

PURITAN PRODUCTS INC -- NITRIC ACID 50 - 70% -- 6810-00-236-5670

===== Product Identification =====

Product ID:NITRIC ACID 50 - 70%

MSDS Date:01/04/1999

FSC:6810

NIIN:00-236-5670

Status Code:A

MSDS Number: CJLLX

=== Responsible Party ===

Company Name:PURITAN PRODUCTS INC

Address:2290 AVENUE A

City:BETHLEHEM

State:PA

ZIP:18017

Country:US

Info Phone Num:610-866-4225

Emergency Phone Num:610-866-4225

Chemtrec Ind/Phone:(800)424-9300

CAGE:0TG10

=== Contractor Ident

ification ===

Company Name:PURITAN PRODUCTS INC

Address:2290 AVENUE A

Box:City:BETHLEHEM

State:PA

ZIP:18017

Country:US

Phone:610-866-4225

Contract Num:SP0450-99-M-NA25

CAGE:0TG10

===== Composition/Information on Ingredients =====

Ingred Name:NITRIC ACID

CAS:7697-37-2

RTECS #:QU5775000

Minumum % Wt:65.

Maxumum % Wt:70.

Other REC Limits:NONE RECOMMENDED

OSHA PEL:5 MG/M3;2 PPM

OSHA STEL:4 PPM

ACGIH TLV:5.2 MG/M3;2 PPM

ACGIH STEL:10 MG/M3;4 PPM

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:10

00 LBS

Ingred Name:WATER

CAS:7732-18-5

RTECS #:ZC0110000

Minumum % Wt:30.

Maxumum % Wt:35.

Other REC Limits:NONE RECOMMENDED

===== Hazards Identification =====

LD50 LC50 Mixture:INHALATION RAT LC50: 244 PPM (NO2)/30M

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:TARGET ORGANS: N/P. EYES, SKIN,  
RESPIRATORY SYSTEM, TEETH (NIOSH). ACUTE - POISON! DANGER! STRONG  
OXIDIZER, CORROSIVE!. INHALATION OF VAPORS CAN RESULT

IN BREATHING

DIFFICULTIES AND LEAD TO PNEUMONIA AND PULMONARY EDEMA, WHICH MAY  
BE FATAL. VAPORS ARE IRRITATING AND MAY CAUSE DAMAGE TO EYES. MAY  
CAUSE SEVERE BURNS AND PERMANENT EYE DAMAGE. CAN CAUSE SEVERE SKIN  
BURNS, DEEP ULCERS AND STAIN SKIN A YELLOW OR YELLOW-BROWN COLOR.  
SWALLOWING NITRIC ACID CAN CAUSE IMMEDIATE PAIN AND BURNS OF THE  
MOUTH, THROAT, ESOPHAGUS AND GASTROINTESTINAL TRACT. CHRONIC -  
VAPORS MAY CAUSE EROSION OF TEETH AND LU NG DAMAGE.

Explanation

of Carcinogenicity:NONE

Effects of Overexposure:BREATHING DIFFICULTIES, IRRITATING TO EYES,  
SEVERE EYE BURNS AND PERMANENT EYE DAMAGE, SEVERE SKIN BURNS, DEEP  
ULCERS AND YELLOW OR YELLOW-BROWN COLOR STAIN, IMMEDIATE PAIN AND  
BURNS OF THE MOUTH, THR OAT, ESOPHAGUS AND GASTROINTESTINAL TRACT,  
EROSION OF TEETH

Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN  
DISORDERS, EYE DISEASE, OR CARDIOPULMONARY DISEASES MAY BE MORE  
SUSCEPTIBLE TO THE EFFECTS OF THIS S  
UBSTANCE.

