Date Issued: 1997-06-03 Supersedes: 1997-03-24

845/20

TEXACO

MATERIAL SAFETY DATA SHEET NOTE: Read and understand Material Safety Data Sheet before handling or disposing of product.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY
Product Code and Name:

70601 ACETONE

Chemical Name and/or Family or Description:

Ketone

Manufacturer's Name and Address:

TEXACO REFINING AND MARKETING, INC

P.O. Box 7812

Universal City, CA 91608

JAN 2 2 2001

Telephone Numbers:

: (914) 831-3400 Transportation Emergency-Company

CHEMTREC (USA): (800) 424-9300 In Canada: (800) 567-7455

Health Emergency

(914) 831-3400 -Company :

General MSDS Assistance

(914) 838-7204 (713) 432-3383

Texaco FaxBack System

: (914) 838-7336

Technical Information

-Fuels -Chemical : (512) 459-6543

-Lubricant/: (800) 782-7852(Option 4) Antifreezes/Fuel Additives

-Solvents : (800) 876-3738

2. COMPOSITION/INFORMATION ON INGREDIENTS

THE CRITERIA FOR LISTING COMPONENTS IN THE COMPOSITION SECTION IS AS FOLLOWS: CARCINOGENS ARE LISTED WHEN PRESENT AT 0.1 % OR GREATER; COMPONENTS WHICH ARE OTHERWISE HAZARDOUS ACCORDING TO OSHA ARE LISTED WHEN PRESENT AT 1.0 % OR GREATER; NON-HAZARDOUS COMPONENTS ARE LISTED AT 3.0 % OR GREATER. THIS IS NOT INTENDED TO BE A COMPLETE COMPOSITIONAL DISCLOSURE. REFER TO SECTION 14 FOR APPLICABLE STATES' RIGHT TO KNOW AND OTHER REGULATORY INFORMATION.

Product and/or Component(s) Carcinogenic According to:

OSHA IARC NTP OTHER NONE

Composition: (Sequence Number and Chemical Name)

Seq. Chemical Name

Range in % CAS Number

67-64-1

100.00

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200).

* COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

Exposure Limits referenced by Sequence Number in the Composition Section

Seq. Limit 01 750

01 * Acetone

ppm TWA-OSHA

ppm STEL-OSHA 01 1000

750 ppm TWA-ACGIH 01

ppm STEL-ACGIH

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance: Colorless liquid

DANGER 1

Pungent odor

WARNING STATEMENT

EXTREMELY FLAMMABLE LIQUID AND VAPOR

VAPOR MAY CAUSE FLASH FIRE

MAY CAUSE DIZZINESS AND DROWSINESS

MAY CAUSE EYE IRRITATION

ASPIRATION HAZARD IF SWALLOWED -CAN ENTER LUNGS AND CAUSE DAMAGE PAGE:

N.D. - NOT DETERMINED - LESS THAN

N.A. - NOT APPLICABLE

N.T. - NOT TESTED

- GREATER THAN

NAME: ACETONE

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3. HAZARD IDENTIFICATION (CONT)

HMIS

NFPA

Health.

Reactivity: 0

Health:

Reactivity: 0.

4.65 (6.5.) 1.00

Flammability: 3

Special :, -Flammability: 3

X

Special : -

POTENTIAL HEALTH EFFECTS

EYE Primary Route of Exposure: X

SKIN INHALATION X

. INGESTION

14.425.78134

N.T. - NOT TESTED

EFFECTS OF OVEREXPOSURE

Acute:

Eves:

May cause irritation, experienced as discomfort or pain, and seen as excess redness and swelling of the eye, and possible injury to the cornea.

Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling.

Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact; see other effects, below, and Section 11 for information regarding potential long term effects.

Inhalation:

Vapors or mist may cause irritation of the nose and throat.

Inhalation may cause dizziness, drowsiness, euphoria, loss of coordination, disorientation, headache, nausea, and vomiting. In poorly ventilated areas or confined spaces, unconsciousness and asphyxiation may result.

Indestion:

If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur. Aspiration may occur during swallowing or vomiting resulting in lung damage.

Sensitization Properties:

Unknown.

Chronic:

No adverse effects have been documented in humans as a result of chronic exposure. Section 11 may contain applicable animal data.

Medical Conditions Aggravated by Exposure:

Because of its defatting properties, prolonged and repeated skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:

None

4. FIRST AID MEASURES

Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

Skin:

Wash skin with plenty of soap and water for several minutes. Get medical attention if Skin irritation develops or persists.

