

MSDS Number: **P1199** * * * * * *Effective Date: 02/12/04* * * * * * *Supersedes: 05/03/01*



From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 613-996-6666

Outside U.S. And Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

2-Pentene

1. Product Identification

Synonyms: beta-n-Amylene; sym-Methylethylethylene

CAS No.: 109-68-2

Molecular Weight: 70.13

Chemical Formula: CH₃CH₂CH:CHCH₃

Product Codes: T018

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
2-Pentene	109-68-2	90 - 100%	Yes

3. Hazards Identification

Emergency Overview

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY BE HARMFUL IF INHALED. AN ASPHYXIANT. VAPOR REDUCES OXYGEN AVAILABLE FOR BREATHING.

J.T. Baker SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 1 - Slight

Flammability Rating: 4 - Extreme (Flammable)

Reactivity Rating: 1 - Slight

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER

Storage Color Code: Red (Flammable)

Potential Health Effects

Inhalation:

A simple asphyxiant; may cause suffocation by displacing the oxygen in air. Inhalation of small amounts may cause drowsiness, giddiness, euphoria, delirium, difficulty breathing, loss of coordination, and disorientation. In high concentrations, it acts as a weak anesthetic.

Ingestion:

None identified.

Skin Contact:

None identified.

Eye Contact:

None identified.

Chronic Exposure:

None identified.

Aggravation of Pre-existing Conditions:

Persons with pre-existing respiratory conditions or conditions involving reduced blood oxygen-carrying capacity might have increased sensitivity to this substance.

4. First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire:

Flash point: < -20C (< -4F) CC

Extremely Flammable Liquid and Vapor! Vapor may cause flash fire. Contact with strong oxidizers may cause fire.

Explosion:

Sealed containers may rupture when heated. Above the flash point, explosive vapor-air mixtures may be formed. Vapors can flow along surfaces to distant ignition source and flash back. Sensitive to static discharge.

Fire Extinguishing Media:

Use alcohol foam, dry chemical or carbon dioxide. (Water may be ineffective.) Water spray may be used to keep fire exposed containers cool. Move exposed containers from fire area, if it can be done without risk. Do not allow water runoff to enter sewers or waterways.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as

specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. If symptoms of asphyxiation exist, move the victim to fresh air and get medical attention.

J. T. Baker SOLUSORB® solvent adsorbent is recommended for spills of this product.

7. Handling and Storage

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Do Not attempt to clean empty containers since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to the substance is apparent and engineering controls are not feasible, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

Colorless liquid

Odor:

Faint pungent odor.

Solubility:

Negligible.

Density:

0.65

pH:

No information found.

% Volatiles by volume @ 21C (70F):

100

Boiling Point:

37C (99F)

Melting Point:

-140C (-220F)

Vapor Density (Air=1):

2.4

Vapor Pressure (mm Hg):

60.8 @ 25C (77F)

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

May form carbon oxides when heated to decomposition.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Oxidizing agents.

Conditions to Avoid:

Heat, flames, ignition sources and incompatibles.

11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
2-Pentene (109-68-2)	No	No	None

12. Ecological Information

Environmental Fate:

No information found.

Environmental Toxicity:

No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: ISOPENTENES
Hazard Class: 3
UN/NA: UN2371
Packing Group: I
Information reported for product/size: 25ML

International (Water, I.M.O.)

Proper Shipping Name: ISOPENTENES
Hazard Class: 3
UN/NA: UN2371
Packing Group: I
Information reported for product/size: 25ML

International (Air, I.C.A.O.)

Proper Shipping Name: ISOPENTENES
Hazard Class: 3
UN/NA: UN2371
Packing Group: I
Information reported for product/size: 25ML

15. Regulatory Information

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-----\Chemical Inventory Status - Part 1\-----
Ingredient                                TSCA  EC   Japan  Australia
-----
2-Pentene (109-68-2)                     Yes   Yes   Yes    Yes
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-----\Chemical Inventory Status - Part 2\-----
Ingredient                                Korea  DSL   NDSL  Phil.
-----
2-Pentene (109-68-2)                     Yes   Yes   No    Yes
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-----\Federal, State & International Regulations - Part 1\-----
Ingredient                                -SARA 302-  -SARA 313-
RQ   TPQ   List  Chemical Catg.
-----
2-Pentene (109-68-2)                     No    No    No    No
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-----\Federal, State & International Regulations - Part 2\-----
Ingredient                                -RCRA-    -TSCA-
CERCLA  261.33    8(d)
-----
2-Pentene (109-68-2)                     No        No        No
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Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: Yes Chronic: No Fire: Yes Pressure: No
Reactivity: No (Pure / Liquid)

Australian Hazchem Code: 3[Y]E

Poison Schedule: None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: **0** Flammability: **4** Reactivity: **0**

Label Hazard Warning:

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY BE HARMFUL IF INHALED. AN ASPHYXIANT. VAPOR REDUCES OXYGEN AVAILABLE FOR BREATHING.

Label Precautions:

Keep away from heat, sparks and flame.

Keep container closed.

Use only with adequate ventilation.

Do not enter storage areas or confined spaces unless adequately ventilated.

Label First Aid:

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Product Use:

Laboratory Reagent.

Revision Information:

No Changes.

Disclaimer:

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