===== First Aid Measures =====

First Aid:INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE  
ARTIFIVIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.  
CALL PHYSICIAN. EYE CONTACT: IMMEDIATELY FLUSH EYES WITH PLENTY OF  
WATER FOR AT LEAST15 MINUTES, LIFTING LOWER AND UPPER EYELIDS  
OCCASIONALLY. GET MEDICAL ATTENTION IMMEDIATELY. SKIN CONTACT:  
IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES  
WHIL

E REMOVING CONTAMINATED CLOTHING AND SHOES. GET MEDICAL ATTENTION IMMEDIATELY. INGESTION: DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES OF WATER OR MILK IF AVAILABLE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.

===== Fire Fighting Measures =====

Flash Point:NONE

Extinguishing Media:WATER SPRAY MAY BE USED TO KEEP FIRE EXPOSED CONTAINERS COOL. DO NOT GET WATER INSIDE CONTAINER.

Fire Fighting Procedures:

WEAR FULL PROTECTIVE CLOTHING AND NOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE PRESSURE DEMAND OR OTHER POSITIVE PRESSURE MODE.

Unusual Fire/Explosion Hazard:NOT COMBUSTIBLE, BUT SUBSTANCE IS A STRONG OXIDIZER. REACTS EXPLOSIVELY WITH COMBUSTIBLE ORGANIC OR READILY OXIDIZABLE MATERIALS SUCH AS ALCOHOLS, TURPENTINE, CHARCOAL. ORGANIC REFUSE, METAL POWDER, HYDROGEN SULFIDE, ETC. REACTS WITH MOST METALS TO RELEASE HYDROGEN GAS WHICH CAN FORM EXPLOSIVE MIXTURES WITH AIR.

===== Accidental Release Measures =====

Spill Release Procedures:VENTILATE AREA OF LEAK OR SPILL. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT. ISOLATE HAZARD AREA. KEEP UNPROTECTED PERSONNEL AWAY. CONTAIN AND RECOVER LIQUID WHEN POSSIBLE. NEUTRALIZE WITH SODA ASH OR LIME. THEN ABSORB WITH VERMICULITE, DRY SAND, OR EARTH, AND PLACE IN A CHEMICAL WASTE CONTAINER. DO NOT USE COMBUSTIBLE MATERIALS. DO NOT FLUSH TO SEWER.

REPORT IF SPILL > RQ TO NRC 800-424-8802.

Neutralizing Agent:SODA ASH, LIME

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN A COOL, DRY, VENTILATED AREA WITH ACID RESISTANT FLOORS AND GOOD DRAINAGE. PROTECT FROM PHYSICAL DAMAGE. KEEP OUT OF DIRECT SUNLIGHT AND AWAY FROM HEAT, WATER AND INCOMPATIBLE MATERIALS. DO NOT WASH OUT CONTAINER AND USE IT FOR OTHER PURPOSES. NEVER USE HOT WATER

R AND NEVER ADD WATER TO ACID

Other Precautions:WATER ADDED TO ACID CAN CAUSE UNCONTROLLED BOILING AND SPLASHING. WHEN DILUTING, ACID SHOULD ALWAYS BE ADDED TO WATER AND IN SMALL AMOUNTS. CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTY SINCE THEY RETAIN PRODUCT RESIDUES (VAPORS, LIQUID); OBSERVE ALL WARNINGS AND PRECAUTIONS LISTED FOR THE PRODUCT.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:IF THE EXPOSURE LIMIT IS EXCEEDED, WEAR A

SUPPLIED AIR, FULL-FACEPIECE RESPIRATOR, AIRLINED HOOD, OR FULL-FACEPIECE SELF-CONTAINED BREATHING APPARATUS. NITRIC ACID IS AN OXIDIZER AND SHOULD NOT COME IN CONTACT WITH CARTRIDGES AND CANISTERS THAT CONTAIN OXIDIZABLE MATERIALS SUCH AS ACTIVATED CHARCOAL. CANISTER-TYPE RESPIRATORS USING SORBENTS ARE INEFFECTIVE.

Ventilation:A SYSTEM OF LOCAL AND/OR GENERAL EXHAUST IS RECOMMENDED TO KEEP EMPLOYEE EXPOSURES BELOW THE AIRBORNE EXPOSURE LIMITS. LOCAL EXHAUST IS PREFERRED.