Ingestion:

If person is conscious and can swallow, give two glasses of water (16 oz.) but do not induce vomiting. If vomiting occurs, give fluids again. Have medical personnel determine if evacuation of stomach or induction of vomiting is necessary. Do not give anything by mouth to an unconscious or convulsing person.

PAGE:

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4. FIRST AID MEASURES (CONT)

Inhalation:

If inhaled, remove to fresh air. If not breathing, clear person's airway and give artificial respiration. If breathing is difficult, qualified medical personnel may administer oxygen. Get medical attention immediately.

Other Instructions:

Aspiration of this product during induced emesis may result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a Poison Center for additional treatment information.

5. FIRE-FIGHTING MEASURES

Ignition Temperature - AIT (degrees F):

Not determined.

Flash Point (degrees F):

-4

Flanmable Limits (%):

Lower: 2.6 Upper: 12.8

Recommended Fire Extinguishing Agents And Special Procedures:

Water may be ineffective on flames but should be used to cool fire-exposed containers and provide protection for persons atempting to stop the leak. Use water spray, dry chemical, alcohol resistant foam or carbon dioxide to extinguish fire.

Unusual or Explosive Hazards:

Danger! Flammable materials may release vapors that travel long distances, ignite and flash back. Containers may explode in a fire. Do not exposeto heat, sparks, flame, or other sources of ignition.

When handling, use non-sparking tools, ground and bond all containers.

Special Protective Equipment for Firefighters:

Wear full protective clothing and positive pressure breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES (Transportation Spills: CHEMTREC (800)424-9300)

Procedures in Case of Accidental Release, Breakage or Leakage: Eliminate all ignition sources including internal combustion engines and power tools. Ventilate area. Barricade the immediate hazard area. Stay upwind and warn of possible downwind explosion hazard. Avoid breathing vapor. Avoid contact with skin, eyes, or clothing. Pressure demand air supplied respirators should always be worn when the airborne concentration of the contaminant or oxygen is unknown. Otherwise, wear respiratory protection and other personal protective equipment as appropriate for the potential exposure hazard. Contain spill if possible. Remove with inert absorbent. Prevent entry into sewers and waterways.

5,000 pounds of product is spilled, then report spill If more than according to SARA 304 and/or CERCLA 102(a) requirements, unless product qualifies for the petroleum exemption (CERCLA Section 101(14)).

7. HANDLING AND STORAGE

Precautions to be Taken in

Use spark-proof tools. Material may be at elevated temperatures and/or pressures. Exercise care when opening bleeders and sampling ports.

Storage:

Ground and bond shipping container, transfer line, and receiving container. Keep away from heat, sparks, flame, and other sources of ignition.

PAGE:

N.T. - NOT TESTED

N.D. - NOT DETERMINED

N.A. - NOT APPLICABLE - GREATER THAN

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment (Type)

Eye/Face Protection:

Avoid eye contact. Chemical type goggles should be worn. Do not wear contact lenses.

Skin Protection:

Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned.

Respiratory Protection:

Airborne concentrations should be kept to lowest levels possible. vapor, mist or dust is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

Ventilation:

Use explosion-proof equipment to maintain adequate ventilation to meet occupational exposure limits, if applicable (see below), prevent accumulation of explosive air-gas mixtures, and avoid significant oxygen displacement. Oxygen levels should be at least 19.5% in confined spaces or other work areas (OSHA value).

Exposure Limit for Total Product:

Acetone: OSHA PEL-TWA 750 ppm; STEL 1000 ppm ACGIH TLV-TWA 750 ppm; STEL 1000 ppm

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Colorless liquid

Odor:

Pungent odor

Boiling Point (degrees F):

Melting/freezing point (degrees F):

-137

Specific Gravity (water=1):

.791

pH of undiluted product:

Not determined.

Vapor Pressure:

157 mmHg at 68.0

Viscosity:

< 20 cSt at 40.0 C

VOC Content:

Not determined.

Vapor Density (air=1):

Solubility in Water (%):

> 10

Other: None



NAME: ACETONE

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10 STABILITY AND REACTIVITY

This Material Reacts Violently With:

X

(If Others is checked below, see comments for details)

X

Heat Strong Oxidizers Others None of These Water

Comments:

None

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones may be formed on burning. Heating in air may produce irritating aldehydes, acids, and ketones.

