

# OFFICE OF THE CITY CLERK

Safeguard all official records of the City. Conduct municipal elections and oversee legislative administration. Provide reliable, accurate, and timely information to the City Council, staff, and the general public. **Steven R. Jones** Mayor

John R. O'Neill Mayor Pro Tem - District 2

**George S. Brietigam** Council Member - District 1

**Diedre Thu-Ha Nguyen** Council Member - District 3

Patrick Phat Bui

Council Member - District 4

**Stephanie Klopfenstein** Council Member - District 5

**Kim B. Nguyen** Council Member - District 6

October 12, 2021

Requester: SHANNON CASTAGNO

Company: Environmental Support Services

Re: 12691 Monarch Dr.

Dear Ms. Castagno,

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. The City does not provide records on spills, leaks and clean-up, as that information is provided through the County of Orange Health Department.

Sincerely,

Amanda Pollock
City of Garden Grove
City Clerk's Office



# **Hazardous Material Disclosure**

Business Information / Chemical Inventory / Business Emergency Plan

GARDEN GROVE FIRE DEPARTMENT 11301 Acacia parkway Garden Grove, CA 92840 Bus. (714) 741-5600 Fax (714) 741-5640 Hazardous Materials Coordinator (714) 741-5636

ency Plan	ROEN GROUN
	SUPE /
Date: 2/10	FIRE /

Address: 12691 MONARCH ST	File No: <u>635</u>
Occupant or DBA: EL COM SOLUTIONS	
Owner/Manager: RENE HAVEK	Phone: 714 23 0 6138
California Health and Safety Code, Section 6.95, you are required to properly complete the B required to return the BEP packet, Hazardous Materials Disclosure Forms, and all material Garden Grove Fire Department. HazMat Coord. (714) 741-5636	tusiness Emergency Plan (BMP) packet. You are safety data sheets within fifteen (15) days to the
An inspection at the above location/occupancy revealed the following violation(s):	
Violation(s): CA Health and Salety Gode Chapter 6.95, Article 1 and Title 19, §2729 et seo	,, California Code of Regulations (CCR)
Complete Hazardous Materials Disclosure packet, HSC Chapter 6.95, Title 19 Div 2 Chapter 3, 6 Failure to submit a Business Emergency Plan. [HSC 25505(a)(1)]; CFC 8001.3.2 Failure to review and/or revise the Business Emergency Plan as required [HSC 25505(b)&(c)] Chemical inventory is incomplete and/or requires update. [HSC 25509] The Emergency Response Plan is inadequate and/or does not address the following issues a [HSC 25504(b)&(c)] Notification Procedures Mitigation Procedures Evacuation Procedures Employee Training Business Owner/Operator page is incomplete or needs to be updated. [HSC 25509] Failure to provide name, title, and 24-hour number of emergency contact(s). [HSC 25509(a)(7)] Site Map is incomplete or insufficient. [HSC 25509] Failure to report a release or threatened release. [HSC 25507] Failure to report a change in business or chemical inventory within 30 days of the following even 100% or more increase in the quantity of a disclosed material Addition of a previously undisclosed material Change in business address Change in business ownership Change of business name Other (See cemments below):	cFC 8001.3.2  and shall be immediately revised and resubmitted:  t(s): [HSC 25510]
Violation(s): Galifornia Fire Code 2001, Articles 79 & 80, Title 19 Part 9, California Code of	Regulations (CCR)
Provide for secondary containment for hazardous materials liquids and solids (CFC 8003.1.3.3)  Provide spill control for hazardous materials liquids (CFC 8003.1.3.2)  Provide approved cabinet if more than 10 gallons of flammable liquids (CFC 7902.5)  Provide placarding and signs (NFPA 704, CFC Article 79 §7901.9, Article 80 §8001.7-8)  No Violations Found  Additional Violations and/or Notes:  ASCYLLIVELS HETYLENE / HUBBL  POLY WELLC ISOCYANATE  POLY ULETHAUE FOAM JESIN	
ll d	
Responsible Party: Re-inspection	
the above are violations of California laward require in mediate correction. Failure to com-	ect violations is subject to civil penalties.
Fire Dept. Inspector: 1. MACIAS ID #: 80	018
Condition Upon Re-inspection:	Date:
TE 4000 - 1 - (05/00)	



# FIRE SAFETY SURVEY GARDEN GROVE FIRE DEPARTMENT

11301 Acacia Parkway, Garden Grove, CA 92842 Bus 714-741-5600 Fax 714-741-5640 File # 6350 Fire District 2414

Inspector E5 Shift A

Next Insp 3 / 2008

Occupant or DBA	WHEELCAR	F-QCCATEDO / /	ATEM SOWT	10AS Business	Phone	714 230-6138
Address	12691 MONA	RCH St		Suite	Zip	92841
<b>Property Owner</b>	PALA LLC				Phone	714 230-6122
<b>Emergency Contact</b>	RENE HAYE	K			Phone	714 231-7291
Group	Load	Sprinklers F/P/N	F 5	yr. Cert. 11/06/2	2003	Haz Mat
Fire Permits	elyene Hel	was progane	2×55"5	2 Famil's	og Back R	જે <i>લ્ટ</i> ડ
Provide haza  EXITS  Provide appro Remove locks Remove exit c Location Remove exit o	NEED IN	TO BE DISCIOSURE 2/5/09	Post m Remov Remov ELECTR Discont Keep 36	BLY OCCUPANG aximum occupancy e combustible deco e storage under sta CAL SAFETY F inue use of extensi 0" clear for access i (05.3)	load sign ( rative mate irway (CFC PRE-CAU on cords (C in front of e	orial (CFC 807.1.2) 315.2.2) ITION: CFC 605.6)
Provide illumin			Locatio	SAFETY PRE-	CALITIO	
ACCESS			Comple	te Hazardous Mate	rials Disclo	
Provide outside Kno	_	5.1)	714-741	-5636 (CFC 2701.5	5.1)	•
Rene H	ayek	tus access (CFC 503.4)	Provide liquids (	approved cabinet i CFC 3404.3.4.3)	f more than	10 gal. flammable
FIR cell	1	D SYS. 2_40BC _K (CFC 906.1)	Provide	approved safety co CFC 3404.3.1)	ntainers(s)	for flammable
□		EL com s	systems.	ige18" below	sprinklers	or 2' from ceiling
	יייסח שהםאה כסו	12691 Me	DANARCH	npressed gas cy	inders (CF	C 3003.5.3)
Service auto-extingu	ishing system s	1241111	1 /	iness License 6)	_Fire Depa	rtment Permit
5 yr certification on s	prinkler/standp	Needs pr	ACKEt	·		
ADDITIONAL VIOL				ATIONS	<u></u>	
10 INSPECTION 1	10025	Be there 10:00 mm	Opposition .		<u> </u>	
El aux au	C344 C	Betoke		1		
	STEM S			NELCOM ?		INSTRUMENT
Rusiness representative si						700 PALA IR.
Business representative signature	tor ID # 2			Da		
· .				Da	te	
Cleared LIC VOC	스 🔲 Mailbacl	k card due// 🔲 R	Re-inspection date	/	Final Not	ice / /

# **GARDEN GROVE**



# FIRE DEPARTMENT

# HAZARDOUS MATERIALS DISCLOSURE PROGRAM

REPORTING FORMS PACKET

SHORT VERSION

FOR OFFICIAL USE ONLY			
FACILITY ID NO. 6350			
BUSINESS NAME EL-COM			
BUSINESS ADDRESS 12691 MONARCH			
APPROVED BY P. MACAS DATE 3/4/09			
NEW BUSINESS YES NO UPDATE			
PICK 4D BUSLIST CALARP: CUPA: GIS			
FEE			



# CITY OF GARDEN GROVE FIRE DEPARTMENT

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

Hazardous Materials Business Information Form

	Page	of	3
BUSINESS INFORMATION			
FACILITY # 3 0 0 3 5 BEGINNING DATE 2-20-09	1 ENDING	DATE 31-0	3
EL-COM CABLETEK		230 G	. 5 100
BUSINESS SITE ADDRESS 12691 MONARCH ST			6
GARDEN GROVE 7 STATE CA	8 ZIP Q	2841	9
DUN & BRADSTREET 047449038 10 SIC CODE (4 DIGIT #)	11 FIRE DIS	STRICT	12
ORANGE			13
EL-COM CABLETEK 1714	230 C	000	15
BUSINESS OWNER			
OWNER NAME  EL-Rob  OWNER MAILING ADDRESS	16 OWNER F	230-6	100
12691 MONDECH ST  19 STATE	20 ZIP		21
CARDEN GROUE CA ENVIRONMENTAL CONTACT		2841	
CONTACT NAME REDE HAVEK CONTACT MAILING ADDRESS	22 CONTACT	- 231-75	
19691 MONARCH ST			24
GARDED GROUE CA	26 ZIP 92	841	27
PRIMARY EMERGENCY CONTACTS  NAME 28 NAME	SECO	NDARY	33
	JEREL	12	33
FOCILITIES MGR CONTROLLE BUSINESS PHONE 30 BUSINESS PHONE	_		35
714-23C-6 3  714-230-	6109		36
PAGER# 32 PAGER# 1 1 / 0			37
ADDITIONAL LOCALLY COLLECTED INFORMATION	1		
DESCRIBE THE TYPE OF BUSINESS OPERATION: MACHINE SHOP / CABLE ASSEMBLY	38 TOTAL# (	OF EMPLOYEES	39
BILLING ADDRESS (IF DIFFERENT FROM ABOVE) 12691 MONARCH ST. G.G. 92841	40 ATTENTIO	SOUNT IN	41
PROPERTY OWNER NAME  42 ADDRESS  12691 MONDROM GE	43 PHONE	230-61	44 • O
Certification: Based on my inquiry of those individuals responsible for obtaining the information, have personally examined and am familiar with the information submitted and believe the information	I certify under is true, accu	er penalty of la rate, and comp	w that I lete.
SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE	45 DATE	2.09	46
NAME OF SIGNER (print)  AT NAME OF DOCUMENT PREPARER (print)  AT NAME OF DOCUMENT PREPARER (print)	int SIEK		49
	DAUAG	ER	50
Business Info Form 1 – 03/06/03		8547	



