

040-007

## 1. Identification

Product identifier: Butane *B202 MPP GAS MATCH*

Other means of identification  
SDS number: WC026

Recommended use: Hand Torch Fuel

Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer/Supplier: Worthington Cylinder Corporation  
Address: 200 Old Wilson Bridge Road  
Columbus, OH 43085  
United States

Email: cylinders@worthingtonindustries.com

Telephone Number: 866-928-2657

CHEMTREC - 24 HOURS:  
Within US and Canada: 800-424-9300  
Outside US and Canada: +1 703-741-5970 (collect calls accepted)

## 2. Hazard(s) identification

Physical hazards: Flammable gases Category 1  
Gases under pressure Liquefied gas

Health hazards: Not classified.

OSHA defined hazards: Not classified.

Label elements



Signal word: Danger

Hazard statement: Extremely flammable gas. Contains gas under pressure; may explode if heated.

Precautionary statement

Prevention: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response: Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

Storage: Protect from sunlight. Store in a well-ventilated place.

Disposal: Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC): May displace oxygen and cause rapid suffocation.

## 3. Composition/information on ingredients

### Mixtures

| Chemical name | CAS number | %     |
|---------------|------------|-------|
| Isobutane     | 75-28-5    | 60-80 |
| Butane        | 106-97-8   | 20-40 |

## 4. First-aid measures

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or poison control center immediately.

|   |   |
|---|---|
| <b>Skin contact</b>   | Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation develops and persists. If frostbite occurs, immerse involved area in warm water (between 100°F/38°C and 110°F/43°C, not exceeding 112°F/44°C). Keep immersed for 20 to 40 minutes. Seek medical assistance. |
| <b>Eye contact</b>  | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.   |
| <b>Ingestion</b>  | Ingestion is not a typical route of exposure for gases or liquefied gases.  |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. May cause drowsiness or dizziness.  |
| <b>Indication of immediate medical attention and special treatment needed</b> | Exposure may aggravate pre-existing respiratory disorders. Treat symptomatically.   |
| <b>General information</b>  | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.  |

## 5. Fire-fighting measures

|  |  |
|--|--|
| <b>Suitable extinguishing media</b>                                  | Dry chemical, CO <sub>2</sub> , water spray, fog, or foam.   |
| <b>Unsuitable extinguishing media</b>                                | Full water jet.  |
| <b>Specific hazards arising from the chemical</b>                    | Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.  |
| <b>Special protective equipment and precautions for firefighters</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.  |
| <b>Fire fighting equipment/instructions</b>                          | Move container from fire area if it can be done without risk.<br><br>Do not extinguish fires unless gas flow can be stopped safely; explosive re-ignition may occur. Promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shutoff. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply. |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials.   |
| <b>General fire hazards</b>  | Extremely flammable gas.   |

## 6. Accidental release measures

|  |  |
|--|--|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Evacuate the area promptly. No action shall be taken involving any personal risk or without suitable training. Keep unnecessary personnel away.<br><br>Ensure adequate ventilation. In case of inadequate ventilation, use respiratory protection. Wear appropriate personal protective equipment (See Section 8). |
| <b>Methods and materials for containment and cleaning up</b>               | Ventilate well, stop flow of gas or liquid if possible. Immediately contact emergency personnel. For waste disposal, see Section 13 of the SDS.  |
| <b>Environmental precautions</b>   | Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent from entering into soil, ditches, sanitary sewers, waterways and/or groundwater.  |

## 7. Handling and storage

|                                      |   |
|--------------------------------------|---|
| <b>Precautions for safe handling</b> | Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. All equipment used when handling the product must be grounded. Use only with adequate ventilation. Do not breathe gas. Do not get in eyes, on skin, on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Keep away from heat, spark, open flames and other sources of ignition.<br><br>Wear appropriate personal protective equipment (See Section 8). Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Risk of vapor concentration on the floor and in low-lying areas. |
|--------------------------------------|---|

**Conditions for safe storage, including any incompatibilities**

Do not store, incinerate, or heat this material above 120 degrees Fahrenheit. Keep away from heat, sparks and open flame. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Secure cylinders in an upright position at all times, close all valves when not in use. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Store in accordance with local, regional, national, and international regulations. Keep container tightly closed and sealed until ready for use. Protect cylinders from damage.