Hazardous Polymerizations: DO NOT OCCUR

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION(ANIMAL TOXICITY DATA)

Median Lethal Dose

Ora1:

LD50 8.50 - 10.70 g/kg (rat) practically non-toxic

Inhalation:

Not determined.

Dermal:

LD50 20.00 g/kg (rabbit) practically non-toxic

Irritation Index, Estimation of Irritation (Species)

Skin:

(Draize) Believed to be > .50 - 3.00 /8.0 (rabbit) slightly irritating

(Draize) Believed to be > 25.00 - 50.00 /ii0 (rabbit) moderately irritating

Sensitization:

Not determined.

Other:

None

12. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

This product (as presently constituted) has the RCRA characteristic of ignitability and is also identified under RCRA as acetone. If discarded in its present form, it would have the hazardous waste numbers D001 and U002. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may change the classification to non-hazardous, or hazardous for reasons other than, or in addition to, ignitable and acetone.

Do not allow to enter drains or sewers. Can cause explosion.

13. TRANSPORT INFORMATION

Transportation

DOT:

Proper Shipping Name:

Acetone

Hazard Class:

Identification Number: UN 1090

Packing Group: II Label Required:

Flammable liquid

This product contains a DOT Hazardous Substance or Substances, listed in Section 14 of the MSDS. If the product's shipping container holds at least 5,000 lbs, then the DOT information must be accompanied with RQ notation, or, an otherwise 'Not Regulated' product will be classified as Environmentally Hazardous (solid/liquid) N.O.S., Class 9, unless the product qualifies for the petroleum exemption (49 CFR 171.8).

PAGE:

5 N.A. - NOT APPLICABLE

N.T. - NOT TESTED

VIV	

PRODUCT CODE: 70601 NAME: ACETONE	Date Issued: 1997-06-03 Supersedes: 1997-03-24
13. TRANSPORT INFORMATION (CONT)	
IMDG: Proper Shipping Name:	
Not evaluated	 A. Martin, M. Martin, M. C. Lander, M. C. Lander, M. Schwerfer, P. Martin, M. W. Schmidt, Phys. Rev. Lett. 10, 128 (1997). A. Martin, M. S. Martin, M. Martin, M. S. Martin, M. S. Martin, M. S. Martin, M. S. Martin,
ICAO: Proper Shipping Name: Not evaluated	79 (1997)
TDG: Proper Shipping Name: Not evaluated	
14. REGULATORY INFORMATION	
Federal Regulations: SARA Title III: Section 302/304 Extremely Hazardous Substated Chemical Name None Section 302/304 Extremely Hazardous Substated Chemical RQ None RQ None	CAS Number Range in %
Section 311 Hazardous Categorization: Acute Chronic Fire Pressure Rea X _ X _	active N/A
Section 313 Toxic Chemical Chemical Name None	CAS Number Concentration
CERCLA 102(a)/DOT Hazardous Substances: (+ Seq. Chemical Name O1+ Acetone	indicates DOT Hazardous Substance) CAS Number Range in % 67-64-1 100.00
CERCLA/DOT Hazardous Substances (Sequence I	Numbers and RQ's):
TSCA Inventory Status: This product, or its components, are liste Toxic Substance Control Act (TSCA) Chemica	ed on or are exempt from the
Other: None.	
State Regulations: California Proposition 65: The following detectable components of this or belong to classes of substances, known to cause cancer and/or reproductive toxici Chemical Name None	to the State of California ty.
International Regulations: Export Notification (TSCA-12b): This product may be subject to export notification (12(b); contains: Acetone	fication under TSCA
WHMIS Classification: Class B, Div 2: Flammable liquid Class D, Div 2, Subdiv B: Irritant	
Canada Inventory Status: This product, or its components, are list Canadian Domestic Substance List (DSL).	ed on or are exempt from the

PAGE: 6

N.A. - NOT APPLICABLE

> - GREATER THAN

N.T. - NOT TESTED

NAME: ACETONE

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14. REGULATORY INFORMATION (CONT)

EINECS Inventory Status:

This product, or its components, are listed on or are exempt from the European Inventory of Existing Chemical Substances (EINECS) or the European List of Notified Chemical Substances (ELINCS).

Australia Inventory Status:

This product, or its components, are listed on or are exempt from the Australian Inventory of Chemical Substances (AICS).

Japan Inventory Status:

This product, or its components, are listed on or are exempt from the Japanese Ministry of International Trade and Industry (MITI) inventory.