# HAZARDOUS MATERIALS INVENTORY FORM

FORM 3

DEPARTME	
ADD DELETE REVISED 1	Page of 2
FACILITY ID# 3 0 0 3 5 38 BUSINESS	NAME - COM CABLETEK 3
- 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1	INFORMATION
CHEMICAL LOCATION₀	4
SU OF BUILDING DUTSING IN THE SHE	1 105/00 THE BUILDING MACKING Strong
CONFIDENTIAL LOCATION Yes 700 5 MAP #	6 GRID # S A 5 A 7
II. CHEMICAL	INFORMATION
CHEMICAL NAME	WASTE Yes 8 TRADE SECRET Yes No 11
PCETYLENE COMMON NAME	* If EPCRA see instructions  9 An EHS Chemical Yes No 12
PCETY LENE	"If EHS is "Yes", all amounts must be LBS
74 - 86-2 10 FIRE CODE HAZARD CLASSES (supplied by	y GGFD) 13
TYPE (Check one item only) a. PURE b. MIXTURE c. WASTE	14 RADIOACTIVE Yes PNo 15 CURIES 16
	ED HAZARD a. FIRE b. REACTIVE c. PRESSURE RELEASE 18  d. ACUTE HEALTH e. CHRONIC HEALTH
AVERAGE DAILY 2 0 CUFT 19 MAXIMUM DAILY 32 CUFT 20	ANNUAL WASTE AMOUNT 21 STATE WASTE CODE 22
AMOUNT 20 CUFT AMOUNT 22 CUFT  UNITS 1 a. GALLONS 1 CUBIC FEET 23 DAYS ON SITE	24 LARGEST CONTAINER 25
C. POUNDS d. TONS  "If EHS, amount must be in pounds.  365	141 CUST
STORAGE CONTAINER . ABOVEGROUND TANK . e. PLASTIC DRUM	☐ i. VAT ☐ CYLINDER ☐ q. TANK WAGON 26
(Check all that apply)	. BAG(S) O PLASTIC CONTAINER . TOTE BIN
d STEEL DRUM h. CARBOY	I. BOX(S)
STORAGE TEMPERATURE  a. AMBIENT  b. ABOVE A  STORAGE TEMPERATURE  b. ABOVE A	MRIENI C. BELOW AMBIENI
%WT HAZARDOUS COMPONENT (For mixture	
1 29	30 Yes No 31 32
	30 Yes No 31 32
2 29	
3 29	
4 29	
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% PLACARDING	S INFORMATION
UNDOT# UNDOT#	NFPA 704 HAZARD DIAMOND FIRE (RED)
Refer to shipping papers or MSDS	HEALTH A REACTIVE (YELLOW)
DOT HAZARD CLASS 49 CFR 172.101	SPECIAL WHITE
Neier to shipping papers of Misos	HAZARD W OX/W
EPCRA YES NO	35
x	MAKE AS MANY COPIES OF CHEMICAL
If EPCRA, Please Sign Here	36 INVENTORY FORM AS NEEDED





# MATERIAL SAFETY DATA SHEET

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**POLAR CRYOGENICS** 

2734 SE Raymond

Portland, OR 97202

Information: 1-800-426-0689

**Emergency Contact:** 

CHEMTREC 1-800-424-9300

Calls Originating Outside the US:

703-527-3887 (Collect Calls Accepted)

SUBSTANCE: ACETYLENE

TRADE NAMES/SYNONYMS:

MTG MSDS 1; ACETYLENE; ETHYNE; WELDING GAS; ACETYLEN; ETHINE; NARCYLEN;

VINYLENE; UN 1001; C2H2; 00232566; RTECS A09600000

CHEMICAL FAMILY: hydrocarbons, aliphatic

**CREATION DATE:** May 22 2007 **REVISION DATE:** Dec 11 2008

## 2. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: ACETYLENE CAS NUMBER: 74-86-2 PERCENTAGE: 100

#### 3. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=4 REACTIVITY=3

#### **EMERGENCY OVERVIEW:**

**COLOR:** colorless

PHYSICAL FORM: gas

**ODOR:** sweet odor

MAJOR HEALTH HAZARDS: central nervous system depression, difficulty breathing

**PHYSICAL HAZARDS:** May explode when heated. Flammable gas. May cause flash fire. Electrostatic charges may be generated by flow, agitation, etc. May polymerize. Containers may rupture or explode.

#### POTENTIAL HEALTH EFFECTS:

**INHALATION:** 

SHORT TERM EXPOSURE: nausea, vomiting, chest pain, wheezing, headache, drowsiness, dizziness,







loss of coordination, bluish skin color, suffocation, lung congestion, coma LONG TERM EXPOSURE: no information on significant adverse effects

**SKIN CONTACT:** 

**SHORT TERM EXPOSURE:** rash

LONG TERM EXPOSURE: no information is available

**EYE CONTACT:** 

SHORT TERM EXPOSURE: no information on significant adverse effects

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: Severe explosion hazard. Vapor/air mixtures are explosive. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion.

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. 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. 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: Stop leak if possible without personal risk. Let burn unless leak can be stopped immediately. For smaller tanks or cylinders, extinguish and isolate from other flammables. Evacuation radius: 800 meters (1/2 mile). Do not attempt to extinguish fire unless flow of material can be stopped first. Flood with fine water spray. Cool containers with water spray until well after the fire is out. Apply water from a protected location or from a safe distance. Avoid



Page 3 of 7

inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Evacuate if fire gets out of control or containers are directly exposed to fire. Evacuation radius: 500 meters (1/3 mile). Consider downwind evacuation if material is leaking. Stop flow of gas.

LOWER FLAMMABLE LIMIT: 2.5% UPPER FLAMMABLE LIMIT: 100% AUTOIGNITION: 581 F (305 C)

#### 6. ACCIDENTAL RELEASE MEASURES

#### **OCCUPATIONAL RELEASE:**

Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Keep unnecessary people away, isolate hazard area and deny entry. Remove sources of ignition. Ventilate closed spaces before entering.

#### 7. HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Protect from physical damage. Store outside or in a detached building. Keep separated from incompatible substances. Store in a cool, dry place. Store in a well-ventilated area. Avoid heat, flames, sparks and other sources of ignition. Grounding and bonding required. Secure to prevent tipping. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.

#### 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

#### **EXPOSURE LIMITS:**

**ACETYLENE:** 

ACGIH (simple asphyxiant)

2500 ppm (2662 mg/m3) NIOSH recommended ceiling

**VENTILATION:** Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. 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, but recommended.

**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 a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: gas

COLOR: colorless ODOR: sweet odor

MOLECULAR WEIGHT: 26.04 MOLECULAR FORMULA: H-C-C-H

**BOILING POINT:** Not available **FREEZING POINT:** Not available **SUBLIMATION POINT:** -119 F (-84 C) **VAPOR PRESSURE:** 760 mmHg @ -84 C

VAPOR DENSITY (air=1): 0.90 SPECIFIC GRAVITY: Not applicable

**DENSITY:** 1.1747 g/L @ 0 C

WATER SOLUBILITY: 0.94% @ 25 C

PH: Not applicable

VOLATILITY: Not applicable
ODOR THRESHOLD: Not available
EVAPORATION RATE: Not applicable

VISCOSITY: 0.010 cP @ 20 C

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not applicable

**SOLVENT SOLUBILITY:** 

Soluble: acetone, benzene, chloroform, ether

#### 10. STABILITY AND REACTIVITY

**REACTIVITY:** May decompose violently on heating. May explode when heated.

**CONDITIONS TO AVOID:** Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.

INCOMPATIBILITIES: metals, halogens, oxidizing materials, metal carbide, reducing agents, halo carbons

#### **HAZARDOUS DECOMPOSITION:**

Thermal decomposition products: oxides of carbon



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**POLYMERIZATION:** Polymerizes with evolution of heat. Avoid contact with curing agents, accelerators, and/or initiators.

#### 11. TOXICOLOGICAL INFORMATION

#### **ACETYLENE:**

TARGET ORGANS: central nervous system

ADDITIONAL DATA: Stimulants such as epinephrine may induce ventricular fibrillation.

#### 12. ECOLOGICAL INFORMATION

#### **FATE AND TRANSPORT:**

**KOW:** 2691.53 (log = 3.44) (estimated from water solubility)

**KOC:** 4508.17 (log = 3.66) (estimated from water solubility)

HENRY'S LAW CONSTANT: 2.8 E -3 atm-m3/mol

**BIOCONCENTRATION:** 3.48 (estimated from water solubility)

AQUATIC PROCESSES: 1.3269231 hours (River Model: 1 m deep, 1 m/s flow, 3 m/s wind)

**ENVIRONMENTAL SUMMARY:** Relatively non-persistent in the environment. Not expected to leach through the soil or the sediment. Accumulates very little in the bodies of living organisms. Highly volatile from water.

#### 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. D003.

# 14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:

PROPER SHIPPING NAME: Acetylene, dissolved

**ID NUMBER: UN1001** 

HAZARD CLASS OR DIVISION: 2.1 LABELING REQUIREMENTS: 2.1

**QUANTITY LIMITATIONS:** 

PASSENGER AIRCRAFT OR RAILCAR: Forbidden

CARGO AIRCRAFT ONLY: 15 kg



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#### CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

SHIPPING NAME: Acetylene, dissolved

**UN NUMBER: UN1001** 

**CLASS: 2.1** 

#### 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 Subpart B): Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart C): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370 Subparts B and C):

ACUTE: Yes CHRONIC: No

FIRE: Yes

REACTIVE: Yes

SUDDEN RELEASE: Yes

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

OSHA PROCESS SAFETY (29 CFR 1910.119): Not regulated.

#### **STATE REGULATIONS:**

California Proposition 65: Not regulated.

