

AGA GAS INC -- CALIBRATING GAS MIXTURE -- 6830-00-460-7704

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

Product ID:CALIBRATING GAS MIXTURE

MSDS Date:01/01/1995

FSC:6830

NIIN:00-460-7704

Status Code:A

MSDS Number: CJZVP

=== Responsible Party ===

Company Name:AGA GAS INC

Address:6225 OAKTREE BLVD

City:CLEVELAND

State:OH

ZIP:44131

Country:US

Info Phone Num:216-642-6600

Emergency Phone Num:216-642-6600

Resp. P

arty Other MSDS Num.:48

Preparer's Name:NOT PROVIDED.

CAGE:0KPC9

=== Contractor Identification ===

Company Name:AGA GAS INC

Address:6225 OAKTREE BLVD

Box:94737

City:CLEVELAND

State:OH

ZIP:44101-4737

Country:US

Phone:216-642-6600

CAGE:0KPC9

Company Name:AGA GAS INC

Address:6055 ROCKSIDE WOODS BLVD

Box:94737

City:CLEVELAND

State:OH

ZIP:44131-2329

Country:US

Phone:216-642-6652

Contract Num:SP0450-99-M-JB29

CAGE:1E6A1

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

Ingred Name

:CARBON MONOXIDE
CAS:630-08-0
RTECS #:FG3500000
Fraction by Wt: 40-50% PPM
Other REC Limits:NOT PROVIDED.
OSHA PEL:55 MG/M3;50 PPM
ACGIH TLV:29 MG/M3;25 PPM

Ingred Name:CARBON DIOXIDE
CAS:124-38-9
RTECS #:FF6400000
Minumum % Wt:1.2
Maxumum % Wt:1.5
Other REC Limits:NOT PROVIDED.
OSHA PEL:9000 MG/M3;5000 PPM
ACGIH TLV:9000 MG/M3;5000 PPM
ACGIH STEL:54000 MG/M3

Ingred Name:HYDROGEN
CAS:1333-74-0
RTECS #:MW8900000
Minumum % Wt:1.
Maxumum % Wt:1.2
Other REC Limits:NOT PROVIDED.
OSHA PEL:NO LISTING

ACGIH TLV:NO LISTING

Ingred Name:OXYGEN
CAS:7782-44-7
RTECS #:RS2060000
Minumum % Wt:20.
Maxumum % Wt:22.
Other REC Limits:NOT PROVIDED.
OSHA PEL:NONE LISTED
ACGIH TLV:NONE LISTED

Ingred Name:NITROGEN
CAS:7727-37-9
RTECS #:QW9700000
Fraction by Wt: BALANCE
Other REC Limits:NOT PROVIDED.
OSHA PEL:NONE LISTED
ACGIH TLV:NONE LISTED

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

LD50 LC50 Mixture:NOT PROVIDED.
Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO
Reports

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

Health Hazards Acute and Chronic:NOT PROVIDED FOR THE MIXTURE. HMIS:

INHALATION OF COMPRESSED AIR MAY CAUSE DECOMPRESSION SICKNESS.

SYMPTOMS MAY INCLUDE: HEADACHE, VOMITING, VISUAL DEFECTS, DEAFNESS.

Explanation of Carcinogenicity:NONE

Effects of Overexposure:NOT PROVIDED FOR THE MIXTURE. HMIS: INHALATION

OF COMPRESSED AIR MAY CAUSE DECOMPRESSION SICKNESS. SYMPTOMS MAY INCLUDE: HEADACHE, VOMITING, VISUAL DEFECTS, DEAFNESS.

Medical Cond

Aggravated by Exposure:NOT PROVIDED.

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

First Aid:NOT PROVIDED FOR THE MIXTURE. AIR IS ESSENTIAL FOR LIFE. IF ILL EFFECTS OCCUR, REMOVE TO FRESH AIR AND CALL A PHYSICIAN.

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

Extinguishing Media:NONFLAMMABLE GAS.

Fire Fighting Procedures:IF CYLINDERS ARE INVOLVED IN A FIRE, SAFELY RELOCATE OR KEEP COOL WITH WATER SPRAY.

