GARDEN GROVE

CITY OF GARDEN GROVE
FIRE DEPARTMENT

Tel: (714) 741-5600
Fax: (714) 741-5640

9/28/2017

Brittney Eugenio
Partner ESI

RE: Records Search for 10555 Stanford Ave., Garden Grove CA

Dear Brittney Eugenio:

Enclosed are the records found concerning the history of the above-mentioned site(s), especially as it pertains to fire code violation history, permits, the use, storage, or disposal of hazardous substances, and the installation or removal of underground flammable or combustible liquid storage tanks.

The City of Garden Grove Fire Department has utilized its best efforts to locate the records requested. However, the City makes no representation as to the accuracy of the records or that all records requested were retained or located. The City does not provide records on spills, leaks or clean-up, as that information is provided through the County of Orange Health Dept.

Sincerely,

Brad Spell
Fire Captain/Senior Fire Protection Specialist

Violation List for
PASS PRECISION AIRPARTS
10555 STANFORD Ave

Date Issued	Date Cleared	Code #	Violation Description
08/01/2013	08/02/2013	HSC 25509	Chemical inventory is incomplete / requires update.
11/09/2010	11/09/2010	CFC 605.1	Provide/ replace electrical
08/06/2008	08/13/2008		Secure helium in electronic lab or remove entirely.
07/23/2007	08/06/2007	CFC 1103.3.3	Lower storage- 2' from ceiling above test room (box) electronic room
07/23/2007	08/06/2007	CFC8509.2	Provide / replace electrical cover - edc test cell ceiling.
09/25/2006	10/31/2006	1103.3.3.2	Lower storage 2' from ceiling.
09/25/2006	10/09/2006	1103.3.3.2	Provide approved safety containers for flammable liquids.
09/25/2006	10/02/2006	7902.5.9	Provide approved cabinet if more than 10 gal. flammable liquids.
09/25/2006	10/31/2006	7902.1	Complete Hazardous Materials Disclosure Packet - due end of Oct.
09/25/2006	10/02/2006	8509.2	Provide/replace electrical cover - outdoor wiring, no extensions - aut
09/25/2006	10/31/2006	902.2.4.1	Remove obstructions to fire apparatus access.
09/25/2006	10/31/2006	902.4	Provide outside Knox Box (Ken)
09/25/2006	10/02/2006	1203	Remove exit obstruction
09/25/2006	10/02/2006	1207.3	Remove locks, chains, bolts or bars from exit door.
09/25/2006	10/31/2006	8001.7	Provide hazardous materials warning signs.
08/10/2004	08/31/2004	8506	Remove all extension cords throughout rooms.

REVISED 3-2002

GARDEN GROVE

FIRE DEPARTMENT

HAZARDOUS MATERIALS DISCLOSURE PROGRAM

REPORTING FORMS PACKET PART 1

FOR OFFICIAL USE ONLY

FACILITY ID NO. 427

BUSINESS NAME PASS

APPROVED BY: MK DATE: 01-10-07

NEW BUSINESS NO UPDATE YES

FEE 1 2 3 4 5 6

PICK __ 4D X BUSLIST __ CALARP: __ CUPA: __ GIS __

CITY OF GARDEN GROVE FIRE DEPARTMENT

11301 Acacia Parkway, Garden Grove, CA 92842 (714) 741-5600 (714) 741-5636

FORM 1

Hazardous Materials Business Information Form

Page __ of __ 3

BUSINESS INFORMATION

FACILITY # (Supplied by GGFD) 3 0 [redacted] 0 3 5 [redacted]	BEGINNING DATE 1: 11-29-06	ENDING DATE 2:	
BUSINESS NAME 4: PRECISION AIRPARTS SUPPORT SERVICES, INC.		BUSINESS PHONE 5: 714-534-1541	
BUSINESS SITE ADDRESS 6: 10555 STANFORD AVENUE			
CITY 7: GARDEN GROVE	STATE 8: CA	ZIP 9: 92840	
DUN & BRADSTREET 10: 03-288-0767	SIC CODE (4 DIGIT #) 11: 7699	FIRE DISTRICT 12: 2421	
COUNTY 13: ORANGE			
BUSINESS OPERATOR NAME 14: DON CLARK		OPERATOR'S PHONE 15: 714-534-1541	

BUSINESS OWNER

OWNER NAME 16: DON CLARK		OWNER PHONE 17: 714-534-1541
OWNER MAILING ADDRESS 18: 10555 STANFORD AVENUE		
CITY 19: GARDEN GROVE	STATE 20: CA	ZIP 21: 92840

ENVIRONMENTAL CONTACT

CONTACT NAME 22: KEN ROBERTSON		CONTACT PHONE 23: 909-986-0485
CONTACT MAILING ADDRESS 24: 432 EAST 5th STREET		
CITY 25: ONTARIO	STATE 26: CA	ZIP 27: 91764

EMERGENCY CONTACTS

PRIMARY	SECONDARY
NAME 28: DON CLARK	NAME 33: FRED BIANCHI
TITLE 29: OWNER / PRESIDENT	TITLE 34: STORES MANAGER
BUSINESS PHONE 30: 714-534-1541	BUSINESS PHONE 35: 714-534-1541
24-HR. PHONE 31: [redacted]	24-HR. PHONE 36: [redacted]
PAGER # 32: NONE	PAGER # 37: NONE

ADDITIONAL LOCALLY COLLECTED INFORMATION

DESCRIBE THE TYPE OF BUSINESS OPERATION: 38: REPAIR AIRCRAFT APPLIANCES		TOTAL # OF EMPLOYEES 39: 21
BILLING ADDRESS (IF DIFFERENT FROM ABOVE) 40: SAME		ATTENTION 41: DON CLARK
PROPERTY OWNER NAME 42: DON CLARK	ADDRESS 43: 10555 STANFORD AVENUE GG, CA 92840	PHONE 44: 714-534-1541

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE 45: Don Clark	DATE 46: 11/29/2006
NAME OF SIGNER *(print)* 47: DON CLARK	NAME OF DOCUMENT PREPARER *(print)* 49: DON CLARK
TITLE OF SIGNER 48: PRESIDENT	TITLE OF DOCUMENT PREPARER 50: PRESIDENT

haz-mtl-bus doc 3-13-02

HAZARDOUS MATERIALS INVENTORY FORM

FORM 3

☒ ADD ☐ DELETE ☐ REVISED 1 Page _____ of _____ 2

FACILITY ID # 3 0 0 3 5 BUSINESS NAME 3: Precision Airparts Support Services, Inc.

I. FACILITY INFORMATION

CHEMICAL LOCATION 4: On Cart In Grinding Room

CONFIDENTIAL LOCATION EPCRA ☐ Yes ☒ No 5 | MAP # 6: One | GRID # 7: 8.1 X J.9

II. CHEMICAL INFORMATION

CHEMICAL NAME: Acetylene | WASTE ☐ Yes 8 | TRADE SECRET ☐ Yes ☒ No 11 (* If EPCRA see instructions)

COMMON NAME 9: Acetylene | An EHS Chemical ☐ Yes ☒ No 12 (*If EHS is "Yes", all amounts must be LBS)

CAS # 10: 74-86-2 | FIRE CODE HAZARD CLASSES (supplied by GGFD) 13

TYPE OF MIXTURE: ☒ a. PURE ☐ b. MIXTURE ☐ c. WASTE 14 | RADIOACTIVE ☐ Yes ☒ No 15 | CURIES 16

PHYSICAL STATE OF CHEMICAL: ☐ a. SOLID ☐ b. LIQUID ☒ c. GAS 17 | FIRE HAZARD CATEGORIES: ☒ a. FIRE ☒ b. REACTIVE ☒ c. PRESSURE RELEASE 18 ☐ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH

AVERAGE DAILY AMOUNT 19	MAXIMUM DAILY AMOUNT 20	ANNUAL WASTE AMOUNT 21	STATE WASTE CODE 22
145	145	0	

UNITS: ☐ a. GALLONS ☒ b. CUBIC FEET 23 ☐ c. POUNDS ☐ d. TONS (*If EHS, amount must be in pounds.)

DAYS ON SITE 24: 365 | LARGEST CONTAINER 25: 145 CU. FT.

STORAGE CONTAINER TYPE (Check all that apply) 26:

☐ a. ABOVEGROUND TANK	☐ e. PLASTIC DRUM	☐ i. VAT	☒ m CYLINDER	☐ q. TANK WAGON
☐ b. UNDERGROUND TANK	☐ f. NONMETALLIC DRUM	☐ i. FIBER DRUM	☐ n. GLASS CONTAINER	☐ r. RAIL CAR
☐ c. TANK INSIDE BLDG	☐ g. METAL CONTAINER	☐ i. BAG(S)	☐ o PLASTIC CONTAINER	☐ s. TOTE BIN
☐ d STEEL DRUM	☐ h. CARBOY	☐ i. BOX(S)	☐ p. IN MACH OR EQUIP	☐ t. OTHER_____

STORAGE PRESSURE: ☐ a. AMBIENT ☒ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 27

STORAGE TEMPERATURE: ☒ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ d. CRYOGENIC 28

	%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1	29	30	☐ Yes ☐ No 31	32
2	29	30	☐ Yes ☐ No 31	32
3	29	30	☐ Yes ☐ No 31	32
4	29	30	☐ Yes ☐ No 31	32
5	29	30	☐ Yes ☐ No 31	32

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

PLACARDING INFORMATION

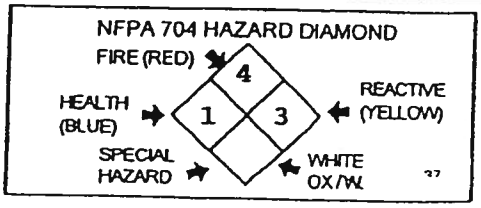
UNDOT # UN1001 33
Refer to shipping papers or MSDS

DOT HAZARD CLASS _____ 34
Refer to shipping papers or MSDS

EPCRA ☐ YES ☐ NO 35

X _____ 36
If EPCRA, Please Sign Here

NFPA 704 HAZARD DIAMOND



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HAZARDOUS MATERIALS INVENTORY FORM

FORM 3

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FACILITY ID 3 0 0 3 5 | BUSINESS NAME 3: Precision Airparts Support Services, Inc.

