

AIRGAS INC -- NON-FLAMMABLE GAS MIXTURE -- 6665-01-214-8247

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

Product ID:NON-FLAMMABLE GAS MIXTURE

MSDS Date:04/22/2001

FSC:6665

NIIN:01-214-8247

Status Code:A

MSDS Number: CLCVT

=== Responsible Party ===

Company Name:AIRGAS INC

Address:259 RADNOR-CHESTER RD SUITE 100

City:RADNOR

State:PA

ZIP:19087-5240

Country:US

Info Phone Num:1-610-687-5253

Emergency Phone Num:8

00-949-7937

Resp. Party Other MSDS Num.:DOCUMENT NUMBER: 002103

CAGE:UO451

=== Contractor Identification ===

Company Name:AIRGAS INC

Address:259 RADNOR-CHESTER RD SUITE 100

Box:City:RADNOR

State:PA

ZIP:19087-5240

Country:US

Phone:1-610-687-5253

CAGE:UO451

Company Name:KAMPI COMPONENTS CO., INC.

Address:210 RT 13

Box:721

City:BRISTOL

State:PA

ZIP:19007-3517

Country:US

Phone:215-736-2000

Contract Num:SP0440-00-M-JA63

CAGE:7Z016

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

Ingred Name:ISOBUTYLENE
CAS:115-11-7
RTECS #:UD0890000
Fraction by Wt: 1PPM-1.7%

Ingred Name:AIR (CAS# 7727-37-9, NITROGEN 79% AND CAS# 7782-44-7,
OXYGEN 21%)
CAS:25635-88-5
Fraction by Wt: BALANCE

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

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:ACUTE: THE MOST SIGNIFICANT HAZARD
ASSOCIATED WITH COMPRESSED AIR IS THE PRESSURE HAZARD. CONTACT WITH
RAPIDLY EXPANDING GASES (WHI
CH ARE RELEASED UNDER HIGH PRESSURE)
MAY CAUSE FROSTBITE. SYMPTOMS OF FROSTBITE INCLUDE CHANGE IN SKIN
COLOR TO WHITE OR GRAYISH-YELLOW. THE PAIN AFTER CONTACT WITH
LIQUID CAN QUICKLY SUBSIDE. CHRONIC: NO KNOWN ADVERSE HEALTH
EFFECTS ASSOCIATED WITH CHRONIC EXPOSURE T O THIS GAS. TARGET
ORGANS: RESPIRATORY SYSTEM, UNDER AMBIENT LOWPRESSURE AND CENTRAL
NERVOUS SYSTEM UNDER AMBIENT HIGH PRESSURE CONDITIONS. CHRONIC:
NONE EXPECTED.

Explanation of Carcinogenicity:NO COM
PONENT OF THIS GAS MIXTURE IS
FOUND ON THE FOLLOWING LISTS: FEDERAL OSHA Z LIST, NTP, IARC,
CAL/OSHA, AND THEREFORE IS NEITHER CONSIDERED TO BE NOR SUSPECTED
TO BE A CANCER-CAUSING AGENT BY THES E AGENCIES.

Effects of Overexposure:INHALATION: THIS PRODUCT IS NON-TOXIC. AIR, THE
MAIN COMPONENT OF THIS PRODUCT, IS NECESSARY FOR LIFE.

Medical Cond Aggravated by Exposure:ACUTE OR CHRONIC RESPIRATORY
CONDITIONS, AS WELL AS DISORDERS INVOLVING THE "TARGET ORGANS" MAY
BE AGGRAVA
TED BY OVEREXPOSURE TO THE COMPONENTS OF THIS PRODUCT.

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

First Aid:RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE
TO THIS PRODUCT WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. AT
A MINIMUM, SELF-CONTAINED BREATHING APPARATUS EQUIPMENT SHOULD BE
WORN. VICTIMS) MUST BE TAKEN FOR MEDICAL ATTENTION. RESCUERS
SHOULD BE TAKEN FOR MEDICAL ATTENTION, IF NECESSARY. TAKE COPY OF
LABEL AND MSDS TO PHYD

ICIAN OR OTHER HEALTH PROFESSIONAL WITH
VICTIM. REMOVE VI CTIMS TO FRESH AIR. EYE CONTACT: FLUSH EYES WITH
WATER FOR AT LEAST 15 MINUTES. IF NOT BREATHING, GIVE (CONTD. SEE
OTHER INFORMATION)

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

Flash Point:NA

Autoignition Temp:Autoignition Temp Text:NA

Lower Limits:NA

Upper Limits:NA

Extinguishing Media:NON-FLAMMABLE GAS. USE EXTINGUISHING MEDIA
APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures:STRUCT

URAL FIREFIGHTERS MUST WEAR

SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE EQUIPMENT.
MOVE FIRE-EXPOSED CYLINDERS FROM AREA, IF POSSIBLE WITHOUT RISK TO
FIRE-FIGHTERS. WITHDRAW IMMEDIATE LY IN CASE OF RISING SOUNDS FROM
VENTING PRESSURE RELIEF DEVICES OR ANY DISCOLORATION OF TANKS OR
CYLINDERS DUE TO FIRE.

