

000302



Science 10F2

TURNER

Turner
821 Park Ave.
Sycamore, IL 60178

16016 Montoya St., Irwindale, CA 91706
MATERIAL SAFETY DATA

04-297-15

INFORMATION WILL BE TREATED AS CONFIDENTIAL

SECTION I	MATERIAL IDENTIFICATION	NAME: PROPANE CYLINDER	PART NO. LP-175
MANUFACTURER'S NAME		EMERGENCY TELEPHONE NO.	
TURNER INDUSTRIES, INC.		815/895-4545	

ADDRESS (Number, Street, City, State, Zip Code)
821 Park Ave., Sycamore, IL 60178 / 16016 Montoya St., Irwindale, CA 91706

CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS
Propane (Dimethyl Methane) (Propyl Hydride)	Tornado/Tempest LP-175 14 oz. Propane Cylinder
CHEMICAL FAMILY	FORMULA NUMBER
Liquefied Petroleum Gas	C ₃ H ₈

SECTION II CHEMICAL AND PHYSICAL PROPERTIES Net Contents: 14.1 oz (400 g) or 7.5 cu. ft. (212.4L)

MOLECULAR WT	BOILING POINT	MELTING POINT	SPECIFIC GRAVITY (water = 1) or BULK DENSITY
44	-43 °F	-305 °F	.51 @ 60 °F
VAPOR DENSITY (air = 1)	VAPOR PRESSURE	ODOR/APPEARANCE	
1.52	1.5 psig @ -40 °F	Clear odorless (Additive-Mercaptan-Strong-Pungent)	
SOLUBILITY	CORROSIVE ACTION ON MATERIALS (e.g. aluminum, carbon steel, copper, rubber, plastics, etc.)		
5 vols H ₂ O @ 60 °F	Strong Solvent Dissolves some plastics and rubbers		

DOES THE MATERIAL DECOMPOSE WHEN EXPOSED TO	AIR	WATER	HEAT	STRONG OXIDIZERS	POSSIBLE PRODUCTS PRODUCED ON DECOMP.
	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	CO-CO ₂ -H ₂ O

SECTION III FLAMMABILITY AND EXPLOSIVE PROPERTIES

CLOSED CUP FLASH POINT	IF FLASH POINT CHANGES DURING EVAPORATION GIVE DATA	SUITABLE EXTINGUISHING AGENTS
-156 °F	NA	Class "B" or "C"
EXPLOSIVE LIMITS (by vol. in air)	SUSCEPTIBILITY TO SPONTANEOUS HEATING	FIRE POINT
LOWER 2.4 %	<input checked="" type="checkbox"/> Yes	920-1020 °F
UPPER 9.5 %	<input type="checkbox"/> No	

WHAT PRODUCTS MIGHT BE FORMED IN THE EVENT OF FIRE OR ABNORMAL TEMPERATURES?
Carbon Monoxide and Various Aldehydes

UNUSUAL FIRE OR EXPLOSIVE HAZARDS
Highly Flammable - Heavy Gas

SECTION IV COMPOSITION GIVE CHEMICAL NAMES OF COMPONENTS. IT IS IMPORTANT TO KNOW WHETHER ALCOHOL IS METHANOL! AN AROMATIC HYDROCARBON IS BENZENE, A CHLORINATED MATERIAL IS CARBON TETRACHLORIDE.

HAZARDOUS MATERIALS Must include any ingredients which are regulated or otherwise controlled due to their hazardous or toxic nature	% by Weight	Permissible Exposure Limit	Oxidizer	Toxic	Flammable	Combustible	Corrosive	Radioactive	Sensitizer	Magnetic	Irritant	CAS #
Propane	93.4	1000 ppm		X								74-98-6
Ethane	5.6			X								
Iso Butane	.72	"		X								75-28-5
Butane	.28	"		X								106-97-8

Regulated by and reference number: NIOSH TX 22750 PROPANE

SECTION V HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LIMITS Not considered toxic @ air concentrations of 3.5%

EFFECTS OF OVEREXPOSURE Simple asphyxiant and has anesthetic action in high concentrations.

Freeze burns if liquid touches skin.

EMERGENCY AND FIRST AID PROCEDURES
Oxygen (after removal from exposure) if indicated. Caution of fire hazard in lungs advised. Treat burns as usual - symptomatic and supportive.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE <input type="checkbox"/>	CONDITIONS TO AVOID
	STABLE <input checked="" type="checkbox"/>	Cylinders - temperatures above 125°F. Gas flames, sparks, other sources of ignition.

INCOMPATIBILITY (Materials to Avoid)
Chlorine or highly oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
Complete combustion-none. Incomplete-CO and various other aldehydes.