I. FACILITY INFORMATION

CHEMICAL LOCATION 4: Strapped to wall in grinding room

CONFIDENTIAL LOCATION EPCRA ☐ Yes ☒ No 5 | MAP # 6: One | GRID # 7: 8.1 X J.9

II. CHEMICAL INFORMATION

CHEMICAL NAME: Argon | WASTE ☐ Yes 8 | TRADE SECRET ☐ Yes ☒ No 11 (* If EPCRA see instructions)

COMMON NAME 9: Argon | An EHS Chemical ☐ Yes ☒ No 12 (*If EHS is "Yes", all amounts must be LBS)

CAS # 10: 7440-37-1 | FIRE CODE HAZARD CLASSES (supplied by GGFD) 13

TYPE OF MATERIAL 14: ☒ a. PURE ☐ b. MIXTURE ☐ c. WASTE | RADIOACTIVE ☐ Yes ☐ No 15 | CURIES 16

PHYSICAL STATE (AT NORMAL TEMPERATURE AND PRESSURE) 17: ☐ a. SOLID ☐ b. LIQUID ☒ c. GAS

PRIMARY HAZARD CATEGORIES 18: ☐ a. FIRE ☐ b. REACTIVE ☒ c. PRESSURE RELEASE ☒ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH

AVERAGE DAILY AMOUNT 19	MAXIMUM DAILY AMOUNT 20	ANNUAL WASTE AMOUNT 21	STATE WASTE CODE 22
281	281	0	

UNITS 23: ☐ a. GALLONS ☒ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS (*If EHS, amount must be in pounds.) | DAYS ON SITE 24: 365 | LARGEST CONTAINER 25: 281 CU. FT.

STORAGE CONTAINER (IF CHECK IT) 26: ☐ a. ABOVEGROUND TANK ☐ b. UNDERGROUND TANK ☐ c. TANK INSIDE BLDG ☐ d STEEL DRUM ☐ e. PLASTIC DRUM ☐ f. NONMETALLIC DRUM ☐ g. METAL CONTAINER ☐ h. CARBOY ☐ i. VAT ☐ l. FIBER DRUM ☐ l. BAG(S) ☐ l. BOX(S) ☒ m CYLINDER ☐ n. GLASS CONTAINER ☐ o PLASTIC CONTAINER ☐ p. IN MACH OR EQUIP ☐ q. TANK WAGON ☐ r. RAIL CAR ☐ s. TOTE BIN ☐ t. OTHER_____

STORAGE PRESSURE 27: ☐ a. AMBIENT ☒ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT

STORAGE TEMPERATURE 28: ☒ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ d. CRYOGENIC

	%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1	29	30	☐ Yes ☐ No 31	32
2	29	30	☐ Yes ☐ No 31	32
3	29	30	☐ Yes ☐ No 31	32
4	29	30	☐ Yes ☐ No 31	32
5	29	30	☐ Yes ☐ No 31	32

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

PLACARDING INFORMATION

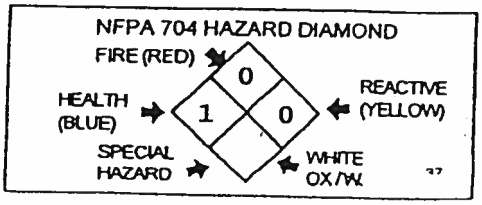
UNDOT # UN1006 33
Refer to shipping papers or MSDS

DOT HAZARD CLASS _____ 34
Refer to shipping papers or MSDS

EPCRA ☐ YES ☐ NO 35

X _____ 36
If EPCRA, Please Sign Here

NFPA 704 HAZARD DIAMOND



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HAZARDOUS MATERIALS INVENTORY FORM

FORM 3

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FACILITY ID# 3 0 0 3 5 BUSINESS NAME 3 **Precision Airparts Support Services, Inc.**

I. FACILITY INFORMATION

CHEMICAL LOCATION 4: On cart in grinding room

CONFIDENTIAL LOCATION EPCRA ☐ Yes ☒ No 5 | MAP # One 6 | GRID # 8.1 X J.9 7

II. CHEMICAL INFORMATION

CHEMICAL NAME: Helium, Compressed | WASTE ☐ Yes 8 | TRADE SECRET ☐ Yes ☒ No 11 (* If EPCRA see instructions)

COMMON NAME 9: Helium | An EHS Chemical ☐ Yes ☒ No 12 (*If EHS is "Yes", all amounts must be LBS)

CAS # 10: 7440-59-7 | FIRE CODE HAZARD CLASSES (supplied by GGFD) 13

TYPE (Check one box only) ☒ a. PURE ☐ b. MIXTURE ☐ c. WASTE 14 | RADIOACTIVE ☐ Yes ☒ No 15 | CURIES 16

PHYSICAL STATE (Check one box only) ☐ a. SOLID ☐ b. LIQUID ☒ c. GAS 17 | FIRE/HAZARD CATEGORIES ☐ a. FIRE ☐ b. REACTIVE ☒ c. PRESSURE RELEASE ☐ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 18

AVERAGE DAILY AMOUNT 19: 45 | MAXIMUM DAILY AMOUNT 20: 45 | ANNUAL WASTE AMOUNT 21 | STATE WASTE CODE 22

UNITS ☐ a. GALLONS ☒ b. CUBIC FEET 23 ☐ c. POUNDS ☐ d. TONS (*If EHS, amount must be in pounds.) | DAYS ON SITE 24: 365 | LARGEST CONTAINER 25: 45 CU. FT.

STORAGE CONTAINER (Check all that apply) 26:
☐ a. ABOVEGROUND TANK ☐ b. UNDERGROUND TANK ☐ c. TANK INSIDE BLDG ☐ d STEEL DRUM ☐ e. PLASTIC DRUM ☐ f. NONMETALLIC DRUM ☐ g. METAL CONTAINER ☐ h. CARBOY ☐ i. VAT ☐ I. FIBER DRUM ☐ I. BAG(S) ☐ I. BOX(S) ☒ m CYLINDER ☐ n. GLASS CONTAINER ☐ o PLASTIC CONTAINER ☐ p. IN MACH OR EQUIP ☐ q. TANK WAGON ☐ r. RAIL CAR ☐ s. TOTE BIN ☐ t. OTHER_____

STORAGE PRESSURE ☐ a. AMBIENT ☒ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 27

STORAGE TEMPERATURE ☒ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ d. CRYOGENIC 28

	%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1	29	30	☐ Yes ☐ No 31	32
2	29	30	☐ Yes ☐ No 31	32
3	29	30	☐ Yes ☐ No 31	32
4	29	30	☐ Yes ☐ No 31	32
5	29	30	☐ Yes ☐ No 31	32

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

PLACARDING INFORMATION

UNDOT # UN1046 33
Refer to shipping papers or MSDS

DOT HAZARD CLASS _____ 34
Refer to shipping papers or MSDS

EPCRA ☐ YES ☐ NO 35

X _____ 36
If EPCRA, Please Sign Here

NFPA 704 HAZARD DIAMOND
FIRE (RED) 0
HEALTH (BLUE) 0
REACTIVE (YELLOW) 0
SPECIAL HAZARD WHITE OX/W 37

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HAZARDOUS MATERIALS INVENTORY FORM

FORM 3

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FACILITY ID # 3 0 0 3 5 BUSINESS NAME 3: Precision Airparts Support Services, Inc.

I. FACILITY INFORMATION

CHEMICAL LOCATION 4: On containment pallet in center of test area

CONFIDENTIAL LOCATION EPCRA ☐ Yes ☒ No 5 | MAP # 6: one | GRID # 7: 6.3 X I.8

II. CHEMICAL INFORMATION

CHEMICAL NAME: Hydrocarbon | WASTE ☐ Yes 8 | TRADE SECRET ☐ Yes ☒ No 11 * If EPCRA see instructions

COMMON NAME 9: Jet Fuel, kerosene, jet A | An EHS Chemical ☐ Yes ☒ No 12 *If EHS is "Yes", all amounts must be LBS

CAS # 10: 8008-20-6 | FIRE CODE HAZARD CLASSES (supplied by GGFD) 13

TYPE (Check one only) ☐ a. PURE ☒ b. MIXTURE ☐ c. WASTE 14 | RADIOACTIVE ☐ Yes ☒ No 15 | CURIES 16

PHYSICAL STATE (Check one only) ☐ a. SOLID ☒ b. LIQUID ☐ c. GAS 17 | FIRE HAZARD CATEGORIES (Check all that apply) ☒ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE 18 ☒ d. ACUTE HEALTH ☒ e. CHRONIC HEALTH

AVERAGE DAILY AMOUNT 19: 55 | MAXIMUM DAILY AMOUNT 20: 110 | ANNUAL WASTE AMOUNT 21: 0 | STATE WASTE CODE 22

UNITS ☒ a. GALLONS ☐ b. CUBIC FEET 23 ☐ c. POUNDS ☐ d. TONS *If EHS, amount must be in pounds. | DAYS ON SITE 24: 365 | LARGEST CONTAINER 25: 55 Gallons

STORAGE CONTAINER (Check all that apply) 26

☐ a. ABOVEGROUND TANK	☐ e. PLASTIC DRUM	☐ i. VAT	☐ m CYLINDER	☐ q. TANK WAGON
☐ b. UNDERGROUND TANK	☐ f. NONMETALLIC DRUM	☐ I. FIBER DRUM	☐ n. GLASS CONTAINER	☐ r. RAIL CAR
☐ c. TANK INSIDE BLDG	☐ g. METAL CONTAINER	☐ I. BAG(S)	☐ o PLASTIC CONTAINER	☐ s. TOTE BIN
☒ d STEEL DRUM	☐ h. CARBOY	☐ I. BOX(S)	☐ p. IN MACH OR EQUIP	☐ I. OTHER_____

STORAGE PRESSURE ☒ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 27

STORAGE TEMPERATURE ☒ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ d. CRYOGENIC 28

	%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1	1.1 29	Xylene (mixed isomens) 30	☐ Yes ☒ No 31	1330-20-7 32
2	0.2 29	Ethylbenzene 30	☐ Yes ☒ No 31	100-41-4 32
3	29	30	☐ Yes ☐ No 31	32
4	29	30	☐ Yes ☐ No 31	32
5	29	30	☐ Yes ☐ No 31	32

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

PLACARDING INFORMATION

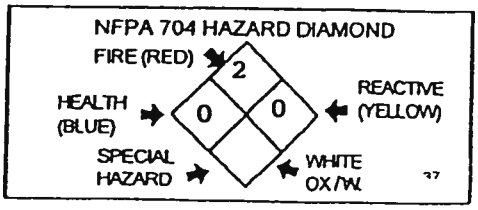
UNDOT # UN1863 33
Refer to shipping papers or MSDS

DOT HAZARD CLASS _____ 34
Refer to shipping papers or MSDS

EPCRA ☐ YES ☐ NO 35

X _____ 36
If EPCRA, Please Sign Here

NFPA 704 HAZARD DIAMOND 37



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HAZARDOUS MATERIALS INVENTORY FORM

FORM 3

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Page 2 of 2 2

FACILITY ID # 3 0 0 3 5 BUSINESS NAME 3 Precision Airparts Support Services, Inc.

