

## Burdick & Jackson

# Material Safety Data Sheet

## Cyclopentane

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Cyclopentane

**OTHER/GENERIC NAMES:** Cyclopentane

**PRODUCT USE:** Solvent

**MANUFACTURER:** Honeywell, Burdick & Jackson  
1953 South Harvey Street  
Muskegon, MI 49442

**FOR MORE INFORMATION CALL:**  
(Monday-Friday, 8:00am-5:00pm)  
1-800-368-0050

**IN CASE OF EMERGENCY CALL:**  
(24 Hours/Day, 7 Days/Week)  
1-800-707-4555 (Honeywell -Domestic)  
602-365-4980 (Honeywell - International)  
**For Transportation Emergencies:**  
800-424-9300 (CHEMTREC - Domestic)  
703-527-3887 (CHEMTREC - International)

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
Cyclopentane	287-92-3	100

Trace impurities and additional material names not listed above may also appear in Section 15 toward the end of the MSDS. These materials may be listed for local "Right-To-Know" compliance and for other reasons.

### 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Extremely flammable liquid and vapor. Causes skin, eye and respiratory tract irritation. Harmful if swallowed or inhaled. Can cause central nervous system depression.

#### POTENTIAL HEALTH HAZARDS

**SKIN:** Irritant. Can cause dermatitis through defatting of the skin.

**EYES:** Liquid and high vapor concentration can cause irritation, redness and itching.

**INHALATION:** Can cause respiratory tract irritation, headache, nausea, drowsiness and central nervous system depression. High concentrations are expected to have a narcotic effect with dizziness, coma and, in extreme cases, respiratory failure.

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**INGESTION:** Can cause abdominal pain, nausea, diarrhea, vomiting, and central nervous system depression. Aspiration into the lungs can cause chemical pneumonia, lung injury and death.

**DELAYED EFFECTS:** None determined.

Ingredients found on one of the OSHA designated carcinogen lists are listed below.

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>
No ingredients listed in this section.			

#### **4. FIRST AID MEASURES**

**SKIN:** Wash with soap and water and flush with water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Launder contaminated clothing and clean shoes before reuse.

**EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

**INHALATION:** Remove from exposure area to fresh air. If breathing is difficult, give oxygen provided a qualified operator is available. If breathing has stopped, apply artificial respiration. Get immediate medical attention.

**INGESTION:** **Aspiration hazard.** If conscious, rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

**ADVICE TO PHYSICIAN:** No specific antidote. Treat symptomatically and supportively.

#### **5. FIRE FIGHTING MEASURES**

##### FLAMMABLE PROPERTIES

<b>FLASH POINT:</b>	19°F (-7°C)
<b>FLASH POINT METHOD:</b>	TAG Closed Cup
<b>AUTOIGNITION TEMPERATURE:</b>	682°F (361°C)
<b>UPPER FLAME LIMIT (volume % in air):</b>	Not Determined
<b>LOWER FLAME LIMIT (volume % in air):</b>	1.5
<b>FLAME PROPAGATION RATE (solids):</b>	Not Applicable
<b>OSHA FLAMMABILITY CLASS:</b>	1B - Flammable Liquid

##### **EXTINGUISHING MEDIA:**

Carbon dioxide, dry chemical, water spray and foam. Water may be ineffective.

##### **UNUSUAL FIRE AND EXPLOSION HAZARDS:**

Dangerous fire hazard when exposed to heat or flame. Vapor may travel a considerable distance to a source of ignition and flash back. Explosive vapor-air mixtures may be formed when heated above the flash point. Sealed containers may rupture when heated. Sensitive to static discharge.

##### **SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:**

Wear NIOSH approved self-contained breathing apparatus, and full protective clothing.

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Water may not be effective in extinguishing a fire. Use water spray to cool fire-exposed containers and to reduce rate of burning, taking care not to spread the fire. Heat will build pressure and rupture closed storage containers.