Unusual Fire/Explosion Hazard:WHEN INVOLVED IN A FIRE, THIS MATERIAL

MAY IGNITE AND PRODUCE TOXIC GASES, INCLUDING CARBON MONOXIDE AND
CARBON DIOXIDE. ADDIT

IONAL, WHEN INVOLVED IN FIRE, THE CYLINDERS

MAY RUPTURE. NOT EXPLOSION SEN SITIVE TO MECHANICAL IMPACT OR TO
STATIC DISCHARGE.

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

Spill Release Procedures:UNCONTROLLED RELEASES SHOULD BE COVERED BY
TRAINED PERSONNEL USING PRE-PLANNED PROCEDURES. PROPER PROTECTIVE
EQUIPMENT SHOULD BE USED. MINIMUM PERSONAL PROTECTIVE EQUIPMENT
SHOULD BE LEVEL D: SAFETY G LASSES, MECHANICALLY-RESISTANT GLOVES.
LEVEL B, WHI

CH INCLUDES USE OF SCABA, SHOULD BE WORN WHEN OXYGEN IS

BELOW 19.5% OR UNKNOWN. STOP RELEASE OF LEAKING GAS. IF NOT (CONTD.
SEE "WASTE DISPOSAL")

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

Handling and Storage Precautions:STORE IN COOL(< 125F), DRY,

WELL-VENTILATED, FIREPROOF AREA AWAY FROM FLAMMABLE OR COMBUSTIBLE
MATERIALS AND CORROSIVE ATMOSPHERE. STORE AWAY FROM HEAT, IGNITION
SOURCES,AND OUT OF DIRECT SUNLIGHT. S TORE CYLINDERS UPRIGHT AND

FIRMLY SECURED FROM FALLING. MOVE CYLINDERS WITH SUITABLE HAND-TRUCK.

Other Precautions:DO NOT DRAG, ROLL, DROP, STRIKE EACH OTHER. DO NOT HEAT CYLINDER OR USE OILS OR GREASE ON GAS-HANDLING FITTINGS OR EQUIPMENT. USE DESIGNATED CGA FITTINGS. DO NOT USE ADAPTERS. USE CHECK VALVE OR TRAP IN DISCHARGE LINE.

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

Respiratory Protection:MAINTAIN OXYGEN LEVELS ABOVE 19.5%.USE PROTECTION AUTHORIZED IN OSHA STANDARD 29 CFR 1910.134,APPLICABLE STATE REGULATIONS, OR CANADIAN CSA STANDARD Z94,4-93. OXYGEN LEVELS BELOW 19.5% ARE CONSIDERED IDLH BY OSHA. IN SUCH ATMOAPHERES USE A FULL-FACEPIECE PRESSURE/DEMAND SCABA OR FULL FACEPIECE,SUPPLIED AIR RESPIRATOR WITH AUXILIARY SELF-CONTAINED AIR SUPPLY.

Ventilation:USE WITH ADEQUATE VENTILATION.

Protective Gloves:WEAR MECHANICALLY-RESISTANT GLOVES WHEN HANDLING CYLINDERS.

Eye Protection:SPLASH GOGGLES , SAFETY GLASSES OR FACE-SHIELD..

Other Protec
tive Equipment:USE BODY PROTECTION APPROPRIATE FOR TASK. IF A HAZARD OF INJURY TO THE FEET EXISTS, ALSO USE FOOT PROTECTION AS DESCRIBED IN U.S. OSHA 29 CFR.

Work Hygienic Practices:DO NOT EAT OR DIRNK WHILE HANDLING CHEMICALS.

Supplemental Safety and Health

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

HCC:G3

Boiling Pt:=-194.3C, -317.7F

Melt/Freeze Pt:=-216.2C, -357.2F

Vapor Density:1

Spec Gravity:SPECIFIC VOL=13.3 FT3/LB

Solubility in Water:1.40% (V/V)

Appeara
nce and Odor:COLORLESS, ODORLESS GAS.

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

Stability Indicator/Materials to Avoid:YES

AIR IS NOT COMPATIBLE WITH FUELS, IN THAT AIR WILL SUPPORT COMBUSTION. ISOBUTYLENE COMPONENT OF THIS MIXTURE IS INCOMPATILE WITH STRONG OXIDIZERS (E.G., CHLORINE, BROMINE PENTAFLUORIDE, OXYGEN, OXYGEN DIFLUORIDE AND NITROGE

Stability Condition to Avoid:NORMALLY STABLE. CONTACT WITH INCOMPATIBLE MATERIALS AND EXPOSURE TO HEAT, SPARK

S, SOURCES OF IGNITION.

CYLINDERS EXPOSED TO HIGH TEMPERATURES OR DIRECT FLAME CAN RUPTURE OR BURST.