I. FACILITY INFORMATION

CHEMICAL LOCATION 4: Chained to cabinet in test area.

CONFIDENTIAL LOCATION EPCRA ☐ Yes ☒ No 5 | MAP # One 6 | GRID # 5.8 X I.1 7

II. CHEMICAL INFORMATION

CHEMICAL NAME: Nitrogen | WASTE ☐ Yes 8 | TRADE SECRET ☐ Yes ☒ No 11 (* If EPCRA see instructions)

COMMON NAME 9: Nitrogen, Compressed Gas | An EHS Chemical ☐ Yes ☒ No 12 (*If EHS is "Yes", all amounts must be LBS)

CAS # 10: 7727-37-9 | FIRE CODE HAZARD CLASSES (supplied by GGFD) 13

TYPE (Check one only) ☒ a. PURE ☐ b. MIXTURE ☐ c. WASTE 14 | RADIOACTIVE ☐ Yes ☒ No 15 | CURIES 16

PHYSICAL STATE (Check one only) ☐ a. SOLID ☐ b. LIQUID ☒ c. GAS 17 | HEALTH/HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☒ c. PRESSURE RELEASE 18 ☐ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH

AVERAGE DAILY AMOUNT 19: 1020 | MAXIMUM DAILY AMOUNT 20: 1020 | ANNUAL WASTE AMOUNT 21: 0 | STATE WASTE CODE 22

UNITS ☐ a. GALLONS ☒ b. CUBIC FEET 23 ☐ c. POUNDS ☐ d. TONS (*If EHS, amount must be in pounds.) | DAYS ON SITE 24: 365 | LARGEST CONTAINER 25: 255 CU. FT.

STORAGE CONTAINER (Check all that apply) ☐ a. ABOVEGROUND TANK ☐ b. UNDERGROUND TANK ☐ c. TANK INSIDE BLDG ☐ d STEEL DRUM ☐ e. PLASTIC DRUM ☐ f. NONMETALLIC DRUM ☐ g. METAL CONTAINER ☐ h. CARBOY ☐ I. VAT ☐ I. FIBER DRUM ☐ I. BAG(S) ☐ I. BOX(S) ☒ m CYLINDER ☐ n. GLASS CONTAINER ☐ o PLASTIC CONTAINER ☐ p. IN MACH OR EQUIP ☐ q. TANK WAGON ☐ r. RAIL CAR ☐ s. TOTE BIN ☐ I. OTHER_____ 26

STORAGE PRESSURE ☐ a. AMBIENT ☒ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 27

STORAGE TEMPERATURE ☒ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ d. CRYOGENIC 28

	%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1	29	30	☐ Yes ☐ No 31	32
2	29	30	☐ Yes ☐ No 31	32
3	29	30	☐ Yes ☐ No 31	32
4	29	30	☐ Yes ☐ No 31	32
5	29	30	☐ Yes ☐ No 31	32

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

PLACARDING INFORMATION

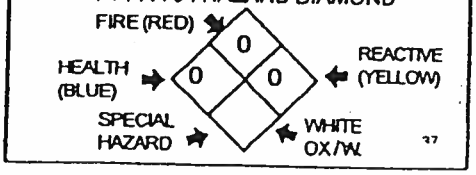
UNDOT # UN1066 33
Refer to shipping papers or MSDS

DOT HAZARD CLASS _____ 34
Refer to shipping papers or MSDS

EPCRA ☐ YES ☐ NO 35

X _____ 36
If EPCRA, Please Sign Here

NFPA 704 HAZARD DIAMOND



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HAZARDOUS MATERIALS INVENTORY FORM

FORM 3

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FACILITY ID# 3 0 0 3 5 BUSINESS NAME 3: Precision Airparts Support Services, Inc.

I. FACILITY INFORMATION

CHEMICAL LOCATION 4: On cart in grinding room

CONFIDENTIAL LOCATION EPCRA ☐ Yes ☒ No 5 | MAP # 6: One | GRID # 7: 8.1 X J.9

II. CHEMICAL INFORMATION

CHEMICAL NAME: Oxygen, Compressed Gas | WASTE ☐ Yes 8 | TRADE SECRET ☐ Yes ☒ No 11 (* If EPCRA see instructions)

COMMON NAME 9: Oxygen, Compressed Gas | An EHS Chemical ☐ Yes ☒ No 12 (*If EHS is "Yes", all amounts must be LBS)

CAS # 10: 7782-44-7 | FIRE CODE HAZARD CLASSES (supplied by GGFD) 13

TYPE OF MIXTURE (CHECK ONE ONLY) ☒ a. PURE ☐ b. MIXTURE ☐ c. WASTE 14 | RADIOACTIVE ☐ Yes ☒ No 15 | CURIES 16

PHYSICAL STATE (CHECK ONE ONLY) ☐ a. SOLID ☐ b. LIQUID ☒ c. GAS 17 | FIRE/HAZARD PROPERTIES ☐ a. FIRE ☐ b. REACTIVE ☒ c. PRESSURE RELEASE 18 ☐ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH

AVERAGE DAILY AMOUNT 19: 281 | MAXIMUM DAILY AMOUNT 20: 281 | ANNUAL WASTE AMOUNT 21: 0 | STATE WASTE CODE 22

UNITS ☐ a. GALLONS ☒ b. CUBIC FEET 23 ☐ c. POUNDS ☐ d. TONS (*If EHS, amount must be in pounds.) | DAYS ON SITE 24: 365 | LARGEST CONTAINER 25: 281

STORAGE CONTAINER (CHECK ALL THAT APPLY) ☐ a. ABOVEGROUND TANK ☐ b. UNDERGROUND TANK ☐ c. TANK INSIDE BLDG ☐ d STEEL DRUM ☐ e. PLASTIC DRUM ☐ f. NONMETALLIC DRUM ☐ g. METAL CONTAINER ☐ h. CARBOY ☐ I. VAT ☐ I. FIBER DRUM ☐ I. BAG(S) ☐ I. BOX(S) ☒ m CYLINDER ☐ n. GLASS CONTAINER ☐ o PLASTIC CONTAINER ☐ p. IN MACH OR EQUIP ☐ q. TANK WAGON ☐ r. RAIL CAR ☐ s. TOTE BIN ☐ t. OTHER_____ 26

STORAGE PRESSURE ☐ a. AMBIENT ☒ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 27

STORAGE TEMPERATURE ☒ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ d. CRYOGENIC 28

	%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1	29	30	☐ Yes ☐ No 31	32
2	29	30	☐ Yes ☐ No 31	32
3	29	30	☐ Yes ☐ No 31	32
4	29	30	☐ Yes ☐ No 31	32
5	29	30	☐ Yes ☐ No 31	32

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

PLACARDING INFORMATION

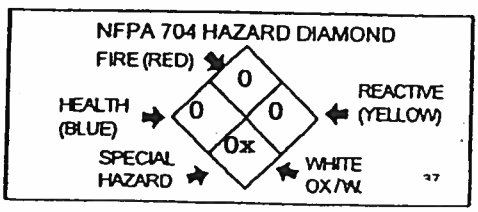
UNDOT # UN1072 33
Refer to shipping papers or MSDS

DOT HAZARD CLASS _____ 34
Refer to shipping papers or MSDS

EPCRA ☐ YES ☐ NO 35

X _____ 36
If EPCRA, Please Sign Here

NFPA 704 HAZARD DIAMOND



37

MAKE AS MANY COPIES OF CHEMICAL INVENTORY FORM AS NEEDED

Revised 2/02 -- haz-inven2

CITY OF GARDEN GROVE
11301 ACACIA PARKWAY
GARDEN GROVE, CALIFORNIA 92842
(714) 741-5636

CUPA

BUSINESS ACTIVITIES

FACILITY INFORMATION

I. FACILITY IDENTIFICATION

FACILITY ID# 3 0 0 3 5 1.

EPA ID # (Hazardous Waste Only) 2.
CAD981402043

BUSINESS NAME (Same as FACILITY NAME or DBA-Doing Business As) 3.

Precision Airparts Support Services, Inc.

II. ACTIVITIES DECLARATION

NOTE: If you check YES to any part of this list, please submit the Business Owner/Operator Identification page.

Does your facility...	If Yes, please complete these pages of the UPCF...	
A. HAZARDOUS MATERIALS		
Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	☒ YES ☐ NO 4.	✓ HAZARDOUS MATERIALS INVENTORY - CHEMICAL DESCRIPTION (Form 3)
B. UNDERGROUND STORAGE TANKS (USTs)		
1. Own or operate underground storage tanks?	☐ YES ☒ NO 5.	✓ UST FACILITY (Formerly SWRCB Form A) ✓ UST TANK (one page per tank) (Formerly Form B)
2. Intent to upgrade existing or install new USTs?	☐ YES ☒ NO 6.	✓ UST FACILITY ✓ UST TANK (one per tank) ✓ UST INSTALLATION - CERTIFICATE OF COMPLIANCE (one page per tank) (Formerly Form C)
3. Need to report closing a UST?	☐ YES ☒ NO 7.	✓ UST TANK (closure portion-one page per tank)
C. ABOVE GROUND PETROLEUM STORAGE TANKS (ASTs)		
Own or operate ASTs above these thresholds: - any tank capacity is greater than 660 gallons, or - the total aggregate capacity for the entire facility (ASTs, drums and portable containers) greater than 1,320 gallons?	☐ YES ☒ NO 8.	✓ NO FORM REQUIRED TO CUPAS
D. HAZARDOUS WASTE		
1. Generate hazardous waste?	☒ YES ☐ NO 9.	✓ EPA ID NUMBER - provide at the top of this page
2. Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC §25143.2)?	☐ YES ☒ NO 10.	✓ RECYCLABLE MATERIALS REPORT (one per recycler)
3. Treat hazardous waste on site?	☐ YES ☒ NO 11.	✓ ONSITE HAZARDOUS WASTE TREATMENT - FACILITY (Formerly DTSC Forms 1772) ✓ ONSITE HAZARDOUS WASTE TREATMENT - UNIT (one page per unit) (Formerly DTSC Forms 1772A,B,C,D and L)
4. Treatment subject to financial assurance requirements (for Permit by Rule and Condition Authorization)?	☐ YES ☒ NO 12.	✓ CERTIFICATION OF FINANCIAL ASSURANCE (Formerly DTSC Form 1232)
5. Consolidate hazardous waste generated at a remove site?	☒ YES ☐ NO 13.	✓ REMOTE WASTE/CONSOLIDATION SITE ANNUAL NOTIFICATION (Formerly DTSC Form 1196)
6. Need to report the closure/removal of a tank that was classified waste and cleaned onsite?	☐ YES ☒ NO 14.	✓ HAZARDOUS WASTE TANK CLOSURE CERTIFICATION (Formerly DTSC Form 1249)
E. LOCAL REQUIREMENTS		
Cal-ARP: California Accidental Release Prevention Program *H&SC Chapter 6.95, Article 2, §25531 et seq* — Stationary Source with more than a Threshold Quantity of a Regulated Substance in a Process	DN ~~☒~~ YES ☒ NO 15.	✓ REGULATED SUBSTANCE REPORTING FORM (Orange County CUPA)