## **CANADIAN REGULATIONS:**

WHMIS CLASSIFICATION: ABF

#### 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



# MSDS SUMMARY OF CHANGES 15. REGULATORY INFORMATION

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# HAZARDOUS MATERIALS INVENTORY FORM

FORM 3

FACILITY ID# 3 0 0 3 5    Section
CONFIDENTIAL LOCATION  CONFIDENTIAL LOCATION  CONFIDENTIAL LOCATION  CHEMICAL INFORMATION  CHEMICAL NAME  COMMON NAME  COM
CHEMICAL LOCATION  S.W Of BUILDING DUTSIDE IN THE SHED  CONFIDENTIAL LOCATION Yes No 5 MAP# 6 GRID# 6  CHEMICAL INFORMATION  CHEMICAL NAME  WASTE Yes 8 TRADE SECRET Yes No 1  "If EPCRA see instructions  OMMON NAME  PCETONE  11 CHEMICAL INFORMATION  12 PURP SECRET Yes No 1  13 PURP SECRET Yes No 1  14 EHS is "Yes", all amounts must be LBS
CONFIDENTIAL LOCATION
CONFIDENTIAL EXCATION    Yes   Man   No   No   No   No   No   No   No   N
CHEMICAL NAME    WASTE   Yes   8   TRADE SECRET   Yes   No   1
PCETONE  "If EPCRA see instructions  9 An EHS Chemical Yes No 1  PCETONE  "If EHS is "Yes", all amounts must be LBS
COMMON NAME  9 An EHS Chemical  Yes No 1  1 "If EHS is "Yes", all amounts must be LBS
The second secon
CAS # 10   FIRE CODE HAZARO CLASSES (supplied by GGFD)
TYPE (Check one item pinky)    Dell's Plupe   D. MIXTURE   C. WASTE   14   RADIOACTIVE   Yes   No. 15   CURIES   1
TYPE (Check one item only)  Area, PURE  b. MIXTURE  c. WASTE  17 TO TO TO THE LITTLE AND THE LIT
PHYSICAL STATE   a. SOLID   b. LIQUID   c. GAS   17   FED HAZARD   CATEGORIES   b. REACTIVE   c. PRESSURE RELEASE   CATEGORIES   d. ACUTE HEALTH   e. CHRONIC HEALTH
AVERAGE DAILY AMOUNT 6 9 2 ANNUAL WASTE AMOUNT 21 STATE WASTE CODE 2
UNITS A. GALLONS D. CUBIC FEET 23 DAYS ON SITE 24 LARGEST CONTAINER 2
C. POUNDS d. TONS 365 55 GAL
STORAGE CONTAINER   a ABOVEGROUND TANK   a. PLASTIC DRUM   i. VAT   m CYLINDER   q. TANK WAGON   2   (Check all that apply)   b. UNDERGROUND TANK   f. NONMETALLIC DRUM   l. FIBER DRUM   n. GLASS CONTAINER   r. RAIL CAR
c. TANK INSIDE BLDG g METAL CONTAINER l. BAG(S) p PLASTIC CONTAINER s. TOTE BIN  d STEEL DRUM h. CARBOY l. BOX(S) p. IN MACH OR EQUIP t. OTHER
STORAGE PRESSURE
STORAGE TEMPERATURE   D. ABOVE AMBIENT   C. BELOW AMBIENT   d. CRYOGENIC 2
%WT HAZARDOUS COMPONENT (For mixture or waste only) EHS CAS #
1 29 30 Yes No 31 3
2 29 30 Yes No 31 3
3 29 30 Yes No 31 3
4 29 30 Yes No 31
5 29 30 Yes No 31
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
是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个
UNDOT # UNDOT # O O O O O O O O O O O O O O O O O O
HEALTH . A CELLOMA
DOT HAZARD CLASS (BLUE)  SPECIAL SPECIAL WHITE
EPCRA TYES TO NO 35
MAKE AS MANY COPIES OF CHEMICAL  If EPCRA, Please Sign Here  36 INVENTORY FORM AS NEEDED





# MATERIAL SAFETY DATA SHEET

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATHESON TRI-GAS, INC. Emergency Contact:

150 Allen Road Suite 302 CHEMTREC 1-800-424-9300
Basking Ridge, New Jersey 07920 Calls Originating Outside the US:
Information: 1-800-416-2505 703-527-3887 (Collect Calls Accepted)

SUBSTANCE: ACETONE

#### TRADE NAMES/SYNONYMS:

MTG MSDS 105; DIMETHYLFORMALDEHYDE; DIMETHYLKETAL; DIMETHYL KETONE; BETA-KETOPROPANE; PROPANONE; 2-PROPANONE; PYROACETIC ETHER; B-KETOPROPANE; A-18; A-18-S; A-18-SK; A-11; A-11-S; A-16-P; A-16-S; A-949; A-40; A-20; A-19; A-946; RCRA U002; UN 1090; C3H6O; MAT00140; RTECS AL3150000

CHEMICAL FAMILY: ketones, aliphatic

CREATION DATE: Jan 24 1989 REVISION DATE: Dec 11 2008

#### 2. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: ACETONE CAS NUMBER: 67-64-1 PERCENTAGE: 100

#### 3. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=2 FIRE=3 REACTIVITY=0

# **EMERGENCY OVERVIEW:**

**COLOR:** colorless

PHYSICAL FORM: liquid

ODOR: sweet odor, minty odor, pungent odor, pleasant odor

MAJOR HEALTH HAZARDS: respiratory tract irritation, skin irritation, eye irritation, central nervous

system depression

PHYSICAL HAZARDS: Flammable liquid and vapor. Vapor may cause flash fire.

## POTENTIAL HEALTH EFFECTS:





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#### **INHALATION:**

**SHORT TERM EXPOSURE:** irritation, low body temperature, nausea, stomach pain, difficulty breathing, headache, drowsiness, symptoms of drunkenness, kidney damage, liver damage, coma

LONG TERM EXPOSURE: same as effects reported in short term exposure

SKIN CONTACT:

**SHORT TERM EXPOSURE:** irritation

LONG TERM EXPOSURE: tingling sensation

**EYE CONTACT:** 

**SHORT TERM EXPOSURE:** irritation

LONG TERM EXPOSURE: same as effects reported in short term exposure

**INGESTION:** 

SHORT TERM EXPOSURE: nausea, diarrhea, symptoms of drunkenness, kidney damage, liver damage,

coma

LONG TERM EXPOSURE: no information on significant adverse effects

#### 4. FIRST AID MEASURES

**INHALATION:** It is unlikely that emergency treatment will be required.

**SKIN CONTACT:** Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

**EYE CONTACT:** Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

**INGESTION:** Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately.

**NOTE TO PHYSICIAN:** For ingestion, consider gastric lavage and activated charcoal slurry.

#### 5. FIRE FIGHTING MEASURES

**FIRE AND EXPLOSION HAZARDS:** Severe fire hazard. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Vapor/air mixtures are explosive.

**EXTINGUISHING MEDIA:** alcohol-resistant foam, carbon dioxide, regular dry chemical, water, alcohol-resistant foam

Large fires: Use alcohol-resistant 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



Page 3 of 8

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. 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). Water may be ineffective.

FLASH POINT: -4 F (-20 C) (CC) LOWER FLAMMABLE LIMIT: 2.5% UPPER FLAMMABLE LIMIT: 13% AUTOIGNITION: 869 F (465 C) FLAMMABILITY CLASS (OSHA): IB

#### 6. ACCIDENTAL RELEASE MEASURES

#### **OCCUPATIONAL RELEASE:**

Avoid heat, flames, sparks and other sources of ignition. Remove sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

# 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 1910.106. Grounding and bonding required. Keep separated from incompatible substances.

#### 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

#### **EXPOSURE LIMITS:**

**ACETONE:** 

1000 ppm (2400 mg/m3) OSHA TWA

750 ppm (1780 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993)

1000 ppm (2375 mg/m3) OSHA STEL (vacated by 58 FR 35338, June 30, 1993)

500 ppm ACGIH TWA

750 ppm ACGIH STEL

250 ppm (590 mg/m3) NIOSH recommended TWA 10 hour(s)

**VENTILATION:** Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.





**EYE PROTECTION:** Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**CLOTHING:** Wear appropriate chemical resistant clothing.

**GLOVES:** Wear appropriate chemical resistant gloves.

**RESPIRATOR:** The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.

# 2500 ppm

Any air-purifying half-mask respirator equipped with organic vapor cartridge(s).

Any powered, air-purifying respirator with organic vapor cartridge(s).

Any air-purifying full-facepiece respirator (gas mask) with a chin-style, front-mounted or back-mounted organic vapor canister.

Any supplied-air respirator.

Any self-contained breathing apparatus with a full facepiece.

Emergency or planned entry into unknown concentrations or IDLH conditions -

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

# Escape -

Any air-purifying full-facepiece respirator (gas mask) with a chin-style, front-mounted or back-mounted organic vapor canister.

Any appropriate escape-type, self-contained breathing apparatus.

#### For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: liquid APPEARANCE: clear COLOR: colorless

ODOR: sweet odor, minty odor, pungent odor, pleasant odor

**TASTE:** sweet taste

**MOLECULAR WEIGHT: 58.08** 

MOLECULAR FORMULA: C-H3-C-O-C-H3

**BOILING POINT:** 133 F (56 C) **FREEZING POINT:** -139 F (-95 C) **VAPOR PRESSURE:** 180 mmHg @ 20 C





VAPOR DENSITY (air=1): 2.0

SPECIFIC GRAVITY (water=1): 0.7899

WATER SOLUBILITY: soluble

PH: neutral in solution VOLATILITY: 100%

**ODOR THRESHOLD: 20 ppm** 

**EVAPORATION RATE:** 14.4 (butyl acetate=1)

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

SOLVENT SOLUBILITY:

Soluble: ethanol, ether, chloroform, benzene, oils, dimethylformamide

#### 10. STABILITY AND REACTIVITY

**REACTIVITY:** Stable at normal temperatures and pressure.

**CONDITIONS TO AVOID:** Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.

**INCOMPATIBILITIES:** acids, amines, halogens, halo carbons, oxidizing materials, metal salts, peroxides, combustible materials, bases

#### **HAZARDOUS DECOMPOSITION:**

Thermal decomposition products: oxides of carbon

**POLYMERIZATION:** Will not polymerize.

#### 11. TOXICOLOGICAL INFORMATION

#### **ACETONE:**

**IRRITATION DATA:** 500 ppm eyes-human; 395 mg open skin-rabbit mild; 500 mg/24 hour(s) skin-rabbit mild; 20 mg/24 hour(s) eyes-rabbit moderate; 10 ul eyes-rabbit mild; 186300 ppm eyes-human mild; 20 mg eyes-rabbit severe

TOXICITY DATA: 50100 mg/m3 inhalation-rat LC50; >9400 ul/kg skin-guinea pig LD50; 5800 mg/kg oral-rat LD50

CARCINOGEN STATUS: ACGIH: A4 -Not Classifiable as a Human Carcinogen

**LOCAL EFFECTS:** 

Irritant: inhalation, skin, eye
ACUTE TOXICITY LEVEL:
Moderately Toxic: inhalation
Slightly Toxic: ingestion

TARGET ORGANS: central nervous system

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: respiratory disorders, skin disorders and

allergies

MUTAGENIC DATA: Available.





## REPRODUCTIVE EFFECTS DATA: Available.

ADDITIONAL DATA: Alcohol may enhance the toxic effects.

#### 12. ECOLOGICAL INFORMATION

#### **ECOTOXICITY DATA:**

FISH TOXICITY: 4 ug/L 96 hour(s) LC50 (Mortality) Harlequinfish, red rasbora (Rasbora heteromorpha)

INVERTEBRATE TOXICITY: 35 ug/L 48 hour(s) EC50 (Immobilization) Water flea (Daphnia pulex)

ALGAL TOXICITY: <14 ug/L 11-14 hour(s) MATC (Growth) Red algae (Champia parvula)

OTHER TOXICITY: 0.21 ug/L 96 week(s) LC50 (Mortality) Frog (Rana hexadactyla)

#### **FATE AND TRANSPORT:**

BIOCONCENTRATION: 100000 ug/L 32 hour(s) BCF (Residue) Fathead minnow (Pimephales promelas)

4.3 ug/L

**ENVIRONMENTAL SUMMARY:** Highly toxic to aquatic life.

#### 13. DISPOSAL CONSIDERATIONS

Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): U002. Dispose in accordance with all applicable regulations.