Hazardous Decomposition Products:NONE KNOWN.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Toxicological Information:FOLLOWING DATA ARE FOR COMPONENTS OF MIXTURE

AT LEVEL GREATER THAN 1 MOLE %. ISOBUTYLENE: LC50 (RAT, INHALATION): 620 G/M3/ 4 HOURS; LC50 (MOUSE, INHALATION): 415 G/M3/ 2 HOUR. ISOBUTYLENE

IS NOT FOUND ON FEDERAL OSHA Z LIST, NTP, IARC, CAL/OSHA, AND IS NEITHER CONSIDERED TO BE NOR SUSPECTED TO BE A CANCER-CAUSING AGENT BY THESE AGENCIES. CONTACT WITH RAPIDLY EXPANDING GASES CAN CAUSE FROSTBITE TO EXPOSED SKIN AND EYES. NO COMPONENT IS A SKIN OR RESPIRATORY SENSITIZER.PRODUCT IS NOT REPORTED TO CAUSE MUTAGENIC EFFECTS, NO EMBRYOTOXIC EFFECTS, NO TERATOGENIC EFFECTS, NO REPRODUCTIVE EFFECTS IN HUMANS.

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

Ecological:ENVIRONMENTAL STABILITY: THIS GAS WILL BE DISSIPATED RAPIDLY IN WELL-VENTILATED AREAS. EFFECTS OF MATERIAL ON PLANTS OR ANIMALS: NO ADVERSE EFFECT IS ANTICIPATED TO OCCUR TO PLANT LIFE, EXCEPT FOR FROST PRODUCED IN THE PRESENCE OF RAPIDLY EXPANDING GASES. EFFECT OF CHEMICAL ON AQUATIC LIFE: NO EVIDENCE OF AN ADVERSE EFFECT OF THIS PRODUCT ON AQUATIC LIFE IS CURRENTLY AVAILABLE.

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

Waste Disposal Methods:WASTE DISPOSAL MUST BE IN ACCORDANCE WITH APPROPRIATE FEDERAL, STATE, AND LOCAL REGULATIONS. RETURN CYLINDERS WITH ANY RESIDUAL PRODUCT TO AIRGAS INC. DO NOT DISPOSE OF LOCALLY. (CONTD. FROM "SPILL RELEASE") ABLE TO STOP RELEASE, ALLOW GAS TO RELEASE IN PLACE OR REMOVE TO A SAFE AREA AND ALLOW GAS TO RELEASE THERE.

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

Transport Information:THIS MATERIAL IS HAZARDOUS AS DEFINED BY 49

CFR

172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION. PROPER SHIPPING NAME: COMPRESSED GASES, N.O.S. (AIR, ISOBUTYLENE); CLASS 2.2 (COMPRESSED GAS); UN 1956 ; DOT LABEL REQUIRED: COMPRESSED GAS; NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2000): 126. CANADA: THIS GAS MIXTURE IS CONSIDERED AS DANGEROUS GOODS, PER REGULATIONS OF TRANSPORT CANADA. USE THE ABOVE INFORMATION FOR THE PREPARATION OF CANADIAN SHIPMENTS.

===== Regulatory Information =====

SARA Title III Information:THE COMPONENTS OF THIS GAS MIXTURE ARE NOT SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 302, 304, AND 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT. U.S. SARA THRESHOLD PLANNING QUANTITY:THERE ARE NO SPECIFIC THRESHOLD PLANNING QUANTITIES FOR THIS MATERIAL. THE DEFAULT FEDERAL MSDS SUBMISSION AND INVENTORY REQUIREMENT FILING THRESHOLD OF 10,000 LB (4,540KG) MAY APPLY, PER 40 CFR 370.20. U.

S. CERCLA
REPORTABLE QUANTITY (RQ): NOT APPLICABLE.

Federal Regulatory Information:THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY. OTHER U.S. FEDERAL REGULATIONS: NOT APPLICABLE. CANADIAN REGULATIONS: CANADIAN INVENTORY: COMPONENTS OF THIS PRODUCT ARE LISTED ON THE DSL INVENTORY. CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: COMPONENTS OF THIS PRODUCT ARE NOT ON THE CEPA PRIORITIES SUBSTANCES LISTS. CANADIAN WHMIS: CLASS

A: COMPRESSED GASES.

State Regulatory Information:CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): NO COMPONENT OF THIS PRODUCT IS ON THE CALIFORNIA PROPOSITION 65 LISTS. PRODUCT COVERED UNDER FOLLOWING STATE REGULATIONS: FL :SUBSTANCE LIST,ISOBUTYLENE; MN: LIST OF HAZARDOUS SUBSTANCES, ISOBUTYLENE; NJ: RIGHT TO KNOW HAZARDOUS SUBSTANCE LIST, ISOBUTYLENE; PA: HAZARDOUS SUBSTANCE LIST, ISOBUTYLENE.

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

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particular situation.