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# 1-PENTENE- MATERIAL SAFETY DATA SHEET

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# 24 Hour EMERGENCY CONTACT

U.S- CHEMTREC 1-800-424-9300

CANADA- CANUTEC 613-996-6666

# 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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# Matheson Tri-Gas, Inc.

The telephone numbers listed below are emergency numbers, please contact your <u>local</u> <u>branch</u> for routine inquiries.

### USA

### **CANADA**

959 Route 46 East Parsippany, New Jersey 07054-0624 USA **Phone:** 973-257-1100 530 Watson Street Whitby, Ontario L1N 5R9 Canada **Phone:** 905-668-3570

SUBSTANCE: 1-PENTENE

SYMBOL: C<sub>5</sub>H<sub>10</sub>

TRADE NAMES/SYNONYMS:

ALPHA-N-AMYLENE; PROPYLETHYLENE; PENTENE; AMYLENE; UN 1108; C5H10;

MAT18212

CHEMICAL FAMILY: hydrocarbons, aliphatic

CREATION DATE: Jan 24 1989 REVISION DATE: Mar 16 1999

# 2. COMPOSITION, INFORMATION ON INGREDIENTS

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**COMPONENT:** 1-PENTENE

**CAS NUMBER:** 109-67-1

**EC NUMBER (EINECS):** 203-694-5

PERCENTAGE: >99.0

**COMPONENT: INHIBITOR** 

**CAS NUMBER:** Not assigned.

**EC NUMBER:** Not assigned.

PERCENTAGE: <0.1

# 3. HAZARDS IDENTIFICATION

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

WHMIS CLASSIFICATION: B

# **\_**

# **EC CLASSIFICATION (ASSIGNED):**

No classification assigned.

# **EMERGENCY OVERVIEW:**

Color: colorless

Physical Form: liquid

Odor: unpleasant odor

Major Health Hazards: espiratory tract irritation, skin irritation, eye irritation, central nervous

system depression, difficulty breathing

Physical Hazards: Flammable liquid and vapor. Vapor may cause flash fire.

#### **POTENTIAL HEALTH EFFECTS:**

#### INHALATION:

**Short Term Exposure:** irritation, nausea, vomiting, symptoms of drunkenness, suffocation,

convulsions, coma

Long Term Exposure: no information on significant adverse effects

SKIN CONTACT:

**Short Term Exposure:** irritation

Long Term Exposure: same as effects reported in short term exposure

**EYE CONTACT:** 

Short Term Exposure: irritation

Long Term Exposure: same as effects reported in short term exposure

INGESTION:

**Short Term Exposure:** nausea, stomach pain, symptoms of drunkenness **Long Term Exposure:** no information on significant adverse effects

**CARCINOGEN STATUS:** 

OSHA: N NTP: N IARC: N

#### 4. FIRST AID MEASURES

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#### INHALATION:

When safe to enter area, remove from exposure. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed. Keep warm and at rest. Get medical attention immediately.

#### SKIN CONTACT:

Remove contaminated clothing, jewelry, and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Get medical attention, if needed.

# **EYE CONTACT:**

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

### INGESTION:

Get medical attention immediately.

# NOTE TO PHYSICIAN:

For inhalation, consider oxygen. For ingestion, consider gastric lavage.

# 5. FIRE FIGHTING MEASURES

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#### 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. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion.

### **EXTINGUISHING MEDIA:**

alcohol resistant foam, carbon dioxide, regular dry chemical, water

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 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). Do not attempt to extinguish fire unless flow of material can be stopped first. Flood with fine water spray. Do not scatter spilled material with high-pressure water streams. Cool containers with water spray until well after the fire is out. Apply water from a protected location or from a safe distance. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

#### FLASH POINT:

-18 F (-28 C) (CC)

# LOWER FLAMMABLE LIMIT:

1.5%

### **UPPER FLAMMABLE LIMIT:**

8.7%

# **AUTOIGNITION:**

527 F (275 C)

# FLAMMABILITY CLASS (OSHA):

IΑ

# 6. ACCIDENTAL RELEASE MEASURES

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#### 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.

#### 7. HANDLING AND STORAGE

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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

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**EXPOSURE LIMITS:** 

1-PENTENE:

No occupational exposure limits established.

**VENTILATION:** Provide local exhaust ventilation system. 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:** 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.

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode.

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

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

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

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PHYSICAL STATE: liquid

**COLOR:** colorless

**ODOR:** unpleasant odor

**MOLECULAR WEIGHT:** 70.13

MOLECULAR FORMULA: C-H3-(C-H2)2-C-H-C-H2

**BOILING POINT:** 86 F (30 C)

FREEZING POINT: -216 F (-138 C)

VAPOR PRESSURE: 495 mmHg @ 18 C

VAPOR DENSITY (air=1): 2.4

**SPECIFIC GRAVITY:** 0.6405

WATER SOLUBILITY: insoluble

PH: Not available

**VOLATILITY:** Not available

**ODOR THRESHOLD:** 0.19 ppm

**EVAPORATION RATE:** Not available

**COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available** 

**SOLVENT SOLUBILITY:** 

Soluble: alcohol, ether, benzene

# 10. STABILITY AND REACTIVITY

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#### REACTIVITY:

Stable at normal temperatures and pressure. May form explosive peroxides. Avoid contact with air, light or storage and use above room temperature.

#### **CONDITIONS TO AVOID:**

Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.

#### **INCOMPATIBILITIES:**

oxidizing materials, halogens, acids

#### HAZARDOUS DECOMPOSITION:

Thermal decomposition products: oxides of carbon

#### POLYMERIZATION:

Will not polymerize.

### 11. TOXICOLOGICAL INFORMATION

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#### 1-PENTENE:

# **LOCAL EFFECTS:**

Irritant: inhalation, skin, eye

# **TARGET ORGANS:**

central nervous system

# 12. ECOLOGICAL INFORMATION

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Not available

# 13. DISPOSAL CONSIDERATIONS

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

# 14. TRANSPORT INFORMATION

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# U.S. DOT 49 CFR 172.101. SHIPPING NAME-UN NUMBER; HAZARD CLASS; PACKING GROUP; LABEL:

1-Pentene-UN1108; 3; I; Flammable liquid



# 15. REGULATORY INFORMATION

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**U.S. REGULATIONS:** 

TSCA INVENTORY STATUS: Y

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CERCLA SECTION 103 (40CFR302.4): N

**SARA SECTION 302 (40CFR355.30):** N

**SARA SECTION 304 (40CFR355.40):** N

**SARA SECTION 313 (40CFR372.65):** N

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

ACUTE: Y CHRONIC: N FIRE: Y REACTIVE: N

**SUDDEN RELEASE:** N

OSHA PROCESS SAFETY (29CFR1910.119): N

**STATE REGULATIONS:**California Proposition 65: N

**EUROPEAN REGULATIONS:** 

**EC NUMBER (EINECS):** 203-694-5

# **16. OTHER INFORMATION**

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