

PURITAN-BENNET CORPORATION -- CARBON DIOXIDE, CARBONIC ACID, CARBONIC ANHYDRIDE
-- 8120-00-595-3698

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

Product ID:CARBON DIOXIDE, CARBONIC ACID, CARBONIC ANHYDRIDE

MSDS Date:09/01/1987

FSC:8120

NIIN:00-595-3698

Status Code:A

MSDS Number: CLJSR

=== Responsible Party ===

Company Name:PURITAN-BENNET CORPORATION

Address:10800 PFLUMM ROAD

City:LENEXA

State:KS

ZIP:66215

Country:US

CAGE:LO651

=== Contractor Identification ===

Company Name:PURITAN-BENNET CORPORATION

Address:10800 PFLUMM ROAD

Box:City:LENEXA

State:KS

ZIP:66215

Country:US

CAGE:LO651

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

Ingred Name:CARBON DIOXIDE

CAS:124-38-9

RTECS #:FF6400000

= Wt:99.5

OSHA PEL:5000 PPM

ACGIH TLV:9000 MG/M3;5000 PPM

ACGIH STEL:54000 MG/M3

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

LD50 LC50 Mixture:NO DATA PROVIDED BY MA

MANUFACTURER

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

Health Hazards Acute and Chronic:HEADACHE, DIZZINESS, SHORTNESS OF BREATH, RESPIRATORY STIMULATION. CONCENTRATIONS ABOVE 17% ARE LIFE THREATENING

Explanation of Carcinogenicity:NOT LISTED IN NTP OR IARC, NOT REGULATED AS A CARCINOGEN BY OSHA.

Effects of Overexposure:HEADACHE, DIZZINESS, SHORTNESS OF BREATH, RESPIRATORY STIMULATION. CONCENTRATIONS ABOVE 17% ARE LIFE THREATENING

Medical Cond Aggravated by Exposure:
NO DATA PROVIDED BY MANUFACTURER

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

First Aid:REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED, ADMINISTER ARTIFICIAL RESPIRATION. OBTAIN PROMPT MEDICAL ATTENTION. OBTAIN PROMPT MEDICAL ATTENTION

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

Extinguishing Media:NON-FLAMMABLE, WILL NOT SUPPORT COMBUSTION

Fire Fighting Procedures:KEEP CYLINDERS COOL WITH WATER SPRAY

Unusual Fire/Explosion Hazard:EXCESSIVE PRESSURE CAN BUILD UP DUE TO HEAT. CYLINDERS MAY EXPLODE IF PRESSURE RELIEF DEVICES SHOULD FAIL TO RELIEVE PRESSURE.

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

Spill Release Procedures:PROVIDE ADEQUATE VENTILATION TO MAINTAIN OXYGEN CONCENTRATION ABOVE 19.5% BY VOLUME. EMERGENCY PERSONNEL WILL REQUIRE SELF CONTAINED BREATHING APPARATUS IF OXYGEN CONCENTRATION IS BELOW 19.5% BY VOLUME. CARBON DIOX

IDE GAS IS HEAVIER THAN AIR. GAS MAY ACCUMULATE AND DISPLACE OXYGEN IN LOW AREAS.

Neutralizing Agent:NO DATA PROVIDED BY MANUFACTURER

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

Handling and Storage Precautions:CYLINDERS SHOULD NOT BE DROPPED. KEEP PROPERLY SECURED OR PROTECTED TO PREVENT CYLINDERS FROM BEING KNOCKED OVER. MATERIAL CAN BE STORED OUTSIDE. TEMPERATURE SHOULD BE KEPT BELOW 125 DEG F.

Other Precautions:CYLINDERS SHOULD BE STORED UPRIGHT

WITH VALVE CAP IN

PLACE. CYLINDERS MUST NOT BE RECHARGED UNLESS BY OR WITH THE
CONSENT OF THE PURITAN-BENNETT CORPORATION.

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

Respiratory Protection:EMERGENCY PERSONNEL WILL REQUIRE SELF-CONTAINED
BREATHING APPARATUS IF OXYGEN CONCENTRATION IS BELOW 19.5% BY
VOLUME. CARBON DIOXDE GAS IS HEAVIER THAN AIR. GAS MAY ACCUMULATE
AND DISPLACE OXYGEN IN L OW AREAS.

Ventilation:PROVIDE ADEQUATE VENTILATION TO MAINTAIN
OXYGEN

CONCENTRATION ABOVE 19.5% BY VOLUME. LOCAL EXHAUST RECOMMENDED.

Protective Gloves:COTTON, LEATHER, OR NEOPRENE

Eye Protection:SAFETY GOGGLES OR GLASSES

Other Protective Equipment:SAFETY SHOES WHEN HANDLING CYLINDERS.

Work Hygienic Practices:NO DATA PROVIDED BY MANUFACTURER.

Supplemental Safety and Health

NO DATA PROVIDED BY MANUFACTURER.

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

HCC:G3

Boiling Pt:=-78.3C, -109.F

B.P. Text:(SUBLIMES)

Vapor Pres:839 PSIG @ 7

0 DEG F

Vapor Density:1.53(AIR=1

Evaporation Rate & Reference:GAS

Solubility in Water:1.713 CC/CC H2O @ 32 F

Appearance and Odor:COLORLESS, SLIGHT PUNGENT ODOR

Percent Volatiles by Volume:100%

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

Stability Indicator/Materials to Avoid:YES

FORM CARBONIC ACID WITH MOISTURE

Hazardous Decomposition Products:NONE

Conditions to Avoid Polymerization:WILL NOT OCCUR

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

Toxicological Information:NO DATA PROVIDED BY MANUFACTURER

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Ecological Information
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Ecological:NO DATA PROVIDED BY MANUFACTURER

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Disposal Considerations
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Waste Disposal Methods:SLOWLY VENT TO ATMOSPHERE IN OPEN AREA.

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MSDS Transport Information
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Transport Information:NO DATA PROVIDED BY MANUFACTURER

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Regulatory Information
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SARA Title III Information:NO DATA PROVIDED BY MANUFACTURER

Federal Regulatory Information:NO DATA PROVIDED BY MANUFACTURER

State Regulatory Information:NO DATA PROVIDED BY MANUFACTURER

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Other Information
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