W	2.6 X F.2	WASTE OIL (Various)
S	2.9 X F.3	PETROLEUM BASE SOLVENT
S	3.1 X F.3	IMMERSION PARTS CLEANER
F	4.2 X H.8	FLAMMABLES SAFETY CABINET (Various)
F	4.5 X H.8	FLAMMABLES SAFETY CABINET (Various)
F	4.8 X I.4	FLAMMABLES SAFETY CABINET (Various)
W	4.8 X G.2	WATER SHUT-OFF
	5.5 X J.2	DRAIN TO SEWER
M	5.5 X H.9	CONTAINMENT PALLET (Turbine Engine Oil)
C	5.8 X I.1	CCOMPRESSED NITROGEN
C	5.8 X I.7	COMPRESSED NITROGEN
G	5.9 X H.1	NATURAL GAS SHUT-OFF
M	6.1 X J.6	LAPMASTER #3 OIL
	6.5 X E.6	DRAIN TO SEWER
M	6.3 X I.8	CONTAINMENT PALLET (Test Fluid)
D	6.6 X J.1	CONTAINMENT PALLET (Jet A)
E	7.4 X J.2	ELECTRICAL PANEL SHUT-OFF
C	8.1 X J.9	COMPRESSED ACETYLENE,ARGON,HELIUM & OXYGEN
	8.2 X F.5	STAGING AREA EVACUATION
	9.1 X H.6	FIRE HYDRANT

Location of 17 each hand Held Fire Extinguishers

2.8 X F.0

4.0 X G.6

4.1 X H.6

4.2 X G.4

4.6 X I.6

5.1 X I.2

5.1 X J.7 - Extinguisher, MSDS and Business Emergency Plan.

5.2 X I.1

5.4 X G.9

5.6 X H.6 - Extinguisher, MSDS and Business Emergency Plan.

6.7 X J.9

6.8 X K.5

7.3 X I.8

7.3 X K.2

7.4 X L.5

7.7 X J.4

8.2 X K.2

GARDEN GROVE

FIRE DEPARTMENT

HAZARDOUS MATERIALS DISCLOSURE PROGRAM

REPORTING FORMS PACKET: PART 2

BUSINESS EMERGENCY PLAN
SHORT VERSION

THE FOLLOWING FORMS ARE FOR USE IN THE EVENT OF AN ACTUAL OR THREATENING HAZARDOUS MATERIALS EMERGENCY.

FILL THESE FORMS OUT COMPLETELY AND BE READY TO HAND THEM TO THE FIRE DEPARTMENT PERSONNEL WHEN THEY ARRIVE AT THE EMERGENCY SCENE.

IN THE EVENT OF AN EMERGENCY,

CALL 911

GARDEN GROVE FIRE DEPARTMENT
HAZARDOUS MATERIALS DISCLOSURE PROGRAM

BUSINESS EMERGENCY PLAN

All businesses using, handling or storing hazardous materials that are required to disclose must complete a Business Emergency Plan. The occupancy groups listed below will be permitted to complete a short version of the business plan. The completion of the short form shall be considered the application required in the Health and Safety Code, Title 20, Chapter 6.95, Section 25503.5.

The Chief of the Garden Grove Fire Department in the role of the Administering Agency, allows the following types of businesses to file the short version of the Business Emergency Plan.

1. Gasoline/Diesel service stations. S-3 occupancies.

2. Repair Garages. H-4 occupancies.

3. Dry Cleaners

4. Businesses, at the Fire Chief's discretion, with less than 10 employees and using materials that are not considered highly or acutely toxic.

The Fire Chief exempts the following portions from the business plan. These exemptions have been established because the materials used in the above-mentioned occupancies are common knowledge to first responding units. The materials pose no significant, unexpected hazard nor do they affect the ability of the administering agency to effectively respond to their release of a hazardous material, and that there are unusual circumstances justifying this exemption.

Exemptions

1. Detailed evacuation plans.

2. Detailed key employee responsibilities.

3. Training outline.

4. Detailed prevention outline.

The following Short Business Emergency Plan must be completed in order for the exemption to be granted.

GARDEN GROVE FIRE DEPARTMENT
HAZARDOUS MATERIALS DISCLOSURE PROGRAM

BUSINESS EMERGENCY PLAN

Personnel Emergency Notifications and Responsibilities

Employee Evacuation and Staging Areas:

1. The type of alarm signal that will be used to initiate an evacuation at the facility: (vocal, paging system, manual alarm, etc.)

   Vocal and Paging System.

2. All employees shall be trained to evacuate the facility through at least one exit. Alternate exit routes shall be designated if available.

   Main office door, Shipping door and Back door.

3. Staging areas shall be designated for all employees. Staging areas will be the location that all employees shall report to in the event of an emergency.

   In Facility parking lot. Marked on site plan.

   One person shall be designated to account for all personnel at the staging area. That person will be responsible for meeting the incoming Fire units and reporting the conditions known about the incident.

   1st Mr. Ken Robertson, 2nd Mr. Jim Shover, 3rd Stephanie Reiner.

   The Staging area is at the following location as shown on your site plan map.

   Main Parking Lot.

Employee Responsibilities:

At least one employee shall be responsible for the following minimum requirements in the event of an emergency response by the Fire Department.

1. Notify employees. Initiate evacuation procedures.

   1st Mr. Ken 2nd Mr. Jim 3rd. Ms. Stephanie.

2. Notify the Garden Grove Fire Department. Dial 911

   1st Mr. Ken 2nd Mr. Jim 3rd Ms. Stephanie.

3. Try to identify the nature of the incident.

   Mr. Ken Robertson or Mr. Jim Shover

4. Report to the staging area and account for evacuated employees. **1. Ken 2.Jim 3. Steph**
5. Report to the incoming fire units.

   Mr. Ken or Mr. Jim

6. Activate any emergency mitigation procedures that are available at your business. (List below any mitigation procedures specific to your business, if any.)

   NOT APPLICABLE.

GARDEN GROVE FIRE DEPARTMENT
HAZARDOUS MATERIALS DISCLOSURE PROGRAM

BUSINESS EMERGENCY PLAN

Personnel Emergency Notifications and Responsibilities

Training Requirements

State law requires training of employees where the business uses, handles or stores hazardous materials.

As Outlined in Company Manual.

Employee training provided on:

HAZ-MAT and MSDS.

- Appointment of person/persons on site who are trained in key role positions. Emergency coordinator, evacuation coordinators, staging area supervisors and documenting officers.
- Procedures to follow during a release or threatened release of a hazardous material (evacuation to staging areas).

  Public Address and Vocal Notification of all Personel.
- Information contained in material safety data sheets.

  Formal Training Semianually, New product Training at time of receipt.
- Warning labels/placards.

  Posted As Required.
- Safe work practices.

  Formal Training Annually.
- Use of on site emergency equipment and supplies. **OJT for Ken and Jim.**
- Use and location of personal protective equipment. **Formal Training Annually.**
- Any chemical, hazardous material or substance that could be encountered in his/her work area.

  Right to know training annually.
- On-site alarm system for evacuation.

  Vocal and Paging System.
- Discuss possible release of hazardous materials scenario.

  Right to know training Annually.

Emergency Notifications

A handler of hazardous materials is required to immediately report any release or threatened release of hazardous materials to the Garden Grove Fire Department. Failure to do so may result in criminal and/or civil prosecution.

Required Notifications

In the event of a release or threatened release of hazardous materials, it is state law to notify each of the following agencies:

Agency	Phone Numbers
Garden Grove Fire Department, Police, Paramedics	911
Office of Emergency Services (OES)	(800) 852-7550 OR (916) 427-4341
National Response Center	(800) 424-8802

By: 1st- Mr. Ken, 2nd- Mr. Jim, 3rd- Ms. Steph

GARDEN GROVE FIRE DEPARTMENT
HAZARDOUS MATERIALS DISCLOSURE PROGRAM

BUSINESS EMERGENCY PLAN

Personnel Emergency Notifications and Responsibilities

Prevention

All materials are stored, used and handled within the guidelines of the Uniform Fire Code, N.F.P.A. standards, California Administrative Code, Titles 19 and 20.

This section is meant to initiate a Prevention Plan at your business and to assist in preventing a release, or threatened release, of a hazardous material. In the spaces provided, place a checkmark by the preventive actions which have been initiated by your business to abate hazards relating to hazardous material handling, use of storage.

Consideration shall include:

1. Drum storage and/or above ground tank storage areas:

   a Y Isolation and separation of incompatible materials

   b Y Diking areas to contain spills

   c Y Storage on paved ground

2. Compressed and/or cryogenic gas storage areas:

   a Y Cylinders stored upright and secured

   b Y Isolation and/or separation of incompatible cylinders (oxygen and flammable gases, etc.)

3. General:

   a Y Safe work practices are exercised in daily routines.

   b Y Employees who handle hazardous materials are properly trained.

   c Y Material Safety Data Sheets (MSDS) readily available for each hazardous material on the premises.

   d Y Labeling of all materials and storage areas with the product name and hazards associated with the product (drums, piping, tanks, etc.)

   e Y Uniform Fire Code (UFC) requires separation between outside hazardous material storage area or tanks and combustible materials (wood, bush, etc.)

   f Y Posting of "No Smoking" signs where appropriate.

GARDEN GROVE FIRE DEPARTMENT

BUSINESS EMERGENCY PLAN

A BUSINESS IS REQUIRED BY LAW TO NOTIFY THE GARDEN GROVE FIRE DEPARTMENT WITHIN 30 DAYS OF ANY OF THE FOLLOWING EVENTS:

1. Change of business address
2. Change of business ownership
3. Change of business name
4. Cessation of business operation (quitting business)
5. Use or handling of a previously undisclosed hazardous material
6. A 100% increase in the quantity of a previously disclosed hazardous material

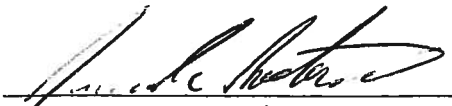
Your business is required by State law to retain a copy of this entire Business Plan, chemical inventory, material safety data sheets and site maps, for review by Fire Department personnel. State where your disclosure and Emergency Business Plan will be kept.