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#### **6. ACCIDENTAL RELEASE MEASURES**

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**IN CASE OF SPILL OR OTHER RELEASE:** (Always wear recommended personal protective equipment.)

Isolate hazard area. Remove all ignition sources and ventilate spill area. Wear appropriate protective clothing and use approved respirator equipment. Contain and recover liquid when possible. Use non-sparking tools and equipment. Absorb with and inert material and place in an approved chemical waste container. For large spill, dike up with inert material and transfer into same container. Do not allow to enter into sewers or waterways.

Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.

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#### **7. HANDLING AND STORAGE**

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**NORMAL HANDLING:** (Always wear recommended personal protective equipment.)

Ground containers for transfer of contents. Keep away from sparks, open flames and ignition sources. Do not get in eyes, on skin or clothing. Use with adequate ventilation. No smoking in areas of use.

**STORAGE RECOMMENDATIONS:**

Store in an area designed for storage of flammable liquids. (OSHA 29 CFR 1910.106)

Store in a cool, well-ventilated area away from oxidizers and ignition sources. Protect against physical damage. Outside or detached storage is preferable. Inside storage should be in a standard flammable liquid storage room or cabinet. No smoking in storage areas.

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#### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**ENGINEERING CONTROLS:**

Provide general or local exhaust ventilation systems to maintain airborne concentrations below exposure levels. Regularly inspect all electrical and mechanical equipment used with or near cyclopentane. Ground and bond metal containers to minimize static sparks.

**PERSONAL PROTECTIVE EQUIPMENT**

**SKIN PROTECTION:**

Impervious gloves and clothing suitable to prevent skin contact. Clothing should be static free. Inspect for signs of degradation before each use. Replace as needed.

**EYE PROTECTION:**

Wear safety glasses with non-perforated sideshields for normal handling. Goggles or a full-face shield may be necessary depending on quantity of material and conditions of use.

**RESPIRATORY PROTECTION:**

Not required for properly ventilated areas. If there is potential for inhalation of vapor or mist, use an appropriate NIOSH approved respirator. Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

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The respirator must be selected based on contamination levels and use conditions found in the workplace, must not exceed the working limits of the respirator and be approved by the National Institute for Occupational Safety and Health (NIOSH) and used in accordance with Occupational Safety and Health Administration (OSHA) 29 CFR 1910.134.

#### **ADDITIONAL RECOMMENDATIONS:**

Emergency eyewash fountains and safety showers should be available in the vicinity of any potential exposure.

#### **EXPOSURE GUIDELINES**

<u>INGREDIENT NAME</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>NIOSH REL</u>
Cyclopentane	600 ppm TWA (8 hr)	600 ppm TWA	600 ppm TWA (10 hr)

- \* = Limit established by Honeywell International, Inc.
- \*\* = Workplace Environmental Exposure Level (AIHA).
- \*\*\* = Biological Exposure Index (ACGIH).

#### **OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:**

None

### **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>APPEARANCE:</b>	Clear, colorless	
<b>PHYSICAL STATE:</b>	Liquid	
<b>MOLECULAR WEIGHT:</b>	70.15	
<b>CHEMICAL FORMULA:</b>	C <sub>5</sub> H <sub>10</sub>	
<b>ODOR:</b>	Strong hydrocarbon.	
<b>SPECIFIC GRAVITY (water = 1.0):</b>	0.745 @ 68°F (20°C).	
<b>SOLUBILITY IN WATER (weight %):</b>	Insoluble.	
<b>pH:</b>	Not Applicable	
<b>BOILING POINT:</b>	120.7°F (49.3°C) @ 760 mm Hg.	
<b>FREEZING POINT:</b>	-137°F (-93.9°C)	
<b>VAPOR PRESSURE:</b>	400 mm Hg @ 68°F (20°C).	
<b>VAPOR DENSITY (air = 1.0):</b>	2.4	
<b>EVAPORATION RATE:</b>	>10	<b>COMPARED TO:</b> BuAc=1.0
<b>% VOLATILES:</b>	100%	
<b>FLASH POINT:</b>	19°F (-7°C)	

(Flash point method and additional flammability data are found in Section 5.)