## 14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:

PROPER SHIPPING NAME: Acetone

**ID NUMBER: UN1090** 

**HAZARD CLASS OR DIVISION: 3** 

**PACKING GROUP: II** 

**LABELING REQUIREMENTS: 3** 

# CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

SHIPPING NAME: Acetone UN NUMBER: UN1090

CLASS: 3

PACKING GROUP/CATEGORY: II

#### 15. REGULATORY INFORMATION







#### **U.S. REGULATIONS:**

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):

**ACETONE:** 5000 LBS RQ

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart B): Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart C): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370 Subparts B

and C):
ACUTE: Yes
CHRONIC: No
FIRE: Yes

REACTIVE: No

SUDDEN RELEASE: No

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

OSHA PROCESS SAFETY (29 CFR 1910.119): Not regulated.

**STATE REGULATIONS:** 

California Proposition 65: Not regulated.

CANADIAN REGULATIONS: WHMIS CLASSIFICATION: BD2

**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

#### MSDS SUMMARY OF CHANGES

5. FIRE FIGHTING MEASURES

15. REGULATORY INFORMATION

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# HAZARDOUS MATERIALS INVENTORY FORM

FORM 3

DEPARTME	Davis of 2
ADD DELETE REVISED 1	Page of 2
FACILITY ID# 3 0 0 3 5 38 BUSINESS F	CON CABLETEK
- A Alagorithm 1. 187 -	NFORMATION
CHEMICAL LOCATION	
CONFIDENTIAL LOCATION TYPE STATE 5 MAP#	STHE BUILDING TACHINE SHOP
EPCRA L 188	
II. CHEMICAL	INFORMATION
CHEMICAL NAME	WASTE Yes 8 TRADE SECRET Yes No 11
COMMON NAME	9 An EHS Chemical Yes No 12
OKYGEN	*If EHS is "Yes", all amounts must be LBS
CAS# 10 FIRE CODE HAZARD CLASSES (supplied by	GGFD) 13
TYPE (Check one item only) . a. PURE . b. MIXTURE . c. WASTE	14 RADIOACTIVE Yes No 15 CURIES 16
PHYSICAL STATE     a. SOLID   b. LIQUID   CAS     CAS     CAS     CAS	ED HAZARD 3. FIRE 5. REACTIVE 5. PRESSURE RELEASE 18
(Check one item only)	d. ACUTE HEALTH e. CHRONIC HEALTH
AVERAGE DAILY AMOUNT 19 MAXIMUM DAILY 2565FT 20	ANNUAL WASTE AMOUNT 21 STATE WASTE CODE 22
UNITS a. GALLONS b. CUBIC FEET 23 DAYS ON SITE	24 LARGEST CONTAINER 25
C. POUNDS  d. TONS  365	282 CUFT
STORAGE CONTAINER	☐ i, VAT ☐ CYLINDER ☐ q. TANK WAGON 26 ☐ I. FIBER DRUM ☐ n. GLASS CONTAINER ☐ r. RAIL CAR
(Check all that apply)	I. BAG(S) O PLASTIC CONTAINER S. TOTE BIN
d STEEL DRUM h. CARBOY	L BOX(S) D. IN MACH OR EQUIP L OTHER
STORAGE PRESSURE a. AMBIENT D. b. ABOVE AI	MBIENI C. BELOW AMBIENI
STORAGE TEMPERATURE S. AMBIENT D. ABOVE A	
%WT HAZARDOUS COMPONENT (For mixture	30 Yes No 31 32
1 29	1163 1160 11
2 29	- Inc
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%	
PLACARDING	INFORMATION
UNDOT# UNDOT# Refer to shipping papers or MSDS	NFPA 704 HAZARD DIAMOND FIRE (RED)
	REACTIVE A CYCLI CASA
DOT HAZARD CLASS 42 CFR 172 101 Refer to shipping papers or MSDS	HEALTH → Q (YELLOW) .
Refer to shipping papers or MSDS	SPECIAL WHITE OX/W. 37
EPCRA YES NO	35
×	MAKE AS MANY COPIES OF CHEMICAL
If EPCRA, Please Sign Here	36 INVENTORY FORM AS NEEDED





# MATERIAL SAFETY DATA SHEET

# 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATHESON TRI-GAS, INC.

150 Allen Road Suite 302

Basking Ridge, New Jersey 07920

Information: 1-800-416-2505

**Emergency Contact:** 

CHEMTREC 1-800-424-9300

Calls Originating Outside the US:

703-527-3887 (Collect Calls Accepted)

SUBSTANCE: OXYGEN, COMPRESSED GAS

#### TRADE NAMES/SYNONYMS:

MTG MSDS 71; OXYGEN; DIOXYGEN; MOLECULAR OXYGEN; OXYGEN MOLECULE; PURE

OXYGEN; UN 1072; LOX; HYPEROXIA; O2; MAT12831; RTECS RS2060000

CHEMICAL FAMILY: inorganic, gas

**CREATION DATE:** Jan 24 1989 **REVISION DATE:** Dec 11 2008

#### 2. COMPOSITION, INFORMATION ON INGREDIENTS

**COMPONENT: OXYGEN, COMPRESSED GAS** 

CAS NUMBER: 7782-44-7 PERCENTAGE: 100

#### 3. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=2 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, chest pain, cough, 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, cough, chest pain, lung damage

**SKIN CONTACT:** 

**SHORT TERM EXPOSURE:** frostbite, blisters

**LONG TERM EXPOSURE:** no information on significant adverse effects

**EYE CONTACT:** 

SHORT TERM EXPOSURE: irritation, frostbite, blurred vision

LONG TERM EXPOSURE: no information on significant adverse effects

**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. Get medical attention.

**SKIN CONTACT:** If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

**EYE CONTACT:** Contact with liquid: Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

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

#### 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.

#### 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.

#### 7. HANDLING AND STORAGE

**STORAGE:** Store and handle in accordance with all current regulations and standards. Protect from physical damage. Avoid heat, flames, sparks and other sources of ignition. Store in a clean, cool, dry place. Store in a well-ventilated area. Store below 125 F. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.

#### 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:** For the gas: Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**CLOTHING:** For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing.

**GLOVES:** Wear insulated gloves.

**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 a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: gas COLOR: colorless





ODOR: odorless TASTE: tasteless

MOLECULAR WEIGHT: 31.9988 MOLECULAR FORMULA: 02

**BOILING POINT:** -297.33 F (-182.96 C) **FREEZING POINT:** -361.1 F (-218.4 C) **VAPOR PRESSURE:** 760 mmHg @ -183 C

VAPOR DENSITY (air=1): 1.43

SPECIFIC GRAVITY (water=1): 1.14 @ -183 C (liquid)

**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

#### 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.

#### 11. TOXICOLOGICAL INFORMATION

OXYGEN, COMPRESSED GAS: MUTAGENIC DATA: Available.

REPRODUCTIVE EFFECTS DATA: Available.

#### 12. ECOLOGICAL INFORMATION



Not available

#### 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.

#### 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



SHIPPING NAME: Oxygen, compressed

UN NUMBER: UN1072

**CLASS: 2.2; 5.1** 

#### 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 Subpart B): Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart C): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370 Subparts B and C):

ACUTE: Yes CHRONIC: No FIRE: Yes

**REACTIVE: No** 

SUDDEN RELEASE: Yes

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

OSHA PROCESS SAFETY (29 CFR 1910.119): Not regulated.







## **STATE REGULATIONS:**

California Proposition 65: Not regulated.

<u>CANADIAN REGULATIONS:</u> 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): Listed on DSL.

16. OTHER INFORMATION

# MSDS SUMMARY OF CHANGES

15. REGULATORY INFORMATION

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# HAZARDOUS MATERIALS INVENTORY FORM

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CHEMICAL LOCATION		_		4		
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CONFIDENTIAL LOCATION EPCRA	Yes No 5 MAP#		6 GRID#8 F3	5A '		
是一個特別和	II. CHEMIC	AL INFORMATION	是結構和計畫的表			
CHEMICAL NAME		WASTE [	Yes 8 TRADE SECRET	Yes 🔯 No 11		
COMMON NAME	O N		9 An EHS Chemical	instructions  Yes V No 12		
ARC	300		l	amounts must be LBS		
7440-37	10 FIRE CODE HAZARD CLASSES (supplie	ed by GGFD)		13		
TYPE (Check one item only)	URE D. MIXTURE . c. WASTE	14 RADIOACTIVE	Yes No 15 CU	RIES 16		
PHYSICAL STATE a. So	DLID b. LIQUID Q c. GAS 17	FED HAZARD a. FII		c. PRESSURE RELEASE 18  e. CHRONIC HEALTH		
AVERAGE DAILY		20 ANNUAL WASTE AMOUN	<del></del>	STE CODE 22		
UNITS TIR GALLONS	AMOUNT YD CULT		24 LARGEST CONTAINER	25		
	d. TONS		336 0	OFT		
Part of District Street	ABOVEGROUND TANK . e. PLASTIC DRUM	i. VAT	M CYLINDER	q. TANK WAGON 26		
(Check all that apply) D.	UNDERGROUND TANK  TANK INSIDE BLDG  G. METAL CONTAINI	and the same of th	n. GLASS CONTAINER  o Plastic Container	r. RAIL CAR		
AND AND ADDRESS OF THE PARTY OF	STEEL DRUM h. CARBOY	I. BOX(S)	p. IN MACH OR EQUIP	L OTHER		
STORAGE PRESSURE	a. AMBIENT b. ABO	/E AMBIENT C	BELOW AMBIENT	27		
STORAGE TEMPERATURE	a. AMBIENT b. ABO	/E AMBIENT C	BELOW AMBIENT G	L CRYOGENIC 28		
%WT	HAZARDOUS COMPONENT (For mix	ture 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 pre	sent at greater than 1% by weight if non-carcinogenic, or	0.1% by weight if carcinogenic, at	tach additional sheets of paper capture	ing the required information.		
PLACARDING INFORMATION						
LINDOT #	111 1006	33	NFPA 704 HAZARI	D DIAMOND		
UNDOT# Ref	UN 1006 fer to shipping papers or MSDS		FIRE (RED)	REACTIVE		
	49 CFR 17210	34	HEALTH →	(VEITOM)		
DOT HAZARD CLASS	Refer to shipping papers or MSDS	<u> </u>	(BLUE) SPECIAL	WHITE 37		
EPCRA YES NO	,, ,,	. 35	HAZARD 🔻 🗸	OX/W		
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# MATERIAL SAFETY DATA SHEET

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATHESON TRI-GAS, INC.