To the right of the Shipping Door. Mounted ont the wall.

Show location on site map also using symbol in the legend.

Note: A fee is charged for a replacement copy from the Garden Grove Fire Department.

I CERTIFY, UNDER PENALTY OF PERJURY, THAT THE ENCLOSED INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

SIGNATURE: 

NAME: Kenneth E. Robertson

TITLE: Chief Inspector

DATE: 20 November 2006

U. S. OIL & REFINING CO.

MATERIAL SAFETY DATA SHEET

JET FUEL G012

Revised 8/26/03

U. S. OIL & REFINING CO.
3001 Marshall Ave.
Tacoma, WA 98421

EMERGENCY ASSISTANCE:
COMPANY: (253) 383-1651
CHEMTREC: (800) 424-9300

IMPORTANT: Read this MSDS before handling or disposing of this product. Pass this information on to employees, customers and product users.

1. GENERAL

Product Name: Jet Fuel
Other Names: Jet Fuel, Kerosene, Jet A (212110), Jet A-1 (212212), Jet A-1 (50) (212211), JP-8 (212130)

Chemical Family: Hydrocarbon
Generic Name: Petroleum Distillate Fuel
DOT Shipping Name: Fuel, Aviation, Turbine Engine, 3, UN1863, III

NFPA Hazard Rating: HEALTH: 0
FIRE: 2
REACTIVITY: 0
SPECIAL:

2. PRODUCT COMPONENTS

Component	CAS Number	Percent
Hydrocarbons with a boiling point Range of 148°C to 293°C	8008-20-6	100 (AP)

3. OCCUPATIONAL EXPOSURE LIMITS

Substance	Value	Time/Type	Date	Source
Stoddard Solvent	500 ppm	8 Hr PEL	2003	OSHA
(see section 11)	60 ppm	8 Hr REL	2003	NIOSH
Naphthalene	10 ppm	8 Hr TWA	2003	OSHA
	15 ppm	STEL	2003	NIOSH

4. HEALTH INFORMATION

Summary: Liquid, mist of or vapors can cause eye, skin and respiratory tract irritation. Ingestion of liquid and aspiration into the lungs can result in chemical pneumonia.

Routes of Exposure	Signs and Symptoms
Inhalation	Vapors or mists from this material can irritate the nose, throat, and lungs, and can cause signs and symptoms of central nervous system depression, depending on the concentration and duration of exposure.
Eye Contact	Eye irritation may result from contact with liquid, mists, and/or vapors.
Skin Contact	Skin irritation leading to dermatitis may occur upon prolonged or repeated contact.
Ingestion	This material can irritate the mouth, throat, stomach, and cause nausea, vomiting, diarrhea and restlessness. Aspiration into the lungs will cause chemical pneumonia.

Overexposure Effects:
Supplemental Information:

This product contains petroleum distillates similar to those shown to produce skin tumors on laboratory animals. Avoid prolonged or repeated skin contact.

Caution is recommended for pre-existing central nervous system diseases. Personnel with pre-existing central nervous system disease, skin disorders, or chronic respiratory diseases should avoid exposure to this product.

---

5. FIRE AND EXPLOSION

Flash Point (Method): AP 38°C (D-93, D-56)

Autoignition Temperature (Method): AP 210°C (E-659)

Flammable Limits (% Vol. in air) at Normal Atmospheric Temperature and Pressure LOWER: AP 0.7 UPPER: AP 5.0

Unusual Fire and Explosion Hazards:

Moderately combustible! This material will release flammable vapors which if exposed to an ignition source can burn in the open or be explosive in confined spaces. Mists or sprays may be flammable at temperatures below the normal flash point.

Extinguishing Media:

Dry chemical, foam, carbon dioxide, halon. Water fog or water spray are of value for cooling, but may not achieve extinguishment.

Special Firefighting Procedures:

For fires involving this material, do not enter any enclosed fire space without proper protective equipment, including self-contained breathing apparatus. Cool tanks and containers exposed to fire with water.

---

6. EMPLOYEE PROTECTION

Respiratory: This material is not expected to present a respiratory hazard because of its low vapor pressure. But, if excessive mist or vapors result from conditions of use, wear proper NIOSH/MSHA-approved respiratory equipment.

Ventilation: Use adequate ventilation to keep vapor concentrations of this material below the occupational exposure limits.

Eye: Eye protection (chemical-type goggles and/or face shield) should be worn whenever there is a likelihood of splashing or spraying liquid. Contact lenses should not be worn. Eye wash water should be provided.

Skin: Avoid prolonged or repeated skin contact. If conditions or frequency of use present danger of exposure, clean and impervious protective clothing such as gloves, apron, boots, and facial protection should be worn.

Other: Use good personal hygiene practices. In case of skin contact, wash with mild soap and water or a waterless hand cleaner. Immediately remove soiled clothing and wash thoroughly before reuse. Discard contaminated shoes.

---

7. EMERGENCY AND FIRST AID

Inhalation: Immediately remove from contaminated area to fresh air. For respiratory distress, give oxygen or administer CPR (cardiopulmonary resuscitation), if necessary. Obtain prompt medical attention.

Eye Contact: Flush with clean low-pressure water for at least 15 minutes. If irritation persists, obtain medical attention.

Skin Contact: Immediately remove contaminated clothing. Wash affected area thoroughly with soap and water. If irritation persists, seek medical attention. Wash clothing thoroughly before reuse, but discard contaminated leather goods.

Ingestion: Do not induce vomiting, since aspiration into the lungs will cause chemical pneumonia. Must obtain medical attention promptly.

Note to Physician: Personnel with pre-existing skin disorders or chronic respiratory diseases should avoid exposure to this product.

---

8. SPILL AND DISPOSAL

Actions if Material is Spilled or Leaked:

Notification procedures: Report spills release as required to appropriate authorities. U.S. Coast Guard and EPA regulations require immediate reporting of spills/releases that could reach any waterway including intermittent dry creeks. Report spill/release to Coast Guard National Reponse Center Toll Free Number (800) 424-8802. In case of accident or road spill notify Chemtrec (800) 424-9300.

Procedures if materials are released or spilled: Land spill: Eliminate sources of ignition. Shut off source taking normal safety precautions. Take measures to minimize the effect on ground water. Recover by pumping using explosion-proof equipment or contain spilled liquid with sand or other suitable absorbent and remove mechanically into containers. If necessary, dispose of absorbed residues as directed in the waste disposal methods discussion.

Water Spill: Eliminate sources of ignition and warn other ships in the vicinity to stay clear. Notify Port and other relevant authorities. Confine with booms if skimming equipment is available to recover the spill. Otherwise disperse in unconfined waters, if permitted by local authorities and environmental agencies.

Environmental Precautions: Prevent material from entering sewers, water sources or low lying areas; advise the relevant authorities if it has, or if it contaminates soil/vegetation.

Personal Precautions: Use proper protective equipment.

Waste Disposal Methods:

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by USEPA under RCRA (40CFR2612) or other state and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, Federal law requires disposal at a licensed hazardous waste disposal facility.

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9. PHYSICAL AND CHEMICAL DATA

Freezing Point: LT - 59^{o}C

Specific Gravity (H_2O = 1 @ 39.2°F): 0.806 - .829

Viscosity Units, Temp. (Method): AP 1.3-2.2 CST AT 100^{o}F (D-445)

Volatile Characteristics: NA

Stability: Stable

Other Physical and Chemical Properties: Sulfur content LT 0.3 %, Aromatics content LT 25 VOL %, Olefins content LT 5 VOL%.

Appearance and Odor: Water white to light amber colored liquid; Kerosene odor.

Conditions to Avoid: Heat, sparks, and open flame.

Materials to Avoid: Reacts with strong acids and strong oxidizing materials.

Hazardous Decomposition Products: Burning or excessive heating may produce Carbon Monoxide and other harmful gases and vapors including oxides and/or other compounds of sulfur..

---

10. SARA TITLE III

Extremely Hazardous Substances for Emergency Response and Planning:

Component	CAS Number	Percent	TPQ(lbs)	RQ(lbs)

none

Toxic Chemicals for Emission Reporting

Component	CAS Number	Percent (Typical)
Ethylbenzene	100-41-4	0.20 wt%
Xylene (mixed isomers)	1330-20-7	1.1 WT%

EPA Hazard Classification:

Acute Health Hazard: X
Chronic Health Hazard: X
Fire Hazard: X
Pressure Hazard:
Reactive Hazard:
Not Applicable:

11. ADDITIONAL PRECAUTIONS

Handling & Storage:

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when this material is loaded into tanks previously containing gasoline or other low flash point product. (see API publication 2003). Keep containers closed and away from heat and ignition sources. All electrical equipment in areas where product is stored/handled should be installed in accordance with applicable requirements of the National Electric Code, N.F.P.A. Do not use this product as a cleaning agent. Empty containers retain some liquid and vapor residues, and hazard precautions must be observed when handling empty containers.

General Comments:

Materials similar to some components in this product were found to be mutagenic in "in vitro" tests. The exact relationship between these results and possible human effects is not known.

"Petroleum Distillate"--16 CFR 1500.14(B)(3). Use special Federal labeling if intended, or packaged, for use in the household or by children

Specific exposure standards for this material have not been agreed upon; therefore, ACGIH TLV guidelines (see section 3) are suggested for interim use until specific standards are adopted.

Some of the information present and conclusions drawn herein are from sources other than direct test data on the mixture itself.

-----**NOTE**-------Qualifications

EQ = Equal	**AP** = Approximately	**N/AV** = Not Available
LT = Less Than	**UK** = Unknown	**N/AP** = Not Applicable
GT = Greater than	**TR** = Trace	**N/DA** = No Data Available

Disclaimer of Liability

The information in this MSDS was obtained for sources which we believe are reliable. **HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS ACCURACY OR CORRECTNESS.**

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. **FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.**

MATERIAL SAFETY DATA SHEET

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATHESON TRI-GAS, INC.
959 ROUTE 46 EAST
PARSIPPANY, NEW JERSEY 07054-0624

EMERGENCY CONTACT:
CHEMTREC 1-800-424-9300
INFORMATION CONTACT:
973-257-1100

SUBSTANCE: OXYGEN, COMPRESSED GAS

TRADE NAMES/SYNONYMS:
MTG MSDS 71; OXYGEN; DIOXYGEN; MOLECULAR OXYGEN; OXYGEN MOLECULE; PURE OXYGEN; UN 1072; O2; MAT12831; RTECS RS2060000

CHEMICAL FAMILY: inorganic, gas

CREATION DATE: Jan 24 1989
REVISION DATE: Dec 16 2002

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: OXYGEN, COMPRESSED GAS
CAS NUMBER: 7782-44-7
PERCENTAGE: 100.0

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=0 FIRE=0 REACTIVITY=0

EMERGENCY OVERVIEW:
COLOR: colorless
PHYSICAL FORM: gas
ODOR: odorless
MAJOR HEALTH HAZARDS: No significant target effects reported.
PHYSICAL HAZARDS: Containers may rupture or explode if exposed to heat. May ignite combustibles.