Unusual Fire/Explosion Hazard:NONE

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

Spill Release Procedures:EVACUATE ALL PERSONNEL FROM AFFECTED AREA. USE APPROPRIATE PROTECTIVE EQUIPMENT. IF LEAK IS IN CONTAINER OR CONTAINER VALVE, CONTACT YOUR CLOSEST SUPPLIER LOCATION OR CALL THE EMERGENCY TELEPHONE NUMBER LISTED ON MSDS.

Neutralizing Agent:NOT RELEVANT.

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

Handling and Storage Precautions:STORE IN A COOL, DRY, WELL VENTILATED

AREA, AWAY FROM HEAVILY TRAFFICKED AREAS AND EMERGENCY EXITS. DO NOT ALLOW THE TEMPERATURE WHERE CYLINDERS ARE STORED TO EXCEED 125F (52C). CYLINDERS SHOULD BE STORED UPRIGHT AND FIRMLY SECURED.

Other Precautions:USE IN WELL-VENTILATED AREAS. VALVE PROTECTION CAPS MUST BE IN PLACE UNLESS CYLINDER IS SECURED WITH VALVE OUTLET PIPED TO USE POINT. DO NOT DRAG, SLIDE OR ROLL CYLINDERS. USE A SUITABLE HAND TRUCK FOR CYLINDER MOVEMENT. USE A PRESSURE REDUCING REGULATOR

WHEN CONNECTING CYLINDER TO LOWER PRESSURE.

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

Respiratory Protection:NOT PROVIDED FOR MIXTURE. HMIS: NONE REQUIRED.

Ventilation:ADEQUATE

Protective Gloves:ANY MATERIAL

Eye Protection:SAFETY GOGGLES OR GLASSES

Other Protective Equipment:SAFETY SHOES.

Work Hygienic Practices:NOT PROVIDED.

Supplemental Safety and Health

THE CONTRACTOR PROVIDED ONE MSDS FOR EACH GAS (CARBON MONOXIDE, CARBON DIOXIDE, HYDROGE, OXYGEN AND NITROGEN

). THE PRODUCT ID AND

PERCENTAGES ARE TAKEN FROM THE CONTRACTING TECHNICAL DATA FILE (CTDF).

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

HCC:G3

NRC/State Lic Num:NOT RELEVANT.

Boiling Pt:=-195.8C, -320.5F

B.P. Text:FOR NITROGEN

Melt/Freeze Pt:=-209.9C, -345.9F

M.P/F.P Text:FOR NITROGEN

Decomp Temp:Decomp Text:NOT PROVIDED.

Vapor Pres:NOT PROVIDED.

Vapor Density:0.97 (N2)

Spec Gravity:0.0725 LB/FT3

pH:NOT RELEVANT.

Viscosity:NOT RELEVANT.

Evaporation Rate &

Reference:N/A (GAS)

Solubility in Water:VERY SLIGHTY (N2)

Appearance and Odor:COLORLESS, ODORLESS GAS.

Percent Volatiles by Volume:100 (GAS)

Corrosion Rate:NOT RELEVANT.

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

Stability Indicator/Materials to Avoid:YES

NONE

Stability Condition to Avoid:NONE (FOR NITROGEN)

Hazardous Decomposition Products:NONE

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

Toxicological Information:NOT PROVIDED.

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==== Ecological Information =====

Ecological:NOT PROVIDED.

==== Disposal Considerations =====

Waste Disposal Methods:DO NOT ATTEMPT TO DISPOSE OF WASTE OR UNUSED QUANTITIES. RETURN IN THE SHIPPING CONTAINER PROPERLY LABELED, WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE TO YOUR SUPPLIER. FOR EMERGENCY DISPOSAL ASSISTANCE, CONTACT YOUR CLOSEST SUPPLIER LOCATION OR CALL THE EMERGENCY TELEPHONE NUMBER LISTED ON MSDS.

==== MSDS Transport Information =====

Transport Information:NOT PROVIDED FOR THE MIXTURE.

==== Regulatory Information =====

SARA Title III Information:NOT PROVIDED FOR THE MIXTURE.
Federal Regulatory Information:NOT PROVIDED FOR THE MIXTURE.
State Regulatory Information:NOT PROVIDED FOR THE MIXTURE.

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