**8. Exposure controls/personal protection**

**Occupational exposure limits**

**US. ACGIH Threshold Limit Values**

| Components              | Type | Value    |
|-------------------------|------|----------|
| Butane (CAS 106-97-8)   | STEL | 1000 ppm |
| Isobutane (CAS 75-28-5) | STEL | 1000 ppm |

**US. NIOSH: Pocket Guide to Chemical Hazards**

| Components              | Type | Value                 |
|-------------------------|------|-----------------------|
| Butane (CAS 106-97-8)   | TWA  | 1900 mg/m3<br>800 ppm |
| Isobutane (CAS 75-28-5) | TWA  | 1900 mg/m3<br>800 ppm |

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**

Follow standard monitoring procedures.

**Appropriate engineering controls**

Provide adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear approved safety glasses or goggles.

**Skin protection**

**Hand protection**

Wear appropriate chemical resistant gloves.

**Other**

Wear protective clothing appropriate for the risk of exposure.

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**Thermal hazards**

Contact with liquefied gas might cause frostbites, in some cases with tissue damage. Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Do not eat, drink or smoke when using the product. Wash thoroughly after handling. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practices.

**9. Physical and chemical properties**

**Appearance**

**Physical state**

Gas (Liquefied).

**Form**

Compressed liquefied gas.

**Color**

Colorless.

**Odor**

Faint. Gasoline-like.

**Odor threshold**

Not available.

**pH**

Not available.

**Melting point/freezing point**

-216.76 °F (-138.2 °C)

**Initial boiling point and boiling range**

-11.7 °F (-24.28 °C)

**Flash point**

-76.3 °F (-60.2 °C)

**Evaporation rate**

Not available.

**Flammability (solid, gas)**

Flammable gas.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** 1.8 %

Butane

911467 Version #: 01 Revision date: - Issue date: 28-May-2015

SDS US

3 / 7

|  |                                 |
|--|---------------------------------|
| <b>Flammability limit - upper (%)</b>          | 8.4 %                           |
| <b>Vapor pressure</b>                          | 28 psig (Approximate)           |
| <b>Vapor density</b>                           | > 2 (Air = 1)                   |
| <b>Relative density</b>                        | 0.57 (H <sub>2</sub> O = 1)     |
| <b>Solubility(ies)</b>                         |                                 |
| <b>Solubility (water)</b>                      | < 0.1 % in water at 70°F        |
| <b>Partition coefficient (n-octanol/water)</b> | Not available.                  |
| <b>Auto-ignition temperature</b>               | 548.33 °F (286.85 °C)           |
| <b>Decomposition temperature</b>               | Not available.                  |
| <b>Viscosity</b>                               | Not available.                  |
| <b>Other information</b>                       |                                 |
| <b>Molecular formula</b>                       | C <sub>4</sub> -H <sub>10</sub> |
| <b>Molecular weight</b>                        | 58.12 g/mol                     |
| <b>Percent volatile</b>                        | 100 %                           |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | The product is non-reactive under normal conditions of use, storage and transport.                                |
| <b>Chemical stability</b>                 | Stable under normal temperature conditions and recommended use.   |
| <b>Possibility of hazardous reactions</b> | Polymerization will not occur. May form explosive mixture with air. This product may react with oxidizing agents. |
| <b>Conditions to avoid</b>                | Heat, flames and sparks.  |
| <b>Incompatible materials</b>             | Strong oxidizing agents. Strong acids. Halogens.  |
| <b>Hazardous decomposition products</b>   | Carbon oxides. Hydrocarbons.  |

## 11. Toxicological information

### Information on likely routes of exposure

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | High concentrations: Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness. |
| <b>Skin contact</b> | Contact with liquefied gas may cause frostbite.  |
| <b>Eye contact</b>  | Contact with liquefied gas may cause frostbite.  |
| <b>Ingestion</b>    | Not likely, due to the form of the product.  |

|   |  |
|---|--|
| <b>Symptoms related to the physical, chemical and toxicological characteristics</b> | Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. May cause drowsiness or dizziness. |
|---|--|

### Information on toxicological effects

|  |  |
|--|--|
| <b>Acute toxicity</b>                    | High concentration: Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. |
| <b>Skin corrosion/irritation</b>         | Contact with liquefied gas might cause frostbites, in some cases with tissue damage.   |
| <b>Serious eye damage/eye irritation</b> | Direct contact with liquefied gas may cause eye damage from frostbite.   |
| <b>Respiratory or skin sensitization</b> |  |
| <b>Respiratory sensitization</b>         | Not classified.  |
| <b>Skin sensitization</b>                | Not classified.  |
| <b>Germ cell mutagenicity</b>            | Not classified.  |
| <b>Carcinogenicity</b>                   | Not classified.  |

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

|                              |                 |
|------------------------------|-----------------|
| <b>Reproductive toxicity</b> | Not classified. |
|------------------------------|-----------------|

|  |   |
|--|---|
| Specific target organ toxicity - single exposure   | Not classified.                           |
| Specific target organ toxicity - repeated exposure | Not classified.                           |
| Aspiration hazard                                  | Not classified.                           |
| Chronic effects                                    | May cause central nervous system effects. |