POTENTIAL HEALTH EFFECTS:
INHALATION:
SHORT TERM EXPOSURE: irritation, changes in body temperature, nausea, difficulty breathing, irregular heartbeat, dizziness, disorientation, hallucinations, mood swings, pain in extremities, tremors, lung congestion, convulsions
LONG TERM EXPOSURE: irritation, chest pain, lung damage
SKIN CONTACT:
SHORT TERM EXPOSURE: no information on significant adverse effects
LONG TERM EXPOSURE: no information on significant adverse effects

EYE CONTACT:
SHORT TERM EXPOSURE: irritation
LONG TERM EXPOSURE: no information on significant adverse effects
INGESTION:
SHORT TERM EXPOSURE: no information on significant adverse effects
LONG TERM EXPOSURE: no information is available

SECTION 4 FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

SKIN CONTACT: Wash exposed skin with soap and water.

EYE CONTACT: Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.

INGESTION: If a large amount is swallowed, get medical attention.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire hazard. Oxidizer. May ignite or explode on contact with combustible materials. Containers may rupture or explode if exposed to heat.

EXTINGUISHING MEDIA: carbon dioxide, regular dry chemical

Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Use extinguishing agents appropriate for surrounding fire. Cool containers with water. Apply water from a protected location or from a safe distance.

SECTION 6 ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:
Stop leak if possible without personal risk. Avoid contact with combustible materials. Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.

SECTION 7 HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:
OXYGEN, COMPRESSED GAS:
No occupational exposure limits established.

VENTILATION: Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Eye protection not required, but recommended.

CLOTHING: Protective clothing is not required.

GLOVES: Protective gloves are not required.

RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.
For Unknown Concentrations or Immediately Dangerous to Life or Health -
Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.
Any self-contained breathing apparatus with a full facepiece.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: gas
COLOR: colorless
ODOR: odorless
TASTE: tasteless
MOLECULAR WEIGHT: 31.9988
MOLECULAR FORMULA: O2
BOILING POINT: -297 F (-183 C)
FREEZING POINT: -360 F (-218 C)
VAPOR PRESSURE: 760 mmHg @ -183 C
VAPOR DENSITY (air=1): 1.1
SPECIFIC GRAVITY: Not applicable
DENSITY: 1.309 g/L @ 25 C
WATER SOLUBILITY: 3.2% @ 25 C
PH: Not applicable
VOLATILITY: Not applicable
ODOR THRESHOLD: Not available
EVAPORATION RATE: Not applicable
VISCOSITY: 0.02075 cP @ 25 C
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not applicable
SOLVENT SOLUBILITY:
Soluble: alcohol

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid contact with combustible materials. Protect from physical damage and heat. Containers may rupture or explode if exposed to heat.

INCOMPATIBILITIES: combustible materials, halo carbons, metals, bases, reducing agents, amines, metal salts, oxidizing materials

HAZARDOUS DECOMPOSITION:
Thermal decomposition products: miscellaneous decomposition products

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

OXYGEN, COMPRESSED GAS:
MUTAGENIC DATA: Available.
REPRODUCTIVE EFFECTS DATA: Available.

OXYGEN, COMPRESSED GAS:
MUTAGENIC DATA: Available.
REPRODUCTIVE EFFECTS DATA: Available.

SECTION 12 ECOLOGICAL INFORMATION

Not available

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

SECTION 14 TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:
PROPER SHIPPING NAME: Oxygen, compressed
ID NUMBER: UN1072
HAZARD CLASS OR DIVISION: 2.2
LABELING REQUIREMENTS: 2.2; 5.1

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:
SHIPPING NAME: Oxygen, compressed
ID NUMBER: UN1072
CLASSIFICATION: 2.2, 5.1

SECTION 15 REGULATORY INFORMATION

U.S. REGULATIONS:
CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30): Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):
ACUTE: No
CHRONIC: No
FIRE: Yes
REACTIVE: No
SUDDEN RELEASE: Yes

SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.

OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.

STATE REGULATIONS:
California Proposition 65: Not regulated.

CANADIAN REGULATIONS:
WHMIS CLASSIFICATION: A, C.

NATIONAL INVENTORY STATUS:
U.S. INVENTORY (TSCA): Listed on inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CANADA INVENTORY (DSL/NDSL): Not determined.

SECTION 16 OTHER INFORMATION

MSDS SUMMARY OF CHANGES
SECTION 15 REGULATORY INFORMATION

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BOC GASES

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: NITROGEN

1. Chemical Product and Company Identification

BOC Gases,
Division of,
The BOC Group, Inc.
575 Mountain Avenue
Murray Hill, NJ 07974

TELEPHONE NUMBER: (908) 464-8100
24-HOUR EMERGENCY TELEPHONE NUMBER: CHEMTREC (800) 424-9300

BOC Gases
Division of
BOC Canada Limited
5975 Falbourne Street, Unit 2
Mississauga, Ontario L5R 3W6

TELEPHONE NUMBER: (905) 501-1700
24-HOUR EMERGENCY TELEPHONE NUMBER: (905) 501-0802
EMERGENCY RESPONSE PLAN NO: 2-0101

PRODUCT NAME: NITROGEN
CHEMICAL NAME: Nitrogen
COMMON NAMES/SYNONYMS: Nitrogen, compressed; Nitrogen gas
TDG (Canada) CLASSIFICATION: 2.2
WHMIS CLASSIFICATION: A

PREPARED BY: Loss Control (908)464-8100/(905)501-1700
PREPARATION DATE: 6/1/95
REVIEW DATES: 6/1/99

2. Composition, Information on Ingredients

EXPOSURE LIMITS[1]:

INGREDIENT	% VOLUME	PEL-OSHA[2]	TLV-ACGIH[3]	LD_{50} or LC_{50} Route/Species
Nitrogen FORMULA: N_2 CAS: 7727-37-9 RTECS #: QW9700000	99.995 to 99.999	None Established	Simple Asphyxiant	Not Available

[1] Refer to individual state of provincial regulations, as applicable, for limits which may be more stringent than those listed here.
[2] As stated in 29 CFR 1910, Subpart Z (revised July 1, 1993)
[3] As stated in the ACGIH 1998-1999 Threshold Limit Values for Chemical Substances and Physical Agents.

OSHA Regulatory Status: This material is classified as hazardous under OSHA regulations.

3. Hazards Identification

EMERGENCY OVERVIEW

Odorless, colorless, nonflammable gas. Simple Asphyxiant - This product does not contain oxygen and may cause asphyxia if released in a confined area. Maintain oxygen levels above 19.5%. Contents under pressure. Use and store below 125 °F.

ROUTE OF ENTRY:

Skin Contact	Skin Absorption	Eye Contact	Inhalation	Ingestion
No	No	No	Yes	No

HEALTH EFFECTS:

Exposure Limits	Irritant	Sensitization
No	No	No
Teratogen	Reproductive Hazard	Mutagen
No	No	No
Synergistic Effects None reported		

Carcinogenicity: -- NTP: No IARC: No OSHA: No

EYE EFFECTS:
No adverse effects anticipated.

SKIN EFFECTS:
No adverse effects anticipated.

INGESTION EFFECTS:
No adverse effects anticipated.

INHALATION EFFECTS:
Product is a non-toxic simple asphyxiant. Effects of oxygen deficiency resulting from simple asphyxiants may include: rapid breathing, diminished mental alertness, impaired muscular coordination, faulty judgement, depression of all sensations, emotional instability, and fatigue. As asphyxiation progresses, nausea, vomiting, prostration, and loss of consciousness may result, eventually leading to convulsions, coma, and death.

Oxygen deficiency during pregnancy has produced developmental abnormalities in humans and experimental animals.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

NFPA HAZARD CODES	HMIS HAZARD CODES	RATINGS SYSTEM
Health: 0	Health: 0	0 = No Hazard
Flammability: 0	Flammability: 0	1 = Slight Hazard
Instability: 0	Reactivity: 0	2 = Moderate Hazard
		3 = Serious Hazard
		4 = Severe Hazard

4. First Aid Measures

EYES:
None required.

SKIN:
None required.

INGESTION:
Ingestion is unlikely as product as a gas at room temperature.

INHALATION:
PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS. Victims should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area, and if breathing has stopped, administer artificial resuscitation and supplemental oxygen. Further treatment should be symptomatic and supportive.

5. Fire Fighting Measures

Conditions of Flammability: Nonflammable		
Flash point: None	Method: Not Applicable	Autoignition Temperature: None
LEL(%): None	UEL(%): None	
Hazardous combustion products: None		
Sensitivity to mechanical shock: None		
Sensitivity to static discharge: None		

FIRE AND EXPLOSION HAZARDS:
Nonflammable. Cylinder may rupture violently from pressure when involved in a fire situation.

EXTINGUISHING MEDIA:
None required. Use as appropriate for surrounding materials.

FIRE FIGHTING INSTRUCTIONS: Firefighters should wear respiratory protection (SCBA) and full turnout or Bunker gear. Continue to cool fire-exposed containers until well after flames are extinguished.

6. Accidental Release Measures

Evacuate all personnel from affected area. Use appropriate protective equipment. If leak is in container or container valve, contact the appropriate emergency telephone number listed in Section 1 or call your closest BOC location.

7. Handling and Storage

Electrical classification:
Non-hazardous.

This gas mixture is noncorrosive and may be used with all common structural materials.

Use only in well-ventilated areas. Valve protection caps must remain in place unless container is secured with valve protection 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 (<3000 psig) piping or systems. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into the cylinder.

Protect cylinders from physical damage. Store in cool, dry, well-ventilated area of non-combustible construction away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 125°F (52°C). Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Use a "first in-first out" inventory system to prevent full cylinders being stored for excessive periods of time.

For additional recommendations, consult Compressed Gas Association Pamphlets P-1, G-10.1, P-8.1, P-9, P-16, P-18, and Safety Bulletin SB-2.

Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed space such as a car trunk, van or station wagon. A leak can result in a fire, explosion, asphyxiation or a toxic exposure.

8. Exposure Controls, Personal Protection

ENGINEERING CONTROLS:
Local exhaust to prevent accumulation of high concentrations and maintain air oxygen level at or above 19.5%.

EYE/FACE PROTECTION:
Safety goggles or glasses as appropriate for the job.

SKIN PROTECTION:
Protective gloves of material appropriate for the job.

RESPIRATORY PROTECTION:
Positive pressure air line with full-face mask and escape bottle or self-contained breathing apparatus should be available for emergency use.

OTHER/GENERAL PROTECTION:
Safety shoes or other footwear as appropriate for the job.

9. Physical and Chemical Properties

PARAMETER	VALUE	UNITS
Physical state (gas, liquid, solid)	: Gas	
Vapor pressure	: Not Available	
Vapor density (Air = 1)	: 0.97	
Evaporation point	: Not Available	
Boiling point	: -320.4	°F
	: -195.8	°C
Freezing point	: -345.9	°F
	: -209.9	°C
pH	: Not Applicable	
Specific gravity	: Not Available	
Oil/water partition coefficient	: Not Available	
Solubility (H20)	: Very slightly soluble	
Odor threshold	: Not Applicable	
Odor and appearance	: Colorless, odorless gas	

10. Stability and Reactivity

STABILITY:
Stable

INCOMPATIBLE MATERIALS:
None

HAZARDOUS POLYMERIZATION:
Does not occur.

11. Toxicological Information

Oxygen deficiency during pregnancy has produced developmental abnormalities in humans and experimental animals.

No data given in the Registry of Toxic Effects of Chemical Substances (RTECS) or Sax, Dangerous Properties of Industrial Materials, 7th ed.

12. Ecological Information

No data given.

13. Disposal Considerations

Do not attempt to dispose of residual 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 BOC Gases or authorized distributor for proper disposal.

14. Transport Information

PARAMETER	United States DOT	Canada TDG
PROPER SHIPPING NAME:	Nitrogen, compressed	Nitrogen, compressed
HAZARD CLASS:	2.2	2.2
IDENTIFICATION NUMBER:	UN 1066	UN 1066
SHIPPING LABEL:	NONFLAMMABLE GAS	NONFLAMMABLE GAS

15. Regulatory Information

SARA TITLE III NOTIFICATIONS AND INFORMATION

SARA TITLE III - HAZARD CLASSES:
Sudden Release of Pressure Hazard

16. Other Information

ACGIH	American Conference of Governmental Industrial Hygienists
DOT	Department of Transportation
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
SARA	Superfund Amendments and Reauthorization Act
STEL	Short Term Exposure Limit
TDG	Transportation of Dangerous Goods
TLV	Threshold Limit Value
WHMIS	Workplace Hazardous Materials Information System

Compressed gas cylinders shall not be refilled without the express written permission of the owner. Shipment of a compressed gas cylinder which has not been filled by the owner or with his/her (written) consent is a violation of transportation regulations.

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES:
Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATHESON TRI-GAS, INC.
959 ROUTE 46 EAST
PARSIPPANY, NEW JERSEY 07054-0624

EMERGENCY CONTACT:
CHEMTREC 1-800-424-9300
INFORMATION CONTACT:
973-257-1100

SUBSTANCE: HELIUM

TRADE NAMES/SYNONYMS:
MTG MSDS 48; HELIUM GAS; HELIUM COMPRESSED; HELIUM-4; ATOMIC HELIUM; UN 1046; He; MAT10640; RTECS MH6520000

CHEMICAL FAMILY: inorganic, gas

CREATION DATE: Jan 24 1989
REVISION DATE: Jun 17 2004

2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: HELIUM
CAS NUMBER: 7440-59-7
PERCENTAGE: 100.0

3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=0 FIRE=0 REACTIVITY=0

EMERGENCY OVERVIEW:
COLOR: colorless
PHYSICAL FORM: gas
ODOR: odorless
MAJOR HEALTH HAZARDS: difficulty breathing
PHYSICAL HAZARDS: Containers may rupture or explode if exposed to heat.

POTENTIAL HEALTH EFFECTS:
INHALATION:
SHORT TERM EXPOSURE: nausea, vomiting, difficulty breathing, irregular heartbeat, headache, fatigue, dizziness, disorientation, emotional disturbances, tingling sensation, loss of coordination, suffocation,

convulsions, unconsciousness, coma
LONG TERM EXPOSURE: no information is available
SKIN CONTACT:
SHORT TERM EXPOSURE: frostbite
LONG TERM EXPOSURE: no information is available
EYE CONTACT:
SHORT TERM EXPOSURE: frostbite, blurred vision
LONG TERM EXPOSURE: no information is available
INGESTION:
SHORT TERM EXPOSURE: ingestion of a gas is unlikely
LONG TERM EXPOSURE: ingestion of a gas is unlikely

4. FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

SKIN CONTACT: Wash exposed skin with soap and water.

EYE CONTACT: Flush eyes with plenty of water.

INGESTION: If a large amount is swallowed, get medical attention.

NOTE TO PHYSICIAN: For inhalation, consider oxygen.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire hazard. Containers may rupture or explode if exposed to heat.

EXTINGUISHING MEDIA: carbon dioxide, regular dry chemical

Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile).

6. ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:
Stop leak if possible without personal risk. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.

7 HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.

8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:
HELIUM:
ACGIH (simple asphyxiant)

VENTILATION: Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Eye protection not required, but recommended.

CLOTHING: Protective clothing is not required.

GLOVES: Protective gloves are not required.

RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.
For Unknown Concentrations or Immediately Dangerous to Life or Health -
Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.
Any self-contained breathing apparatus with a full facepiece.

9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: gas
COLOR: colorless
ODOR: odorless
TASTE: tasteless
MOLECULAR WEIGHT: 4.0026
MOLECULAR FORMULA: He
BOILING POINT: -452 F (-269 C)
FREEZING POINT: -458 F (-272 C) @ 26 atm
VAPOR PRESSURE: 1719 mmHg @ -268 C
VAPOR DENSITY (air=1): 0.138

SPECIFIC GRAVITY: Not applicable
DENSITY: 0.1785 g/L @ 0 C
WATER SOLUBILITY: 0.94% @ 0 C
PH: Not applicable
VOLATILITY: Not applicable
ODOR THRESHOLD: Not available
EVAPORATION RATE: Not applicable
VISCOSITY: 0.02012 cP @ 26.8 C
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not applicable
SOLVENT SOLUBILITY:
Insoluble: alcohol

10. STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Protect from physical damage and heat. Containers may rupture or explode if exposed to heat.

INCOMPATIBILITIES: No data available.

HAZARDOUS DECOMPOSITION:
Thermal decomposition products: miscellaneous decomposition products

POLYMERIZATION: Will not polymerize.

11. TOXICOLOGICAL INFORMATION

Not available

12. ECOLOGICAL INFORMATION

Not available

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:
PROPER SHIPPING NAME: Helium, compressed
ID NUMBER: UN1046
HAZARD CLASS OR DIVISION: 2.2
LABELING REQUIREMENTS: 2.2

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:
SHIPPING NAME: Helium, compressed
UN NUMBER: UN1046
CLASS: 2.2

15. REGULATORY INFORMATION

U.S. REGULATIONS:
CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30): Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):
ACUTE: Yes
CHRONIC: No
FIRE: No
REACTIVE: No
SUDDEN RELEASE: Yes

SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.

OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.

STATE REGULATIONS:
California Proposition 65: Not regulated.

CANADIAN REGULATIONS:
WHMIS CLASSIFICATION: A.

NATIONAL INVENTORY STATUS:
U.S. INVENTORY (TSCA): Listed on inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CANADA INVENTORY (DSL/NDSL): Not determined.

16. OTHER INFORMATION

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Material Safety Data Sheet

Airgas

Argon

Section 1. Chemical product and company identification

Product Name : Argon

Supplier : AIRGAS INC., on behalf of its subsidiaries
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

Product use : Synthetic/Analytical chemistry.

MSDS# : 1004

Date of Preparation/Revision : **3/30/2005.**

In case of emergency : 1-800-949-7937

Section 2. Composition, Information on Ingredients

Name	CAS number	% Volume	Exposure limits
Argon	7440-37-1	100	

Section 3. Hazards identification

Physical state : Gas. (COLORLESS, ODORLESS INERT GAS)

Emergency overview : Warning!
CONTENTS UNDER PRESSURE.
Do not puncture or incinerate container.
Contact with rapidly expanding gases or liquids can cause frostbite.

Routes of entry : Inhalation

Potential acute health effects

Eyes : No known significant effects or critical hazards.

Skin : No known significant effects or critical hazards.

Inhalation : Acts as a simple asphyxiant.

Ingestion : Ingestion is not a normal route of exposure for gases

Potential chronic health effects : **CARCINOGENIC EFFECTS** Not available.
MUTAGENIC EFFECTS Not available.
TERATOGENIC EFFECTS: Not available.

Medical conditions aggravated by overexposure : Acute or chronic respiratory conditions may be aggravated by overexposure to this gas.

See toxicological Information (section 11)

Section 4. First aid measures

No action shall be taken involving any personal risk or without suitable training.If fumes are still suspected to be present, the rescuer should wear an appropriate mask or a self-contained breathing apparatus.It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Frostbite : Try to warm up the frozen tissues and seek medical attention.

Inhalation : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire fighting measures

Flammability of the product : Non-flammable.

Fire fighting media and instructions : Use an extinguishing agent suitable for surrounding fires.

If involved in fire, shut off flow immediately if it can be done without risk. Apply water from a safe distance to cool container and protect surrounding area.

No specific hazard.

Special protective equipment for fire-fighters : Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Shut off gas supply if this can be done safely. Isolate area until gas has dispersed.

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 7. Handling and storage

Handling : Do not puncture or incinerate container. High pressure gas. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

Never allow any unprotected part of the body to touch uninsulated pipes or vessels that contain cryogenic liquids. Prevent entrapment of liquid in closed systems or piping without pressure relief devices. Some materials may become brittle at low temperatures and will easily fracture.

Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).

Section 8. Exposure Controls, Personal Protection

Engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

Personal protection

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

When working with cryogenic liquids, wear a full face shield.

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

The applicable standards are (US) 29 CFR 1910.134 and (Canada) Z94.4-93

Hands : Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Insulated gloves suitable for low temperatures

Personal protection in case of a large spill : A self-contained breathing apparatus should be used to avoid inhalation of the product.

Consult local authorities for acceptable exposure limits.

