

CN03500

MATERIAL SAFETY DATA SHEET

Ashland

Page 001

Date Prepared: 09/10/02

Date Printed: 01/31/03

MSDS No: 999.0000998-010.001

NITRIC ACID LP CLEANROOM

ASHE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: NITRIC ACID LP CLEANROOM

SAP Material No: 3655317 350 01S

General or Generic ID: INORGANIC ACID

Company

Ashland
Ashland Distribution Co. &
Ashland Specialty Chemical Co.
P. O. Box 2219
Columbus, OH 43216
614-790-3333

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)
24 hours everyday

Regulatory Information Number:

1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
NITRIC ACID	7697-37-2	70.0- 70.0
WATER	7732-18-5	28.0- 32.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause permanent eye injury. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure the cornea and cause blindness.

Skin

Can cause permanent skin damage. Symptoms may include redness, burning, and swelling of skin, burns, and other skin damage. Additional symptoms of skin contact may include: abnormal coloring of the skin.

Swallowing

Swallowing this material may be harmful or fatal. Symptoms may include severe stomach and intestinal irritation (nausea, vomiting, diarrhea), abdominal pain, and vomiting of blood. Swallowing this material may cause burns and destroy tissue in the mouth, throat, and digestive tract. Low blood pressure and shock may occur as a result of severe tissue injury.

Inhalation

Breathing of vapor or mist is possible. Breathing this material may be harmful or fatal. Symptoms may include severe irritation and burns to the nose, throat, and respiratory tract. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: lung edema (fluid buildup in the lung tissue).

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Target Organ Effects

Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: damage to tooth enamel, chronic bronchitis

Developmental Information

There are no data available for assessing risk to the fetus from maternal exposure to this material.

Cancer Information

This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion.

4. FIRST AID MEASURES

Eyes

If material gets into the eyes, immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing as recommended above. Seek immediate medical attention.

Skin

Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before reuse and discard contaminated shoes.

Swallowing

Seek immediate medical attention. Do not induce vomiting. Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinse mouth with water and give milk or water to drink. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions).

5. FIRE FIGHTING MEASURES

Flash Point

Not applicable

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Explosive Limit

Not applicable

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: acid vapors, nitrogen oxides.

Fire and Explosion Hazards

Substance is an oxidizer. Will increase fire hazard if in contact with combustibles.

Extinguishing Media

water fog.

Fire Fighting Instructions

Water may be used to keep fire-exposed containers cool until fire is out. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 3, Flammability - 0, Reactivity - 0, Specific Hazard - Oxidizer

6. ACCIDENTAL RELEASE MEASURES

Small Spill

Cover the contaminated surface with sodium bicarbonate or a soda ash/flaked lime mixture (50-50). Mix and add water if necessary to form a slurry. Scoop up slurry and wash site with soda ash solution. Proper mixing procedures are essential. Trained personnel should conduct this procedure. Untrained personnel should be removed from the spill area.

Large Spill

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. Persons not wearing protective equipment should be excluded from area of spill until clean-up is completed. Stop spill at source. Dike to prevent spreading. Pump to salvage tank.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Addition to water releases heat which can result in violent boiling and spattering. Always add slowly and in small amounts. Never use hot water. Never add water to acids. Always add acids to water.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles and face shield (8" min.) in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

Skin Protection

Wear resistant gloves (consult your safety equipment supplier).. To prevent skin contact, wear impervious clothing and boots..

Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines

Component

NITRIC ACID (7697-37-2)
OSHA PEL 2.000 ppm - TWA
OSHA VPEL 2.000 ppm - TWA
OSHA VPEL 4.000 ppm - STEL
ACGIH TLV 2.000 ppm - TWA
ACGIH TLV 4.000 ppm - STEL

WATER (7732-18-5)
No exposure limits established

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for product) 180.0 F (82.2 C) @ 760 mmHg

Vapor Pressure

(for component) 17.500 mmHg @ 68.00 F

Specific Vapor Density

1.300 @ AIR=1

Specific Gravity

1.412 @ 68.00 F

Liquid Density

11.760 lbs/gal @ 68.00 F
1.412 kg/l @ 20.00 C

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Percent Volatiles

100.0 %

Evaporation Rate

SLOWER THAN ETHYL ETHER

Appearance

No data

State

LIQUID

Physical Form

HOMOGENEOUS SOLUTION

Color

CLEAR, COLORLESS, PUNGENT

Odor

No data

pH

< 1.0

10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: nitrogen oxides.

Chemical Stability

Stable.

Incompatibility

Avoid contact with: organic materials, reducing agents, strong alkalies, Acid reacts with most metals to release hydrogen gas which can form explosive mixtures with air.

11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information

For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution Company, IC&S Environmental Services Group at 800-637-7922.

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14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:
 NITRIC ACID,8,UN2031,II

Container/Mode:
 55 GAL DRUM/TRUCK PACKAGE

NOS Component:
 None

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs)	Component
1429	NITRIC ACID

Other Transportation Information

The DOT Transport Information may vary with the container and mode of shipment.

15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4(a)

Component	RQ (lbs)
NITRIC ACID	1000

SARA 302 Components - 40 CFR 355 Appendix A

Section 302 Component(s)	TPQ (lbs)	RQ (lbs)
NITRIC ACID	1000	1000

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed(X) Fire(X) Reactive() Sudden Release of Pressure()

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number	%
NITRIC ACID	7697-37-2	70.00

OSHA Process Safety Management 29 CFR 1910

PSM Component (s)	Condition	TQ (lbs)
NITRIC ACID	94.5% by weight or	500

EPA Accidental Release Prevention 40 CFR 68

RMP Component (s)	Condition	TQ (lbs)
NITRIC ACID	conc. 80% or great	15000

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International Regulations

Inventory Status

Not determined

State and Local Regulations

California Proposition 65

None

New Jersey RTK Label Information

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Pennsylvania RTK Label Information

NITRIC ACID

7697-37-2

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.