## 12. Ecological information

|                               |  |
|-------------------------------|--|
| Ecotoxicity                   | Not expected to be harmful to aquatic organisms. |
| Persistence and degradability | The product is readily biodegradable.            |
| Bioaccumulative potential     | The product is not expected to bioaccumulate.    |

### Partition coefficient n-octanol / water (log Kow)

|                         |      |
|-------------------------|------|
| Butane (CAS 106-97-8)   | 2.89 |
| Isobutane (CAS 75-28-5) | 2.76 |

|                       |                        |
|-----------------------|------------------------|
| Mobility in soil      | May evaporate quickly. |
| Mobility in general   | May evaporate quickly. |
| Other adverse effects | None known.            |

## 13. Disposal considerations

|                                       |   |
|---------------------------------------|---|
| Disposal instructions                 | Use the container until empty. Do not dispose of any non-empty container. Empty containers have residual vapor that is flammable and explosive. Cylinders should be emptied and returned to a hazardous waste collection point. Do not puncture or incinerate even when empty. Dispose in accordance with all applicable regulations. |
| Local disposal regulations            | Dispose in accordance with all applicable regulations.  |
| Hazardous waste code                  | D001: Waste Flammable material with a flash point <140 °F   |
| Waste from residues / unused products | Dispose of in accordance with local regulations.  |
| Contaminated packaging                | Since emptied containers may retain product residue, follow label warnings even after container is emptied.   |

## 14. Transport information

### DOT

|                              |   |
|------------------------------|---|
| UN number                    | UN1011  |
| UN proper shipping name      | Butane  |
| Transport hazard class(es)   |   |
| Class                        | 2.1   |
| Subsidiary risk              | -   |
| Label(s)                     | 2.1   |
| Packing group                | Not applicable.   |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions           | 19, T50   |
| Packaging exceptions         | 306   |
| Packaging non bulk           | 304   |
| Packaging bulk               | 314, 315  |

### IATA

|                              |   |
|------------------------------|---|
| UN number                    | UN1011  |
| UN proper shipping name      | Butane  |
| Transport hazard class(es)   |   |
| Class                        | 2.1   |
| Subsidiary risk              | -   |
| Label(s)                     | 2.1   |
| Packing group                | Not applicable.   |
| Environmental hazards        | No.   |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |

### IMDG

|                         |        |
|-------------------------|--------|
| UN number               | UN1011 |
| UN proper shipping name | Butane |

**Transport hazard class(es)**  
**Class** 2.1  
**Subsidiary risk** -  
**Label(s)** 2.1  
**Packing group** Not applicable.  
**Environmental hazards**  
**Marine pollutant** No.  
**EmS** F-D, S-U  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Butane (CAS 106-97-8) LISTED  
Isobutane (CAS 75-28-5) LISTED

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - Yes  
Pressure Hazard - Yes  
Reactivity Hazard - No

### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** Yes

### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Butane (CAS 106-97-8)  
Isobutane (CAS 75-28-5)

**Safe Drinking Water Act (SDWA)** Not regulated.

### US state regulations

#### US. Massachusetts RTK - Substance List

Butane (CAS 106-97-8)  
Isobutane (CAS 75-28-5)

#### US. New Jersey Worker and Community Right-to-Know Act

Butane (CAS 106-97-8)  
Isobutane (CAS 75-28-5)

#### US. Pennsylvania Worker and Community Right-to-Know Law

Butane (CAS 106-97-8)  
Isobutane (CAS 75-28-5)

#### US. Rhode Island RTK

Butane (CAS 106-97-8)  
Isobutane (CAS 75-28-5)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

| Country(s) or region        | Inventory name                                | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Canada                      | Domestic Substances List (DSL)                | Yes                    |
| Canada                      | Non-Domestic Substances List (NDSL)           | Yes                    |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes                    |

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

|                     |  |
|---------------------|--|
| Issue date          | 28-May-2015  |
| Revision date       | -  |
| Version #           | 01   |
| Further information | Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe |
| HMIS® ratings       | Health: 1<br>Flammability: 4<br>Physical hazard: 1                       |

**NFPA ratings**



**Disclaimer**

All information in this Material Safety Data Sheet is believed to be accurate and reliable. However, no guarantee or warranty of any kind is made with regard to the accuracy of information or the suitability of the recommendations contained herein. It is the user's responsibility to assess the safety and toxicity of this product under their own conditions of use and to comply with all applicable laws and regulations. Worthington Cylinder Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.