Section 9. Physical and chemical properties

Molecular weight : 39.95 g/mole

Molecular formula : Ar

Boiling/condensation point : -185.7°C (-302.3°F)

Melting/freezing point : -189.2°C (-308.6°F)

Critical temperature : -122.4°C (-188.3°F)

Vapor density : 1.38 (Air = 1)

Specific Volume (ft^3/lb) : 9.70874

Gas Density (lb/ft^3) : 0.103

Physical chemical comments : Not available.

Section 10. Stability and reactivity

Stability and reactivity : The product is stable.

Section 11. Toxicological information

Other toxic effects on humans : No specific information is available in our database regarding the other toxic effects of this material for humans.

Specific effects

Carcinogenic effects : No known significant effects or critical hazards.

Mutagenic effects : No known significant effects or critical hazards.

Reproduction toxicity : No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity of the products of biodegradation : The product itself and its products of degradation are not toxic.

Environmental fate : Not available.

Environmental hazards : No known significant effects or critical hazards.

Toxicity to the environment : Not available.

Section 13. Disposal considerations

Product removed from the cylinder must be disposed of in accordance with appropriate Federal, State, local regulation.Return cylinders with residual product to Airgas, Inc.Do not dispose of locally.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT Classification	UN1006	ARGON, COMPRESSED	2.2	Not applicable (gas).		**Limited quantity** Yes.
	UN1951	Argon, refrigerated liquid				**Packaging instruction** **Passenger Aircraft** Quantity limitation: 75 kg

Argon						
						Cargo Aircraft Quantity limitation: 150 kg
TDG Classification	UN1006 UN1951	ARGON, COMPRESSED Argon, refrigerated liquid	2.2	Not applicable (gas).		**Explosive Limit and Limited Quantity Index** 0.125 **Passenger Carrying Road or Rail Index** 75 **Special provisions** 42
Mexico Classification	UN1006 UN1951	ARGON, COMPRESSED Argon, refrigerated liquid	2.2	Not applicable (gas).		-

Section 15. Regulatory information

United States

U.S. Federal regulations : TSCA 8(b) inventory: argon

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: argon
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: argon: Sudden Release of Pressure

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 accidental release prevention: No products were found.

Clean air act (CAA) 112 regulated flammable substances: No products were found.

Clean air act (CAA) 112 regulated toxic substances: No products were found.

State regulations : Pennsylvania RTK: argon: (generic environmental hazard)
Massachusetts RTK: argon
New Jersey: argon

Canada

WHMIS (Canada) : Class A: Compressed gas.

CEPA DSL: argon

Section 16. Other information

United States

Label Requirements : CONTENTS UNDER PRESSURE.

Canada

Label Requirements : Class A: Compressed gas.

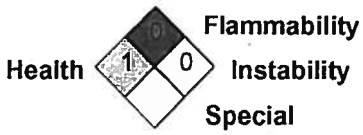
Hazardous Material Information System (U.S.A.) :

	1
Fire hazard	0
Reactivity	0
Personal protection	C

liquid:

	3
Fire hazard	0
Reactivity	0
Personal protection	x

National Fire Protection Association (U.S.A.) :



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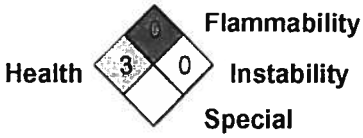


Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Material Safety Data Sheet

Airgas

Acetylene

Section 1. Chemical product and company identification

Product Name : Acetylene

Supplier : AIRGAS INC., on behalf of its subsidiaries
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

Product use : Synthetic/Analytical chemistry.

MSDS# : 001001

Date of Preparation/Revision : **4/11/2005.**

In case of emergency : 1-800-949-7937

Section 2. Composition, Information on Ingredients

Name	CAS number	% Volume	Exposure limits
Acetylene	74-86-2	100	**NIOSH REL (United States, 6/2001).** CEIL: 2662 mg/m³ Form: All forms CEIL: 2500 ppm Form: All forms

Section 3. Hazards identification

Physical state : Gas.

Emergency overview : Warning!

FLAMMABLE GAS.
CONTENTS UNDER PRESSURE.
CAUSES DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, CENTRAL NERVOUS SYSTEM.
VAPOR MAY CAUSE FLASH FIRE.

Keep away from heat, sparks and flame. Do not puncture or incinerate container. Keep container closed. Use only with adequate ventilation.

Contact with rapidly expanding gases can cause frostbite.

Routes of entry : Inhalation

Potential acute health effects

Eyes : No known significant effects or critical hazards.

Skin : No known significant effects or critical hazards.

Inhalation : Acts as a simple asphyxiant.

Ingestion : Ingestion is not a normal route of exposure for gases

Potential chronic health effects : **CARCINOGENIC EFFECTS** Not available.
MUTAGENIC EFFECTS Not available.
TERATOGENIC EFFECTS: Not available.

Medical conditions aggravated by overexposure : Acute or chronic respiratory conditions may be aggravated by overexposure to this gas.

See toxicological Information (section 11)

Section 4. First aid measures

No action shall be taken involving any personal risk or without suitable training.If fumes are still suspected to be present, the rescuer should wear an appropriate mask or a self-contained breathing apparatus.It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Frostbite : Try to warm up the frozen tissues and seek medical attention.

Inhalation : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire fighting measures

Flammability of the product : Flammable.

Auto-ignition temperature : 304.85°C (580.7°F)

Flash point : Closed cup: -18.15°C (-0.7°F).

Flammable limits : Lower: 2.5% Upper: 82%

Products of combustion : These products are carbon oxides (CO, CO_2).

Fire hazards in presence of various substances : Extremely flammable in presence of open flames, sparks and static discharge, of heat, of oxidizing materials.

Explosion hazards in presence of various substances : Explosive in presence of heat.

Fire fighting media and instructions : In case of fire, use water spray (fog), foam, dry chemicals, or CO_2.

If involved in fire, shut off flow immediately if it can be done without risk. Apply water from a safe distance to cool container and protect surrounding area.

Extremely flammable. Gas may accumulate in confined areas, travel considerable distance to source of ignition and flash back causing fire or explosion.

Special protective equipment for fire-fighters : Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Shut off gas supply if this can be done safely. Isolate area until gas has dispersed.

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 7. Handling and storage

Handling : Keep container closed. Use only with adequate ventilation. Keep away from heat, sparks and flame. To avoid fire, minimize ignition sources. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Do not puncture or incinerate container. High pressure gas. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).

Section 8. Exposure Controls, Personal Protection

Engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. The engineering controls also need to keep gas, vapor or dust concentrations below any explosive limits. Use explosion-proof ventilation equipment.

Personal protection

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

The applicable standards are (US) 29 CFR 1910.134 and (Canada) Z94.4-93

Hands : Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Personal protection in case of a large spill : A self-contained breathing apparatus should be used to avoid inhalation of the product.

Consult local authorities for acceptable exposure limits.

Section 9. Physical and chemical properties

Molecular weight : 26.04 g/mole

Molecular formula : C2-H2

Boiling/condensation point : Not available.

Melting/freezing point : Sublimation temperature: -81.8°C (-115.2°F)

Critical temperature : 35.3°C (95.5°F)

Vapor pressure : 635 psig

Vapor density : 0.9 (Air = 1)

Specific Volume (ft^3/lb) : 14.7059

Gas Density (lb/ft^3) : 0.068

Physical chemical comments : Not available.

Section 10. Stability and reactivity

Stability and reactivity : The product may undergo hazardous decomposition, condensation or polymerization, it may react violently with water to emit toxic gases or it may become self-reactive under conditions of shock or increase in temperature or pressure.

Incompatibility with various substances : Extremely reactive or incompatible with oxidizing agents

Section 11. Toxicological information

Chronic effects on humans : Causes damage to the following organs: upper respiratory tract, central nervous system (CNS).

Other toxic effects on humans : No specific information is available in our database regarding the other toxic effects of this material for humans.

Specific effects

Carcinogenic effects : No known significant effects or critical hazards.

Mutagenic effects : No known significant effects or critical hazards.

Acetylene

Reproduction toxicity : No known significant effects or critical hazards.

Section 12. Ecological information

Products of degradation : These products are carbon oxides (CO, CO_2) and water.

Toxicity of the products of biodegradation : The product itself and its products of degradation are not toxic.

Environmental fate : Not available.

Environmental hazards : No known significant effects or critical hazards.

Toxicity to the environment : Not available.

Section 13. Disposal considerations

Product removed from the cylinder must be disposed of in accordance with appropriate Federal, State, local regulation.Return cylinders with residual product to Airgas, Inc.Do not dispose of locally.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT Classification	UN1001	ACETYLENE, DISSOLVED	2.1	Not applicable (gas).		**Limited quantity** Yes. **Packaging instruction** **Passenger Aircraft** Quantity limitation: Forbidden. **Cargo Aircraft** Quantity limitation: 15 kg
TDG Classification	UN1001	ACETYLENE, DISSOLVED	2.1	Not applicable (gas).		**Explosive Limit and Limited Quantity Index** 0 **Passenger Carrying Ship Index** 75 **Passenger Carrying Road or Rail Index** Forbidden **Special provisions** 38, 42

Acetylene						
Mexico Classification	UN1001	ACETYLENE, DISSOLVED	2.1	Not applicable (gas).		-

Section 15. Regulatory information

United States

U.S. Federal regulations : TSCA 8(b) inventory: Acetylene
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Acetylene
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Acetylene: Fire hazard, reactive, Sudden Release of Pressure, Immediate (Acute) Health Hazard
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 accidental release prevention: Acetylene
Clean air act (CAA) 112 regulated flammable substances: Acetylene
Clean air act (CAA) 112 regulated toxic substances: No products were found.

State regulations : Pennsylvania RTK: Acetylene: (generic environmental hazard)
Massachusetts RTK: Acetylene
New Jersey: Acetylene

Canada

WHMIS (Canada) : Class A: Compressed gas.
Class B-1: Flammable gas.
Class F: Dangerously reactive material.
CEPA DSL: Acetylene

Section 16. Other information

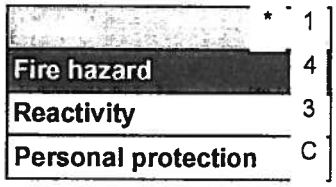
United States

Label Requirements : FLAMMABLE GAS.
CONTENTS UNDER PRESSURE.
CAUSES DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, CENTRAL NERVOUS SYSTEM.
VAPOR MAY CAUSE FLASH FIRE.

Canada

Label Requirements : Class A: Compressed gas.
Class B-1: Flammable gas.
Class F: Dangerously reactive material.

Hazardous Material Information System (U.S.A.) :



National Fire Protection Association (U.S.A.) :

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