37-2	TWA: 2 ppm STEL: 4 ppm	TWA: 2 ppm TWA: 5 mg/m³ STEL: 4 ppm STEL: 10 mg/m³	25 ppm
Phosphoric acid 7664-38-2	TWA: 1 mg/m³ STEL: 3 mg/m³	TWA: 1 mg/m³ STEL: 3 mg/m³	1000 mg/m³

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face Protection Goggles.

Skin and body protection Wear protective gloves and protective clothing.

Respiratory Protection In case of inadequate ventilation wear respiratory protection.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	**Odor**	No information available
Appearance	Pink	**Odor Threshold**	No information available

Property	Values	Remarks/ Method
pH	No information available	
Melting point/freezing point	No information available	
Boiling Point/Range	No information available	
Flash Point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit	No information available	
Lower flammability limit	No information available	
Vapor Pressure	No information available	
Vapor Density	No information available	
Specific Gravity	1.26	
Water Solubility	soluble	
Partition coefficient: n-octanol/water	No information available	
Autoignition Temperature	No information available	
Decomposition temperature	No information available	
Viscosity of Product	No information available	
Dynamic viscosity	No information available	

Other information

Liquid Density 10.5 lb/gal

10. STABILITY AND REACTIVITY

Reactivity
May react with other chemicals. Do not mix with other chemicals except as directed on label.

Chemical Stability
Stable under normal conditions.

Possibility of hazardous reactions
Gives off hydrogen by reaction with some metals (e.g. aluminum). Contact with combustible material may cause fire.

Conditions to Avoid
Extremes of temperature and direct sunlight.

Incompatible Materials
bases, organic materials, light metals (e.g. aluminum, copper, brass, zinc galvanized), bleach

Hazardous decomposition products
None known.

11. TOXICOLOGICAL INFORMATION

Principal Routes of Exposure Eye contact, Skin contact, Ingestion

Information on likely routes of exposure

Eyes Corrosive to the eyes and may cause severe damage including blindness.
Skin Extremely corrosive and destructive to tissue.
Ingestion Ingestion causes burns of the upper digestive and respiratory tracts.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization None known.
Mutagenic effects None known.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Nitric acid 7697-37-2	Not Listed	Group 1 Group 2A	Not Listed	Not Listed

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Reproductive Effects None known.
STOT - single exposure None known.
STOT - repeated exposure None known.
Aspiration Hazard None known.

Numerical measures of toxicity
If available, toxicity values of individual components are shown below.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Nitric acid 7697-37-2	No data available	No data available	= 130 mg/m³ (Rat) 4 h = 2500 ppm (Rat) 1 h
Phosphoric acid 7664-38-2	= 1530 mg/kg (Rat)	2730 mg/kg (Rabbit)	850 mg/m³ (Rat) 1 h

0.0005% of the mixture consists of ingredient(s) of unknown toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicity
If available, ecotoxicity values of individual components are shown below.

Chemical name	Algae/aquatic plants	Fish	Microtox	Waterflea
Nitric acid 7697-37-2	No data available	72: 96 h Gambusia affinis mg/L LC50	No data available	No data available
Phosphoric acid	No data available	3 - 3.5: 96 h Gambusia	No data available	4.6: 12 h Daphnia magna

7664-38-2		affinis mg/L LC50		mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation/Accumulation
No information available.

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method Dispose of in accordance with local regulations. Should not be released into the environment.

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

14. TRANSPORT INFORMATION

DOT

UN-No 3264
Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s (Nitric Acid, Phosphoric acid)
Hazard Class 8
Packing Group II

15. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 (SARA) - Section 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

Nitric acid (CAS# 7697-37-2)

State Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Nitric acid 7697-37-2	X	X	X
Phosphoric acid 7664-38-2	X	X	X

U.S. EPA Label information

EPA Pesticide registration number Not applicable

16. OTHER INFORMATION

Preparation Date: 16-Jul-2008
Revision Date: 13-Dec-2018
Revision Note: None

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of SDS