150 Allen Road Suite 302

D. -1-:-- D: 1- - N--- I---- 0702

Basking Ridge, New Jersey 07920

Information: 1-800-416-2505

**Emergency Contact:** 

CHEMTREC 1-800-424-9300

Calls Originating Outside the US:

703-527-3887 (Collect Calls Accepted)

SUBSTANCE: ARGON, COMPRESSED

TRADE NAMES/SYNONYMS:

MTG MSDS 5; ARGON; UN 1006; AR; MAT01860; RTECS CF2300000

CHEMICAL FAMILY: non-metallic

PRODUCT USE: industrial

CREATION DATE: Mar 07 1990 REVISION DATE: Dec 11 2008

# 2. COMPOSITION, INFORMATION ON INGREDIENTS

**COMPONENT: ARGON, COMPRESSED** 

CAS NUMBER: 7440-37-1 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,





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dizziness, disorientation, mood swings, 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. Pressurized containers may rupture or explode if exposed to sufficient heat.

**EXTINGUISHING MEDIA:** Use extinguishing agents appropriate for surrounding fire.

Large fires: Use water spray to keep containers cool.

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).

FIRE FIGHTING PROTECTIVE EQUIPMENT: Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.





FLASH POINT: Not available

LOWER FLAMMABLE LIMIT: Not available UPPER FLAMMABLE LIMIT: Not available

AUTOIGNITION: Not available

#### 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. Protect from sunlight. Store in a well-ventilated area. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.

HANDLING: Avoid breathing gas. Use only with adequate ventilation.

## 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

#### **EXPOSURE LIMITS:**

ARGON, COMPRESSED:

**ARGON:** 

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: Wear appropriate chemical resistant gloves.

**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 a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.



a Gas Professionals™ Page 4 of 7

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: gas

COLOR: colorless ODOR: odorless TASTE: tasteless

MOLECULAR WEIGHT: 39.948 MOLECULAR FORMULA: Ar BOILING POINT: -303 F (-186 C) FREEZING POINT: -308 F (-189 C)

**DECOMPOSITION POINT:** Not available **VAPOR PRESSURE:** 500 mmHg @ -190 C

VAPOR DENSITY (air=1): 1.380 SPECIFIC GRAVITY: Not applicable

**DENSITY:** 1.784 g/L @ 0 C

WATER SOLUBILITY: 3.36% @ 20 C

PH: Not applicable

**VOLATILITY:** Not applicable

**ODOR THRESHOLD:** Not available **EVAPORATION RATE:** Not applicable

VISCOSITY: 0.0225 cP @ 25 C

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not applicable

**SOLVENT SOLUBILITY: Soluble:** organic solvents

#### 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: No data available.

POLYMERIZATION: Will not polymerize.





## 11. TOXICOLOGICAL INFORMATION

ARGON, COMPRESSED:

TARGET ORGANS: simple asphyxiant

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

12. ECOLOGICAL INFORMATION

**ECOTOXICITY DATA:** 

FISH TOXICITY: No data available.

**INVERTEBRATE TOXICITY:** No data available.

ALGAL TOXICITY: No data available.

**FATE AND TRANSPORT:** 

BIODEGRADATION: No data available.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:

PROPER SHIPPING NAME: Argon, compressed

**ID NUMBER: UN1006** 

HAZARD CLASS OR DIVISION: 2.2 LABELING REQUIREMENTS: 2.2

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

SHIPPING NAME: Argon, compressed

**UN NUMBER:** UN1006

**CLASS: 2.2** 

15. REGULATORY INFORMATION

**U.S. REGULATIONS:** 

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





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SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart B): Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart C): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370 Subparts B

and C):

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 (29 CFR 1910.119): 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): Listed on inventory.

#### 16. OTHER INFORMATION

#### MSDS SUMMARY OF CHANGES

- 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION
- 3. HAZARDS IDENTIFICATION
- 5. FIRE FIGHTING MEASURES
- 7. HANDLING AND STORAGE
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 15. REGULATORY INFORMATION

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# HAZARDOUS MATERIALS INVENTORY FORM

FORM 3

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PHYSICAL STATE (Check one item only)	a. SOLID b. LIQUID	🔼 c. GAS 17	CATEGORIES		UTE HEALTH	NEAG TIVE		CHRONIC HEAL	
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		h. CARBOY	☐ I. BOX(S		_=	ACH OR EQU	IP L	L OTHER	27
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# MATERIAL SAFETY DATA SHEET

# 1. IDENTIFICATION

MATHESON TRI-GAS, INC.

150 Allen Road Suite 302

Basking Ridge, New Jersey 07920

Information: 1-800-416-2505

**Emergency Contact:** 

CHEMTREC 1-800-424-9300

Calls Originating Outside the US:

703-527-3887 (Collect Calls Accepted)

PRODUCT NAME: HELIUM

TRADE NAMES/SYNONYMS:

MTG MSDS 48; HELIUM GAS; HELIUM COMPRESSED; HELIUM-4; ATOMIC HELIUM; UN 1046;

He; MAT10640

CHEMICAL FAMILY: inorganic, gas

**PRODUCT USE:** industrial

**RESTRICTIONS ON USE:** none known

# 2. HAZARDS IDENTIFICATION

#### **GHS CLASSIFICATION:**

Gas under pressure, Compressed gas

#### **GHS SYMBOL:**



**GHS SIGNAL WORD: WARNING** 

#### **GHS HAZARD STATEMENT:**

Contains gas under pressure; may explode if heated

GHS PRECAUTIONARY STATEMENTS: Protect from sunlight. Store in a well-ventilated place.

#### **EMERGENCY OVERVIEW:**

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

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

**COMPONENT:** HELIUM **CAS NUMBER:** 7440-59-7

**EC NUMBER (EINECS): 231-168-5** 

PERCENTAGE: 100

### 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.

## **SYMPTOMS/EFFECTS:**

**ACUTE:** suffocation

DELAYED: no data available

NOTE TO PHYSICIAN: For inhalation, consider oxygen.

# 5. FIRE FIGHTING MEASURES



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

**EXTINGUISHING MEDIA:** Use extinguishing agents appropriate for surrounding fire.

Large fires: Use water spray to keep containers cool.

UNSUITABLE EXTINGUISHING MEDIA: None known.

**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).

FIRE FIGHTING PROTECTIVE EQUIPMENT: Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

#### **HAZARDOUS COMBUSTION PRODUCTS:**

Thermal decomposition or combustion products: Not applicable

#### 6. ACCIDENTAL RELEASE MEASURES

#### PERSONAL PRECAUTIONS:

Wear personal protective clothing and equipment, see Section 8.

#### **EMERGENCY PROCEDURES:**

Do not extinguish, unless leak can be stopped safely. Reduce vapors with water spray. Eliminate all ignition sources if safe to do so. Keep unnecessary people away, isolate hazard area and deny entry.

#### **ENVIRONMENTAL PRECAUTIONS:**

Avoid release to the environment.

#### METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP:

Avoid heat, flames, sparks and other sources of ignition. Ventilate closed spaces before entering. Damaged cylinders should be handled only by specialists.

#### 7. HANDLING AND STORAGE

**HANDLING:** Avoid breathing gas. Use only with adequate ventilation.

**STORAGE:** Store and handle in accordance with all current regulations and standards. Protect from sunlight. Store in a well-ventilated area. 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)

#### **BIOLOGICAL LIMIT VALUES:**

**HELIUM:** 

No biological limit value(s) available.

**ENGINEERING CONTROLS:** Provide local exhaust or process enclosure ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. 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 a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: gas

COLOR: colorless ODOR: odorless TASTE: tasteless

MOLECULAR WEIGHT: 4.0026 MOLECULAR FORMULA: He

**BOILING POINT: -269 C** 

FREEZING POINT: -272 C @ 26 atm

FLASH POINT: Not available

LOWER FLAMMABLE LIMIT: Not available UPPER FLAMMABLE LIMIT: Not available

AUTOIGNITION: Not available



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**DECOMPOSITION POINT:** Not available 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:** odorless

**EVAPORATION RATE:** Not applicable VISCOSITY: 0.02012 cP @ 26.8 C

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not applicable

OCTANOL/WATER PARTITION COEFFICIENT (LOG Kow): Not available

SOLVENT SOLUBILITY:

Insoluble: alcohol

# 10. STABILITY AND REACTIVITY

**STABILITY:** Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Protect from physical damage and heat. Containers may rupture or explode if exposed to heat. Avoid inhalation of material or combustion by-products.

**INCOMPATIBILITIES:** No data available.

#### **HAZARDOUS DECOMPOSITION:**

Thermal decomposition or combustion products: Not applicable

POSSIBILITY OF HAZARDOUS REACTIONS: Will not polymerize.

# 11. TOXICOLOGICAL INFORMATION

#### **HELIUM:**

LIKELY ROUTES OF EXPOSURE: inhalation, skin, eyes

ASPIRATION HAZARD: Not applicable.

SENSITIZER:

DERMAL: No data available.

RESPIRATORY: No data available. **EFFECTS FROM EXPOSURE:** 

IMMEDIATE: suffocation DELAYED: no data available

**IRRITATION DATA:** No animal testing data available for skin or eyes.

CARCINOGEN STATUS: No data available.

**LOCAL EFFECTS:** 



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No data available.

TARGET ORGANS: simple asphyxiant

**CHRONIC EFFECTS:** 

No data available.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

TUMORIGENIC DATA: No data available. MUTAGENIC DATA: No data available.

**REPRODUCTIVE EFFECTS DATA:** No data available.

#### 12. ECOLOGICAL INFORMATION

**ECOTOXICITY DATA:** 

FISH TOXICITY: No data available.

**INVERTEBRATE TOXICITY:** No data available.

ALGAL TOXICITY: No data available.

**FATE AND TRANSPORT:** 

**BIODEGRADATION:** No data available.

MOBILITY: No data available.

PERSISTENCE: No data available.