### **10. STABILITY AND REACTIVITY**

#### **NORMALLY STABLE? (CONDITIONS TO AVOID):**

Stable at room temperature in closed containers under normal storage and handling conditions. Avoid heat, ignition sources, and incompatible materials.

#### **INCOMPATIBILITIES:**

Strong oxidizing agents.

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**HAZARDOUS DECOMPOSITION PRODUCTS:**

Thermal decomposition would be expected to generate carbon monoxide and carbon dioxide.

**HAZARDOUS POLYMERIZATION:**

Not expected to occur.

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## **11. TOXICOLOGICAL INFORMATION**

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**IMMEDIATE (ACUTE) EFFECTS:**

Oral LD<sub>50</sub> (rat): 11,400 mg/kg.  
Inhalation LC<sub>50</sub> (rat): 106 gm/m<sup>3</sup>.  
Oral LD<sub>50</sub> (mouse): 12,800 mg/kg.  
Inhalation LC<sub>50</sub> (mouse): 72 gm/m<sup>3</sup>.

**DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS:**

No data is available.

**OTHER DATA:**

None.

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## **12. ECOLOGICAL INFORMATION**

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No data is available.

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## **13. DISPOSAL CONSIDERATIONS**

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**RCRA**

**Is the unused product a RCRA hazardous waste if discarded?** Yes

**If yes, the RCRA ID number is:** D001

**OTHER DISPOSAL CONSIDERATIONS:**

Whatever cannot be saved for recovery or recycling should be handled as a hazardous waste and sent to a RCRA approved incinerator or disposed of in a RCRA approved waste facility. Dispose of container and unused material in accordance with all applicable local, state, and federal regulations.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCA classification and the proper disposal method.

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## **14. TRANSPORT INFORMATION**

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**Proper Shipping Description**

**DOT & IATA:** Cyclopentane, 3, UN 1146, II.

**IMDG:** CYCLOPENTANE, CLASS 3, UN 1146, II.

**Reportable Quantity (RQ):** None.

**Label(s) Required:** Class 3, Flammable Liquid.

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**Emergency Response Guidebook (2000 Edition):** Guide No. 128.

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

**15. REGULATORY INFORMATION****TOXIC SUBSTANCES CONTROL ACT (TSCA)**

**TSCA INVENTORY STATUS:** On the TSCA inventory.

**OTHER TSCA ISSUES:** None

**SARA TITLE III/CERCLA**

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

**INGREDIENT NAME****SARA/CERCLA RQ (lb)****SARA EHS TPQ (lb)**

No ingredients listed in this section

**Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.**

**SECTION 311 HAZARD CLASS:** Immediate, Fire

**SARA 313 TOXIC CHEMICALS:**

The following ingredients are SARA 313 "Toxic Chemicals". CAS numbers and weight percents are found in Section 2.

**INGREDIENT NAME****COMMENT**

No ingredients listed in this section

**STATE RIGHT-TO-KNOW**

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

**INGREDIENT NAME****WEIGHT %    COMMENT**

No ingredients listed in this section

**ADDITIONAL REGULATORY INFORMATION:**

None.

**WHMIS CLASSIFICATION (CANADA):**

Class B, Division 2.

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

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#### FOREIGN INVENTORY STATUS:

Cyclopentane is on the following inventories:

Australian.

Canadian DSL.

Chinese.

EINECS.

Japanese (ENCS & ISHL).

Korean.

Philippine (PICCS).

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#### 16. OTHER INFORMATION

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**CURRENT ISSUE DATE:** April 11, 2002.

**PREVIOUS ISSUE DATE:** None.

#### CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:

Not applicable. New issue.

#### OTHER INFORMATION:

NFPA Classification

Health: 1

Flammability: 3

Reactivity: 0

Specific Hazard 0