

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 Identification ===
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 P

PM
ACGIH STEL:10 MG/M3;4 PPM
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 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! S
TRONG

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 CARDIOPULMONA
RY DISEASES MAY BE MORE
SUSCEPTIBLE TO THE EFFECTS OF THIS SUBSTANCE.

===== 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
WHILE 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
CONT

AINERS 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, HYDRO

GEN 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 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 =====
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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 PROTECTIE 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 RECOMMEND
ED 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
Solubility 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 SULFI
DE, 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.

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

Ecological: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 Information =====

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 =====

Disclaimer (provided with this information by t

he compiling agencies):

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