BIOACCUMULATION: No data 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

**MARITIME TRANSPORT IMDG:** 

PROPER SHIPPING NAME: Helium, compressed

UN NUMBER: UN1046 CLASS OR DIVISION: 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 Subpart B): Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart C): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370 Subparts B

and C):

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 (29 CFR 1910.119): 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

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

**REVISION DATE:** Dec 11 2008

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# HAZARDOUS MATERIALS INVENTORY FORM

FORM 3

DEPARTY A	DD	DELETE	REVISED	) 1			Pag	e o	of	2
FACILITY ID#	0 3 5		38	BUSINESS NAME	010	0001	-5701			3
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CONFIDENTIAL LOCATION	ON	Yes	DeNo 5	MAP#		6	GRID#	F		7
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CHEMICAL NAME			e O		- 1	Yes 8	TRADE SECR	ш.,	s No	11
COMMON NAME	VSTAP	AK (	OMPOI	DENT H	<u> </u>	9	An EHS Chen	A see instructions nical Ye	s PNo	12
	STAPAL	<u> </u>					*If EHS is "Ye	s", all amounts must	be LBS	13
9016 - 8	7-9	10 FIRE CODE H	IAZARD CLASSE	S (supplied by GGFI	D)				POLICIA DE	13
TYPE (Check one item only)	a. PURE	b. MIXTURE	E □ c.	WASTE 14	RADIOACTIVE	Yes [	] No 15	CURIES		16
PHYSICAL STATE (Check one item only)	a. SOLID	b. LIQUID	C. GAS	17 FED HA CATEG	ORIES		REACTIVE	c. PRESSURE		18
AVERAGE DAILY . 0	7 19	MAXIMUM DAILY	2	20 ANN	. 1.	ACUTE HEALTH		WASTE CODE	HEALTH	22
AMOUNT	0.7	AMOUNT	23 DAYS ON	SITE SITE	8	24 LAI	RGEST CONTAI	NER		25
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STORAGE CONTAINER (Check all that apply)	a. ABOV	EGROUND TANK RGROUND TANK INSIDE BLDG	e. PLASTIC f. NONMETA g. METAL C h. CARBOY	ALLIC DRUM	i. VAT I. FIBER DRUM I. BAG(S) I. BOX(S)	O PLA	INDER ISS CONTAINER STIC CONTAINE MACH OR EQUIF	R 🔲 s. TOTE	CAR E BIN	26
STORAGE PRESSURE	and the second second	a. AMBIENT		b. ABOVE AMBIEN	п . 🗆	c. BELOW AME	HENT			27
STORAGE TEMPERATU	RE D	a. AMBIENT		b. ABOVE AMBIEN	т 🗆	c. BELOW AME	HENT	d. CRYOGENIO	С	28
%WT	HAZ	ARDOUS CON	IPONENT (	For mixture or w	aste only)		EHS		CAS#	
1 29			1000		30	☐ Yes	□No	31		32
2 29					30	☐ Yes	□ No	31		32
3 29					30	☐ Yes	□ No	31		32
4 29		1200			30	☐ Yes	□ No	31		32
5 29	2000)		•		30	☐ Yes	□ No	31		32
If more hazardous compo	nents are present at	greater than 1% by we				attach additional :	sheets of paper c	apturing the required	d information.	GEN ALV
			PLAC	CARDING INF	ORMATION					
UNDOT#				33			PA 704 HAZ RE(RED) <b>%</b>	ARD DIAMON	D	
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DOT HAZARD C				34		(BLUE)	7 4/		ELLOW)	
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EPCRA  YES	i □ NO			35						
x					N			ES OF CHEM		
	If EPC	RA, Please Si	gn Here	36		INVENT	OKY FORM	AS NEEDE	<u> </u>	

Protective Packaging 10 Old Sherman Tumpike Danbury, CT 08810 203-791-3500 Fax: 203-791-3618

# MATERIAL SAFETY DATA SHEET

I-A Page 1 of 6 Issued 1/2008

#### **EMERGENCY NUMBERS:**

Sealed Air Corporation (US):

(203) 791-3500 For emergency and general information

8:30am-5:00pm, (Eastern Time) Monday-Friday

CHEMTREC:

00) 424 0200 - E--- Ch----- - LE

(800) 424-9300 For Chemical Emergency - spill, leak, fire, exposure or accident

24 hours

# SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name:

INSTAPAK® COMPONENT "A"

Chemical Name:

Polymethylene Polyphenylisocyanate

Trade Name:

Polymeric MDI

Chemical Family:

Aromatic Isocyanates

CAS No.:

9016-87-9

### **SECTION 2 - HAZARDS IDENTIFICATION**

#### **EMERGENCY OVERVIEW**

<u>Health Hazards:</u> Irritating to skin, respiratory system and eyes. Repeated inhalation of aerosols at levels above the occupational exposure limit could cause respiratory sensitization and risk of serious damage to respiratory system. The onset of the respiratory symptoms may be immediate or delayed for several hours after exposure. A hyperreactive response to even minimal concentrations of MDI may develop in sensitized persons. Sensitized persons should not be exposed to any mixture containing unreacted MDI. Respiratory sensitizer. Skin sensitizer.

Medical Conditions Aggravated by Exposure: Respiratory disorders, asthma, skin allergies and eczema.

<u>Physical Hazards:</u> Closed containers may rupture under extreme heat or when contents have been contaminated with water. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Appearance: Dark brown liquid with slightly aromatic or musty odor.

Note: Read the entire MSDS for a more thorough evaluation of the hazard information on this product.

## SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components: Polymeric Diphenylmethane Diisocyanate (polymeric MDI or PMDI) Contains:	<u>CAS No</u> . 9016 <b>-</b> 87-9	<u>Wt.%</u> 100	OSHA-PEL Not Listed	ACGIH-TLV Not Listed
4,4'-Diphenylmethane diisocyanate (4,4'-MDI; approx. 45%)	101-68-8		0.02 ppm (Ceiling)	0.005 ppm (TWA)
Other MDI isomers and oligomers	Not Listed		Not Listed	Not Listed

This product is classified as hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200).

Protective Packaging 10 Old Sherman Tumpike Danbury, CT 06810 203-791-3500 Fax: 203-791-3618

#### **SECTION 4 - FIRST AID MEASURES**

Eye Contact: Immediately flush eyes with copious amounts of water for a minimum of 15 minutes, holding lids open with fingers. If irritation persists, repeat flushing. Refer individual to a physician for immediate follow-up.

Skin Contact: Remove contaminated clothing and/or shoes. Immediately wash affected area thoroughly with soap and water. Some organic materials such as corn oil or propylene glycol can aid in the removal of PMDI from the skin when applied immediately. Contaminated clothing should be thoroughly cleaned before reuse. If irritation, redness, or a burning sensation develops and persists, obtain medical advice.

<u>Inhalation:</u> Remove patient from further exposure and obtain medical attention. Treatment is symptomatic for primary irritation or difficulty in breathing. If breathing is labored, qualified personnel should administer oxygen. Apply artificial respiration if breathing has ceased or shows signs of failing. Asthmatic-like symptoms, if manifested, may develop immediately, or be delayed for up to several hours.

<u>Ingestion:</u> Do NOT induce vomiting. Provided the patient is conscious, wash mouth out with water. Refer person to medical personnel for immediate attention.

**Note to Physicians**: Symptomatic and supportive therapy as indicated. Following severe exposure, medical follow-up should be monitored for at least 48 hours.

# **SECTION 5 - FIRE FIGHTING MEASURES**

Flash Point: 390°F (199°C) [Pensky-Martens Closed Cup]

Flammable Limits (lower): Not available Flammable Limits (upper): Not available

Extinguishing Media: Water, carbon dioxide (CO<sub>2</sub>), dry chemical or appropriate foam. If water is used, large quantities are required. Reaction between water and hot isocyanate may be vigorous. Contain run-off water with temporary barriers.

<u>Fire Fighting Procedures:</u> Firefighters should wear NFPA compliant protective equipment including a self-contained breathing apparatus, helmet, hood, boots and gloves. Avoid contact with material. Decontaminate equipment and protective clothing prior to reuse. During a fire, isocyanate vapors and other irritating, toxic gases may be generated by thermal decomposition or combustion. Exposure to heated diisocyanate should be avoided.

<u>Fire and Explosion Hazards:</u> Containers with residual chemical may burst under intense heat or pressure. Due to reaction with water, a hazardous build-up of pressure could result if containers contaminated with moisture are sealed.

NFPA Hazard Code:

Health	2
Flammability	1
Reactivity	1
Special Hazard	None

0=Minimal 1=Slight 2=Moderate 3=High 4=Extreme

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

Evacuate area surrounding the spill and prevent further spillage, leakage or entry into drains. Eye and skin protection should be worn during spill cleanup and ventilation maintained. If the potential for airborne concentrations of MDI above the PEL exists, then respiratory protection should be worn. Contain and cover spill with loose absorbent (earth, sand, sawdust or other absorbent material), or absorbent pillows, pads or socks. Collect absorbed material in open containers or plastic bags, and treat with deactivating solution (90% water, 8% concentrated ammonia, 2% detergent). Allow to stand uncovered for 48-72 hours to permit carbon dioxide to escape and solidification to occur. Wash spill area with deactivating solution and let stand for 30 minutes or longer. Dispose of absorbed and neutralized material properly.

# SECTION 7 - HANDLING AND STORAGE

Storage Temperature: Min. 50°F (10°C) Max. 100°F (38°C)

Average Shelf Life: 12 months (when stored in original, unopened, sealed containers).

Special Sensitivity: Reacts with moisture to produce carbon dioxide gas.

<u>Precautions to be Taken in Handling and Storage:</u> Do not store product containers uncovered outdoors. Do not reseal containers unless it is certain that no moisture contamination has occurred. Do not breathe vapors or allow skin contact.

# SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: OSHA-PEL: 4,4'-Diphenylmethane diisocyanate (MDI) 0.02 ppm (Ceiling)

ACGIH-TLV: 4,4'-Diphenylmethane diisocyanate (MDI) 0.005 ppm (TWA)

**HMIS Hazard Code:** 

Health	2*
Flammability	1
Reactivity	1
PPE	В

(Personal Protective Equipment) (B= safety glasses and gloves)

0=Minimal 1=S

1=Slight 2=Moderate

3=High 4=Severe

\*=chronic health hazard

Exposure Guidelines: Medical supervision of employees who come into contact with respiratory sensitizers is recommended. Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurrent skin eczema or sensitization should be excluded from working with this product. Once a person is sensitized, no further exposure to the material that caused the sensitization should be permitted. Avoid inhalation of mists and vapors. Avoid skin contact.

Respiratory Protection: Due to the low vapor pressure of this material, the PEL is not likely to be exceeded under normal conditions. If the material is heated or spilled in a confined area, respiratory protection should be worn. An approved air purifying respirator equipped with an organic vapor cartridge and a HEPA (P100) particulate filter may be used when an appropriate cartridge change-out schedule has been developed in accordance with the OSHA respiratory protection standard (29 CFR 1910.134). Where concentrations exceed the level for which an air-purifying respirator is effective, use a positive pressure, supplied air respirator.

Eve Protection: Safety glasses with side shields or goggles.

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# SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION (continued)

Protective Clothing: Chemical resistant butyl rubber, nitrile rubber, neoprene, or other suitable protective gloves.

<u>Ventilation</u>: Use local exhaust ventilation if necessary to maintain levels below the PEL. For guidance on engineering controls refer to the ACGIH publication "Industrial Ventilation."

Other: Eyewash station, safety shower, and deactivating solution (see Section 6) should be available. Refer to the "Recommendations for the Safe Use and Handling for Foam-in-Place Chemicals" bulletin before handling Instapak® chemicals.

# SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Boiling Point: 406°F (208°C)

Color: Dark brown

Vapor Pressure: < 10<sup>-5</sup> mm Hg at 25°C (for Polymeric MDI)

Odor: Slightly aromatic (musty) Vapor Density (Air = 1): 8.5

Specific Gravity: 1.24 at 25°C Bulk Density: 10.3 lbs/gal % Volatile by Volume: Nil

Molecular Weight: Approx. 350 Melting Point: Not established.

Solubility in Water: Not soluble. Reacts slowly to liberate CO2 gas.

#### SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable under normal conditions. Avoid temperatures above 110°F (43°C) or below 40°F (4°C).

<u>Polymerization:</u> May occur at elevated temperatures in the presence of moisture, alkalies, tertiary amines and metal compounds.

Conditions to Avoid: Contact with moisture and other materials that contain active hydrogen.

<u>Incompatible Materials:</u> Water, amines, strong bases, copper alloys and alcohols. The reaction with water is slow at temperatures less than 120°F (49°C) but is accelerated at higher temperatures.

<u>Hazardous Decomposition Products:</u> Highly unlikely under normal industrial use. Exposure to fire or extreme heat may generate oxides of carbon, oxides of nitrogen, and traces of hydrogen cyanide.

# SECTION 11 - TOXICOLOGICAL INFORMATION

**Toxicity Data:** 

LD<sub>50</sub> Oral:

>2,000 mg/kg (rat) for polymeric MDI

LD<sub>50</sub> Dermal:

>10,000 mg/kg (rabbit) for monmeric MDI

LC<sub>so</sub> Inhalation:

>2,240 mg/m<sup>3</sup>/1 hour (rat) for an aerosol of monomeric MDI

370-490 mg/m<sup>3</sup>/4 hour (rat) for polymeric MDI

<u>Primary Route(s) of Exposure:</u> Skin contact from liquid. Inhalation. However, due to the low vapor pressure, overexposure is not expected under normal conditions unless material is heated or used in a poorly ventilated area.

<u>Inhalation:</u> This product is a respiratory irritant and respiratory sensitizer. Inhalation of vapor or aerosol at levels above the occupational exposure limit can cause respiratory sensitization. Symptoms may include irritation to the eyes, nose, throat, and lungs, possibly combined with dryness of the throat, tightness of chest and difficulty in breathing. The onset of respiratory symptoms may be delayed for several hours after exposure.

# SECTION 11 - TOXICOLOGICAL INFORMATION (continued)

A hyper-reactive response to even minimal concentrations of MDI may develop in sensitized persons. Sensitized persons should be removed from any further exposure. Persons with asthma-type conditions or other chronic respiratory diseases should be excluded from working with MDI. Like many other non-specific asthmatic responses, there are reports that a sensitized individual can experience symptoms upon exposure to dust, cold air or other irritants. In a single evaluation of 5 men occupationally exposed to MDI and hydrocarbon solvent vapors under conditions where adequate ventilation or other safety precautions were <u>not</u> used, neuropsychologic findings were attributed to MDI.

Skin Contact: Skin irritant and sensitizer. May cause irritation or rash. Can cause skin discoloration. Repeated and/or prolonged contact may result in skin sensitization. Individuals who have skin sensitization can develop symptoms (e.g., reddening swelling, rash) from contact with liquid or vapors. There is limited evidence from laboratory tests that skin contact may play a role in respiratory sensitization. This data reinforces the need to prevent direct skin contact and the importance of protective gloves.

<u>Eye Contact:</u> Liquid can cause eye irritation, tearing, reddening and swelling. Permanent corneal injury is unlikely. Exposure to MDI vapors in excess of 0.02 ppm may cause irritation.

<u>Ingestion</u>: Ingestion is unlikely. Based on the acute oral  $LD_{50}$ , this product is considered practically non-toxic by ingestion. Ingestion can cause irritation and corrosive action in the mouth, stomach and digestive tract.

Chronic Effects: A study was conducted where groups of rats were exposed for 6 hours/day, 5 days/week for a lifetime to atmospheres of respirable polymeric MDI aerosol either at concentrations of 0, 0.2, 1, or 6 mg/m³. No adverse effects were observed at 0.2 mg/m³ concentrations. At the 1 mg/m³ concentration, minimal nasal and lung irritant effects were seen. Only at the highest concentration (6 mg/m³) was there an increased incidence of benign tumor of the lung (adenoma) and one malignant tumor (adenocarcinoma). MDI administration to rats in this study did not change the distribution and incidence of tumors from those seen in control animals. The increased incidence of lung tumors is associated with prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung. In the absence of prolonged exposure to high concentrations leading to chronic irritation and lung damage, it is highly unlikely that tumor formation will occur.

<u>Carcinogenicity:</u> The ingredients of this product (>0.1%) are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA and not listed as carcinogens by NTP.

Mutagenicity: There is no substantial evidence of mutagenic potential.

Reproductive Effects: No adverse reproductive effects are anticipated.

<u>Teratogenicity and Fetotoxicity:</u> No birth defects were seen in two independent animal (rat) studies. Fetotoxicity was observed at doses that were extremely toxic (including lethal) to the mother. The dose that produced this effect (1.2 ppm) is 60 times higher than the OSHA-PEL. Fetotoxicity was not observed at doses that were not maternally toxic. The doses used in these studies were maximal, respirable concentrations well in excess of the defined occupational exposure limits.

# SECTION 12 - ECOLOGICAL INFORMATION

<u>Environmental Fate and Distribution:</u> It is unlikely that significant environmental exposure in the air or water will arise, based on consideration of the production and use of the substance.

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# SECTION 12 - ECOLOGICAL INFORMATION (continued)

<u>Persistence and Degradation:</u> Immiscible with water, but will react with water to produce carbon dioxide, and inert and non-biodegradable solids.

Aquatic Toxicity:

LC<sub>50</sub>: >1,000 mg/1 (Zebra fish, 96 hrs) LC<sub>50</sub>: >3,000mg/l (Killifish, 96 hrs)

EC<sub>50</sub>: >1,000 mg/1 (Daphnea magna, 24 hrs)

EC<sub>50</sub>: >100 mg/1 (Activated sludge microorganisms, 3 hrs)

# SECTION 13 - DISPOSAL CONSIDERATIONS

Incinerate or dispose of in accordance with existing federal, state and local environmental control regulations. This material is not a hazardous waste under RCRA 40 CFR 261 when disposed of in its purchased form. Small quantities should be treated with deactivation solution outlined in Section 6. Refer to the "Recommendations for the Safe Use and Handling for Foam-in-Place Chemicals" bulletin for additional information concerning disposal of wastes and empty containers. Chemical waste, regardless of quantity, should never be poured into drains, sewers or waterways.

# SECTION 14 - TRANSPORT INFORMATION

**<u>DOT</u>**: Single containers less than 5,000 pounds are not regulated.

IMO: Not regulated.

IATA/ICAO Class: Not regulated.

Reportable Quantity (RQ): 5,000 lbs. for Methylene diphenyl diisocyanate (4,4'-MDI), CAS #101-68-8 (≈ 45% of product).

# SECTION 15 - REGULATORY INFORMATION

TSCA Status: All ingredients are listed or are not required to be listed.

<u>CERCLA Status:</u> Discarded product is not a hazardous waste under RCRA, 40 CFR 261, when disposed of in its purchased form.

SARA 302 Extremely Hazardous Substances: None

SARA 311/312 Hazard Categories: Immediate (acute) Health Hazard, Delayed (chronic) Health Hazard SARA 313 Listed Ingredients: This product contains the following chemicals subject to reporting requirements: 100% Diisocyanate compounds (Category Code N120).

This product contains a trace (ppm) amount of monochlorobenzene (CAS# 108-90-7) as an impurity.

# **SECTION 16 - OTHER INFORMATION**

Other Regulations/Legislation which apply to this product: Massachusetts Right-to-Know, New Jersey Right-to-Know, Pennsylvania Right-to-Know [Methylene bisphenyl isocyanate (4,4'-MDI), CAS#101-68-8].

This product does not contain any of the listed chemicals which the state of California has found to cause cancer, birth defects or other reproductive harm.

Section(s) Revised: Company logo updated. Sections 2, 3, 5 8, 11, 12and 16 revised.

Printed using vegetable based inks.

M-3

Rev. 1/2008



# HAZARDOUS MATERIALS INVENTORY FORM

FORM 3

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# MATERIAL SAFETY DATA SHEET

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Protective Packaging 10 Old Sherman Tumpike Danbury, CT 08810 203-791-3500 Fax: 203-791-3618

### **EMERGENCY NUMBERS:**

Sealed Air Corporation: (203) 791-3500 For emergency and general information

8:30am-5:00pm, (Eastern Time), Monday-Friday

CHEMTREC: (800) 424-9300 For Chemical Emergency - spill, leak, fire, exposure or accident

24 hours

# SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name:

INSTAPAK® MOLDING FOAM COMPONENT "B"

Chemical Name:

Polyurethane Foam Resin

Trade Name:

Polyol N.A.

Chemical Family: CAS No.:

N.A.

# **SECTION 2 - HAZARDS IDENTIFICATION**

## **EMERGENCY OVERVIEW**

Health Hazards: Irritating to eyes and skin. Inhalation may result in irritation.

Physical Hazards: No immediate hazard.

Medical Conditions Aggravated by Exposure: None known.

Appearance: Liquid can be a straw to amber color and have a clear to cloudy appearance. A slight amine odor

may be present.

Note: Read the entire MSDS for a more thorough evaluation of the hazard information on this product.

# SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

**Hazardous Components** 

CAS No.

Wt. %

OSHA-PEL

ACGIH-TLV

Amine Catalyst

Proprietary

≈ 2

Not Established

Not Established

This product is classified as hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200).

# **SECTION 4 - FIRST AID MEASURES**

Eye Contact: Flush with copious amounts of water for at least 15 minutes, holding lids open with fingers.

Skin Contact: Wash area thoroughly with soap and water. Launder contaminated clothing before reuse.

Inhalation: Remove patient from further exposure and obtain medical attention. Administer oxygen if necessary.

Ingestion: Drink water to dilute and obtain medical attention.

Note to Physicians: Symptomatic and supportive care as indicated.

Protective Packaging 10 Old Sherman Tumpike Danbury, CT 05610 203-791-3500 Fax: 203-791-3618 IMF-B Page 2 of 5 Issued 1/2008

### **SECTION 5 - FIRE FIGHTING MEASURES**

Flash Point: Product as supplied does not have a flash point. [Pensky-Martens Closed Cup]

Flammable limits (lower): Not applicable. Flammable limits (upper): Not applicable.

Extinguishing Media: Carbon dioxide (CO<sub>2</sub>), chemical foam, dry chemical, water spray.