15. ENVIRONMENTAL INFORMATION

Acuatic Toxicity:

Not determined.

Mobility:

Not determined.

Persistence and Biodegradability:

Not determined.

Potential to Bioaccumulate:

Not determined.

Remarks:

None

16. OTHER INFORMATION

None

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF TEXACO'S PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. SHEETS ARE AVAILABLE FOR ALL TEXACO PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL TEXACO PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. TEXACO DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

Revised, Supersedes: 1997-03-24 X Date: 1997-06-03 New Date printed: 1997-06-24

Inquiries regarding MSDS should be directed to: Texaco Inc. Manager, Product Safety P.O. Box 509

12508 Beacon, N.Y.

PLEASE SEE NEXT PAGE FOR PRODUCT LABEL

PAGE:

N.A. - NOT APPLICABLE

N.T. - NOT TESTED

N.D. - NOT DETERMINED - GREATER THAN

NAME: ACETONE

Date Issued: 1997-06-03 Supersedes: 1997-03-24

17. PRODUCT LABEL

Label Date: 1997-06-03

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

70601 ACETONE

WARNING STATEMENT

DANGER !

EXTREMELY FLAMMABLE LIQUID AND VAPOR VAPOR MAY CAUSE FLASH FIRE MAY CAUSE DIZZINESS AND DROWSINESS MAY CAUSE EYE IRRITATION ASPIRATION HAZARD IF SWALLOWED -CAN ENTER LUNGS AND CAUSE DAMAGE

PRECAUTIONARY MEASURES

- -Keep away from heat, sparks or flame.
- -Use only with adequate ventilation.
- -Avoid breathing vapor, mist, or gas. -Avoid contact with eyes.
- -Keep container closed.
- -Wash thoroughly after handling.

FIRST AID

Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

Skin Contact:

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

If person is conscious and can swallow, give two glasses of water (16 oz.) but do not induce vomiting. If vomiting occurs, give fluids again. Have medical personnel determine if evacuation of stomach or induction of vomiting is necessary. Do not give anything by mouth to an unconscious or convulsing person.

Inhalation:

If inhaled, remove to fresh air. If not breathing, clear person's airway and give artificial respiration. If breathing is difficult, qualified medical personnel may administer oxygen. Get medical attention immediately.

Note to Physician:

Aspiration of this product during induced emesis may result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a Poison Center for additional treatment information.

FIRE

In case of fire, use water spray, dry chemical, alcohol resistant foam, or carbon dioxide. Water may be ineffective on flames. Use water spray to keep containers cool and protect personnel attempting to stop the leak.

5,000 pounds of product is spilled, then report spill according to SARA 304 and/or CERCLA 102(a) requirements, unless product qualifies for the petroleum exemption (CERCLA Section 101(14)).

Chemical Name CAS Number Range in %

Acetone

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200). * COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

HMIS

Pennsylvania Special Hazardous Substance(s) CAS Number___ Range in %

67-64-1

NFPA

100.00

Health: Reactivity: 0 Health: Reactivity: 0 Flammability: 3 Special Flammability: 3 Special.

PAGE: N.D. - NOT DETERMINED < - LESS THAN N.A. - NOT APPLICABLE > - GREATER THAN N.T. - NOT TESTED

NAME: ACETONE

Date Issued: 1997-06-03 Supersedes: 1997-03-24

17. PRODUCT LABEL (CONT)

Label Date: 1997-06-03

Transportation

: TOO

Proper Shipping Name:

Acetone

Hazard Class:

Identification Number: UN 1090

Packing Group: II Label Required: Flammable liquid

This product contains a DOT Hazardous Substance or Substances, listed in Section 14 of the MSDS. If the product's shipping container holds at least 5,000 lbs, then the DOT information must be accompanied with RQ notation, or, an otherwise 'Not Regulated' product will be classified as Environmentally Hazardous (solid/liquid) N.O.S., Class 9, unless the product qualifies for the petroleum exemption (49 CFR 171.8).

Misuse of empty containers can be hazardous. Empty containers can CAUTION: be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum

bungs in place.

Manufacturer's Name and Address:

TEXACO REFINING AND MARKETING, INC

P.O. Box 7812

Universal City, CA 91608

(914) 831-3400 TRANSPORTATION EMERGENCY Company:

(800) 424-9300 CHEMTREC:

(914) 831-3400 Company: HEALTH EMERGENCY