Protective Gloves:IMPERVIOUS

Eye Protection:CHEMICAL SAFETY GOGGLES AND/OR A FULL FACE SHIELD

Other Protective Equipment:MAINTAIN EYE WASH FOUNTAIN AND QUICK-DRENCH FACILITIES IN WORK AREA. WEAR IMPERVIOUS PROTECTIVE CLOTHING. INCLUDING BOOTS, GLOVES, LAB COAT, APRON OR COVERALLS AS APPROPRIATE, TO PREVENT SKIN CONTACT.

Work Hygienic Practices:N/P. OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. WASH AFTER HANDLING AND BEFORE EATING, DRINKING OR SMOKING (HMIS).

Supplemental Safety and Health

NOT COMBUSTIBLE, BUT SUBSTANCE IS A STRONG OXIDIZER AND ITS HEAT OF REACTION WITH REDUCING AGENTS OR COMBUSTIBLES MAY CAUSE IGNITION. CAN REACT WITH METALS TO RELEASE FLAMMABLE HYDROGEN GAS.

===== Physical/Chemical Properties =====

HCC:C1

Boiling Pt:122.2C, 252.F

Melt/Freeze Pt:-42.2C, -44.F

Vapor Pres:48 @ 20C

Vapor Density:2-3

Spec Gravity:1.41

pH:1.0

Evaporation Rate & Reference:NO INFO FOUND

Solu

bility in Water:INFINITELY SOLUBLE

Appearance and Odor:COLORLESS TO YELLOWISH LIQUID, SUFFOCATING, ACRID  
ODOR.

Percent Volatiles by Volume:100

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

A DANGEROUS POWERFUL OXIDIZING AGENT, CONCENTRATED NITRIC ACID IS  
INCOMPATIBLE WITH MOST SUBSTANCES. ESPECIALLY STRONG BASES,  
METALLIC POWDERS, CARBIDES, HYDROGEN SULFIDE, TURPENTINE AND  
COMBUSTIBLE ORGANICS.

Stability Condition

to Avoid:CONTAINERS MAY BURST WHEN HEATED.

Hazardous Decomposition Products:WHEN HEATED TO DECOMPOSITION, EMITS  
TOXIC NITROGEN OXIDES FUMES AND HYDROGEN NITRATE. WILL REACT WITH  
WATER OR STEAM TO PRODUCE HEAT AND TOXIC AND CORROSIVE FUMES..

Conditions to Avoid Polymerization:WILL NOT OCCUR.

===== Toxicological Information =====

Toxicological Information:ORAL (HUMAN) LDLO: 430 MG/KG.

===== Ecological Information =====

Eco

logical:NO INFORMATION FOUND.

===== Disposal Considerations =====

Waste Disposal Methods:WATEVER CANNOT BE SAVED FOR RECOVERY OR  
RECYLCLING SHOULD BE MANAGED IN AN APPROPRIATE AND APPROVED WASTE  
FACILITY. ALTHOUGH NOT A LISTED RCRA HAZARDOUS WASTE, THIS MATERIAL  
MAY EXHIBIT ONE OR MORE CH ARACTERISTICS OF A HAZARDOUS WASTE.  
STATE AND LOCAL DISPOSAL REGULATIONS MAY DIFFER FROM FEDERAL REG  
ULATIONS.

===== Regulatory Informatio  
n =====

SARA Title III Information:NITRIC ACID: CERCLA RQ: 1000 LBS; TPQ: 1000  
LBS; LISTED ON SARA 313. SECTION 311/312: ACUTE: YES, CHRONIC: YES,  
FIRE: YES.

Federal Regulatory Information:THIS PRODUCT IS LISTED ON THE TOXIC  
SUBSTANCE CONTROL ACT (TSCA) INVENTORY OF CHEMICAL SUBSTANCES.

===== Other Information =====

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