HAZARDOUS POLYMERIZATION	MAY OCCUR <input type="checkbox"/>	CONDITIONS TO AVOID
	WILL NOT OCCUR <input checked="" type="checkbox"/>	

Rev. 7/6/82
Rev. 9/6/83
Rev. 3/16/81
Rev. 1/8/82
Rev. 1/19/82

Page Date 10/22/79
Rev. 11/17/80
Rev. 12/3/8

SECTION VII

ENVIRONMENTAL HAZARD - SPILL OR LEAK PROCEDURES

PROPANE CYLINDER
04-297-15
2 OF 2

POTENTIAL AS A POLLUTANT

Gas - general hydrocarbon
Combustion products - CO and various aldehydes.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Extinguish all fires, eliminate sparking equipment, ventiate well.

WASTE DISPOSAL METHOD

Allow spills to evaporate with adequate ventilation. Burn under controlled conditions using pressure regulator or control valve.

SECTION VIII

SPECIAL PROTECTION INFORMATION Not needed unless spill occurs.

RESPIRATORY PROTECTION (Specify type)

Chemical cartridge or airline.

VENTILATION

LOCAL EXHAUST

Recommended

SPECIAL

Explosion prof

MECHANICAL (general)

OTHER

PROTECTIVE GLOVES (Type if required)

EYE PROTECTION

Chemical goggles

OTHER PROTECTIVE EQUIPMENT

SECTION IX

SHIPPING REGULATIONS FOR HAZARDOUS MATERIAL

A. IS THE ARTICLE SUBJECT TO SHIPPING REGULATION FOR HAZARDOUS MATERIAL UNDER EACH OF THE FOLLOWING MODES (S) REFER TO INSTRUCTIONS: MATERIAL SAFETY DATA SECTION IX.

RAIL
TRUCK

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

BUS
AIR (2)

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

PARCEL POST
WATER CARRIER

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

BE COMPLETE & PRECISE FOR THE NECESSARY OTHER ADDITIONAL DETAILS

IMDG IMCO CLASS 2 UN #1075 IMDG CODE PAGE 20

TYPE OR CLASS DESCRIBED IN THE REGULATIONS

FLAMMABLE GAS

PROPER SHIPPING NAME (TRUE CHEMICAL OR OTHER NAME AS LISTED IN THE REGULATIONS)

LIQUEFIED PETROLEUM GAS (PROPANE)

PACKAGING REQUIREMENTS AND SPEC. IF APPLICABLE

DOT 39 NRC

SIZE OR QUANTITY IN PACK

14.1 oz.

MAXIMUM QUANTITY OR GROSS WEIGHT LIMITS FOR FOLLOWING MODES

RAIL	none	BUS	cannot be used
TRUCK	none	PARCEL POST	cannot be used
WATER CARRIER	none	UNITED PARCEL	27.5 Kg.
AIR	300#	IATA Article	#1023
	Air Freight only	Packing Note	#200

MARKING REQUIREMENTS FOR OUTER CONTAINER

MODE	MARKING
<input checked="" type="checkbox"/> RAIL	<p>CONTENTS: Liquefied petroleum gas. Inside containers comply with prescribed DOT regulations. THIS END UP.</p>
<input checked="" type="checkbox"/> TRUCK	
<input checked="" type="checkbox"/> WATER CARRIER	
<input checked="" type="checkbox"/> AIR cargo only	
<input type="checkbox"/> BUS	
<input type="checkbox"/> PARCEL POST	
<input checked="" type="checkbox"/> UNITED PARCEL	

LABEL REQUIRED IF NOT EXEMPT

MODE	LABEL
<input checked="" type="checkbox"/> RAIL	<p>UN Class #2 FLAMMABLE GAS</p>
<input checked="" type="checkbox"/> TRUCK	
<input checked="" type="checkbox"/> WATER CARRIER	
<input checked="" type="checkbox"/> AIR cargo only	
<input type="checkbox"/> BUS	
<input type="checkbox"/> PARCEL POST	
<input checked="" type="checkbox"/> UNITED PARCEL	

C. SHIPPING PAPERS OR DOCUMENTS INFORMATION (USE ADDITIONAL SHEETS IF NECESSARY FOR DETAILS)

CERTIFICATE REQUIRED
CHARGED PRESSURE 200 psi typ. 95°F.
CUBIC INCH DISPLACEMENT OF PRESSURE VESSEL
SPECIAL STOWAGE REQUIREMENT OR INSTRUCTION FOR CARRIER

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
62	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

OTHER INFORMATION SUCH AS RESTRICTIONS FOR SHIPMENT VIA CARGO AIRCRAFT ONLY Cannot be shipped by parcel post, bus or passenger air craft. Ship on passenger vessel as deck cargo only.

Ship inlet end up.
PACKAGING REQUIREMENTS (S)

Flammable Gas

IF YES, SPECIFY THOSE REQUIREMENT SUCH AS TEMPERATURE LIMITS LOCATION ON CARRIER VEHICLE, EXPOSURE OR STOWAGE WARNING INSTRUCTIONS, ETC.

SECTION X

SPECIAL PRECAUTION & CONCLUSION

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Handle per 49 CFR 172.101

BY

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TITLE Product & Process Engineering Manager

DATE