<u>Fire Fighting Procedures:</u> Firefighters should wear NFPA compliant protective equipment including a self-contained breathing apparatus, helmet, hood, boots and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse.

Fire and Explosion Hazards: Chemical containers may burst under intense heat or pressure.

NFPA Hazard Code:

Health	2
Flammability	1
Reactivity	0
Special Hazard	None

0=Minimal

1=Slight

2=Moderate

3=High

4=Extreme

# SECTION 6 - ACCIDENTAL RELEASE MEASURES

Evacuate area surrounding the spill and prevent further leakage, spillage or entry into drains. Eye and skin protection should be worn during spill cleanup and ventilation maintained. Contain and cover spill with loose absorbent (earth, sand, sawdust or other absorbent material) or absorbent pillows, pads or socks. Collect absorbed material in open containers or plastic bags. Dispose of spilled material properly.

#### SECTION 7 - HANDLING AND STORAGE

Storage Temperature: Min. 35°F (2°C) Max. 110°F (43°C)

Average Shelf Life: 12 months (when stored in original, unopened, sealed containers).

Special Sensitivity: None.

Precautions to be Taken in Handling and Storage: None.

# SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

OSHA-PEL:

Not Established

ACGIH-TLV:

Not Established

**HMIS Hazard Code:** 

Health 2
Flammability 0
Reactivity 0
PPE B

(Personal Protective Equipment) (B= safety glasses and gloves)

0=Minimal

1=Slight

2=Moderate

3=High

4=Severe

Protective Packaging 10 Old Sherman Tumpike Danbury, CT 06810 203-791-3500 Fax: 203-791-3618 IMF-B Page 3 of 5 Issued 1/2008

# SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION (continued)

<u>Respiratory Protection:</u> The use of respiratory protection should not be needed under normal use and handling conditions. If protection is chosen, an air purifying respirator, equipped with organic vapor cartridges, is appropriate.

Eye Protection: Safety glasses with side shields or goggles.

Protective Clothing: Chemical resistant butyl rubber, nitrile rubber, neoprene, or other suitable protective gloves.

<u>Ventilation</u>: Good general ventilation. For guidance on engineering controls refer to the ACGIH publication "Industrial Ventilation."

Other: Eyewash station and safety shower should be available. Refer to the "Recommendations for the Safe Use and Handling of Instapak® Foam-in-Place Chemicals" bulletin before handling Instapak® chemicals.

# SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid-

Color: Light straw or amber

Odor: Slight amine

Vapor Density (Air = 1): > 1

Molecular Weight: Not applicable

Melting Point: Sets to a glass<-20°F (-29°C)

Boiling Point: >201°F (94°C)

Vapor Pressure: Not established (low)

Specific Gravity: 1.04 at 25°C

Bulk Density: 8.7 lbs/gal

% Volatile by Volume: Nil

Solubility in Water: Soluble

#### SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable.

Polymerization: Will not occur.

Conditions to Avoid: None.

Incompatible Materials: Contact with isocyanates, unless mixed at the proper ratio, should not occur.

Hazardous Decomposition Products: By fire or extreme heat, oxides of carbon and nitrogen.

# SECTION 11 - TOXICOLOGICAL INFORMATION

**Toxicity Data:** 

LD<sub>50</sub> Oral:

Not Established

LD<sub>50</sub> Dermal:

Not Established

LC<sub>50</sub> Inhalation:

Not Established

<u>Primary Route(s) of Exposure:</u> Skin contact from liquid. Inhalation. However, overexposure is not expected under normal conditions.

Protective Packaging 10 Old Sherman Tumpike Danbury, CT 06810 203-791-3500 Fax: 203-791-3618 IMF-B Page 4 of 5 Issued 1/2008

## SECTION 11 - TOXICOLOGICAL INFORMATION (continued)

Inhalation: Vapors may be irritating if hot.

Skin Contact: Repeated contact may be irritating.

Eye Contact: Can cause eye irritation. Permanent corneal injury is unlikely.

Ingestion: Ingestion is unlikely. Large quantities could cause irritation of mouth and stomach.

Chronic Effects: No applicable data.

<u>Carcinogenicity</u>: The ingredients of this product (>0.1%) are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.

Mutagenicity: No applicable data.

Reproductive Effects: No applicable data.

Teratogenicity and Fetotoxicity: No applicable data.

# SECTION 12 - ECOLOGICAL INFORMATION

No applicable data for this section.

# **SECTION 13 - DISPOSAL CONSIDERATIONS**

Incinerate or dispose of in accordance with existing federal, state and local environmental control regulations. This material is not a hazardous waste under RCRA 40 CFR 261 when discarded in its purchased form. Also see "Recommendations for the Safe Use and Handling of Instapak® Foam-in-Place Chemicals" bulletin for additional information concerning disposal of wastes and empty containers. Chemical waste, regardless of quantity, should never be poured into drains, sewers or waterways.

#### **SECTION 14 - TRANSPORT INFORMATION**

**DOT**: Not regulated.

IMO: Not regulated.

IATA/ICAO Class: Not regulated.

Reportable Quantity (RQ): Not applicable.

Protective Packaging 10 Old Sherman Tumpike Danbury, CT 06810 203-791-3500 Fax: 203-791-3618 IMF-B Page 5 of 5 Issued 1/2008

# SECTION 15 - REGULATORY INFORMATION

TSCA Status: All ingredients are listed or are not required to be listed.

<u>CERCLA Status</u>: Discarded product is not a hazardous waste under RCRA, 40 CFR 261, when disposed of in its purchased form.

SARA 302 Extremely Hazardous Substances: None.

SARA 311/312 Hazard Categories: Immediate (acute) Health Hazard.

SARA 313 Listed Ingredient(s): None.

# **SECTION 16 - OTHER INFORMATION**

Other Regulations/Legislation which apply to this product: Substances used to manufacture this product do not require listing under Massachusetts, New Jersey or Pennsylvania Right-to-Know regulations.

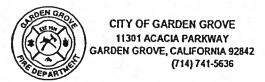
To the best of our knowledge, this product does not contain any of the listed chemicals which the state of California has found to cause cancer, birth defects or other reproductive harm.

Section(s) Revised: Company logo updated. Sections 2, 3, 5 and 8 revised.

Printed using vegetable based inks.

M-45

Rev. 1/2008



# **CUPA**

# **BUSINESS ACTIVITIES**

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The state of the basis of the state of the s	IDENTIFICATION	<b>到是我们的特别,在"我们是是是不是的。"</b>
FACILITY ID# 3 0 0 3 5	CALODO	
BUSINESS NAME (Same as FACILITY NAME or DBA-Doing Business	(PAS)	3.
EL-COM CABLETER	" EL-R	
II. ACTIVIT	IES DECLARATION	
NOTE: If you check	VES to any part of	of this list
please submit the Business		
Does your facility	If Yes, pleas	e 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?		HAZARDOUS MATERIALS INVENTORY - CHEMICAL DESCRIPTION (Form 3)
B. UNDERGROUND STORAGE TANKS (USTs)		
Own or operate underground storage tanks?	YES X NO	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	UST FACILITY
		✓ UST TANK (one per tank)
		✓ UST INSTALLATION - CERTIFICATE OF
		COMPLIANCE (one page per tank) (Formerly
3. Need to report closing a UST?	YES TO 7	Form C)  UST TANK (closure portion-one page per tank)
C. ABOVE GROUND PETROLEUM STORAGE TANKS (ASTs)		- Control of Page Part Carry
Own or operate ASTs above these thresholds:		
- any tank capacity is greater than 660 gallons, or	☐ YES \ NO 8	✓ NO FORM REQUIRED TO CUPAS
- the total aggregate capacity for the entire facility (ASTs, drums and		
portable containers) greater than 1,320 gallons?  D. HAZARDOUS WASTE		
Generate hazardous waste?	YYES TINO 9	( FDA ID AN MADED
Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC §25143.2)?	YES NO 10.	The second secon
3. Treat hazardous waste on site?	☐ YES 15K10 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 12.	✓ CERTIFICATION OF FINANCIAL ASSURANCE (Formerly DTSC Form 1232)
5. Consolidate hazardous waste generated at a remove site?	☐ YES 15(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?	TES AND 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 seg	☐ YES > NO 15.	i income in a second in the se
Stationary Source with more than a Threshold Quantity of a Regulated Substance in a Process		FORM (Orange County CUPA)

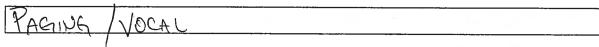
# GARDEN GROVE FIRE DEPARTMENT HAZARDOUS MATERIALS DISCLOSURE PROGRAM

#### **BUSINESS EMERGENCY PLAN**

Personnel Emergency Notifications and Responsibilities

Employee	Evacuation	and Staging	a Areas:

1.	The type	of alarm	signal	that v	ill be	used	to	initiate	an	evacuation	at	the
	facility (vo	ocal, pagi	ng syste	em, ma	nual a	larm,	etc	.).				
		<del></del>										



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

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.

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

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<u> </u>	1100 001	 	

## **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.
- 2. Notify the Garden Grove Fire Department. Dial 911.
- 3. Try to identify the nature of the incident.
- 4. Report to the staging area and account for evacuated employees.
- 5. Report to the incoming fire units.
- Activate any emergency mitigation procedures that area available at your business. (List below any mitigation procedures specific to your business, if any.)

illy.)		

# GARDEN GROVE FIRE DEPARTMENT HAZARDOUS MATERIALS DISCLOSURE PROGRAM

#### **BUSINESS EMERGENCY PLAN**

Personnel Emergency Notifications and Responsibilities (Continued)

#### 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.	Isolation and separation of incompatible materials.		
	b.	Diking areas to contain spills.		
	c.	Storage on paved ground.		
2.	Compre	ssed and/or cryogenic gas storage areas:		
	_ ✓ a.	Cylinder stored upright and secured.		
	b.	Isolation and/or separation of incompatible cylinders (oxygen and flammable gases, etc.).		
3.	General			
	<u>/</u> a.	Safe work practices are exercised in daily routines.		
	b.	Employees who handle hazardous materials are properly trained.		
	<b>∕</b> c.	Material Safety Data Sheets (MSDS) readily available for each hazardous material on the premises.		
	<u>/</u> d.	Labeling of all materials and storage areas with the product name and hazards associated with the product (drums, piping, tanks, etc.).		
	e.	Uniform Fire Code (UFC) requires separation between outside hazardous material storage area or tanks and combustible materials (wood, bush, etc.).		
_	<u></u>	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 (CFC 8001.3.2) to retain a copy of this entire Hazardous Materials Disclosure information, including the 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.

BITTHE	FREILITY	MANAGER	DESK	
		4-I		

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:

Title:

- PCILITY

MANAGOI

Date:

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