

### Section 1: Product and Company Identification

**Absolute Accuracy**  
4591 S Wayside Dr  
Houston, TX 77087  
(832) 571-2387

Product Code: 696

**Synonyms:** N/A

**Recommended Use:** CALIBRATION GAS

**Usage Restrictions:** INDUSTRIAL CALIBRATION GAS ONLY

### Section 2: Hazards Identification



## Warning

**Hazard Classification:**

Gases Under Pressure

**Hazard Statements:**

Contains gas under pressure; may explode if heated

**Precautionary Statements**

**Storage:**

Protect from sunlight.

Store in well-ventilated place.

### Section 3: Composition/Information on Ingredients

|                    | CAS #          | Concentration |
|--------------------|----------------|---------------|
| <b>Isobutylene</b> | 115-11-7       | 1PPM          |
| <b>Air</b>         | Not applicable | balance       |

|                    | Chemical Substance | Chemical Family                      | Trade Names  |
|--------------------|--------------------|--------------------------------------|--|
| <b>Isobutylene</b> | ISOBUTYLENE        | Hydrocarbons, Aliphatic, Unsaturated | 2-METHYLPROPENE; ISOBUTENE; LIQUIFIED PETROLEUM GAS; 2-METHYL-1-PROPENE; L.P.G.; GAMMA-BUTYLENE; ASYM-DIMETHYL ETHYLENE; UN 1055 |
| <b>Air</b>         | AIR, COMPRESSED    | Inorganic gases                      | AIR; UN 1002 Nitrogen CAS: 7727-37-9 Oxygen CAS: 7782-44-7   |

## Section 4: First Aid Measures

|                    | Skin Contact   | Eye Contact   | Ingestion  | Inhalation   | Note to Physicians               |
|--------------------|--|---|--|--|----------------------------------|
| <b>Isobutylene</b> | If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention. | Contact with liquid: Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention. | If a large amount is swallowed, get medical attention. | If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention. | For inhalation, consider oxygen. |
| <b>Air</b>         | Wash exposed skin with soap and water.   | Flush eyes with plenty of water.  | If a large amount is swallowed, get medical attention. | If adverse effects occur, remove to uncontaminated area. Get medical attention.  |                                  |

## Section 5: Fire Fighting Measures

|                    | Suitable Extinguishing Media   | Products of Combustion  | Protection of Firefighters   |
|--------------------|--|---|--|
| <b>Isobutylene</b> | Carbon dioxide, regular dry chemical Large fires: Flood with fine water spray. | Carbon monoxide, carbon dioxide, water and toxic and irritating fumes | <ul style="list-style-type: none"> <li>▪ Any self-contained breathing apparatus with a full facepiece.</li> <li>▪ Any self-contained breathing apparatus with a full facepiece.</li> </ul> |
| <b>Air</b>         | Use extinguishing agents appropriate for surrounding fire.                     |   | <ul style="list-style-type: none"> <li>▪ No respirator is required under normal conditions of use.</li> </ul>  |

## Section 6: Accidental Release Measures

|                    | Personal Precautions  | Environmental Precautions                                 | Methods for Containment  |
|--------------------|---|---|--|
| <b>Isobutylene</b> | Keep unnecessary people away, isolate hazard area and deny entry. Do not touch spilled material. Ventilate closed spaces before entering. | Avoid heat, flames, sparks and other sources of ignition. | Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition. |
| <b>Air</b>         |   |   | Stop leak if possible without personal risk.   |

|                    | Methods for Cleanup          | Other Information |
|--------------------|------------------------------|-------------------|
| <b>Isobutylene</b> | Evacuate and ventilate area. | None              |
| <b>Air</b>         |                              |                   |

## Section 7: Handling and Storage

|                    | Handling   | Storage                                      |
|--------------------|--|--|
| <b>Isobutylene</b> | Store and handle in accordance with all current regulations and standards. Grounding and bonding required. Subject to storage regulations: U.S. OSHA 29 CFR 1910.110. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. | Keep separated from incompatible substances. |
| <b>Air</b>         | Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.  |  |

## Section 8: Exposure Controls/Personal Protection

|                    | Exposure Guidelines   |
|--------------------|---|
| <b>Isobutylene</b> | TLV-TWA: 250 ppm Carcinogenicity (ACGIH)                      |
| <b>Air</b>         | AIR, COMPRESSED: No occupational exposure limits established. |

### Engineering Controls

Handle only in fully enclosed systems.

|                    | Eye Protection   | Skin Protection  | Respiratory Protection  |
|--------------------|--|--|---|
| <b>Isobutylene</b> | For the gas: Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. | For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing. | Any self-contained breathing apparatus with a full facepiece. |
| <b>Air</b>         | Eye protection not required under normal conditions.   | Protective clothing is not required under normal conditions.   | No respirator is required under normal conditions of use.     |

### General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

## Section 9: Physical and Chemical Properties

|                    | Physical State | Appearance | Color     | Change in Appearance | Physical Form | Odor           | Taste |
|--------------------|----------------|------------|-----------|----------------------|---------------|----------------|-------|
| <b>Isobutylene</b> | Gas            | Clear      | Colorless | N/A                  | Liquefied gas | Petroleum odor | N/A   |
| <b>Air</b>         | Gas            | Clear      | Colorless |                      | Gas           | Not available  |       |

|                    | Flash Point    | Flammability  | Partition Coefficient | Autoignition Temperature | Upper Explosive Limits | Lower Explosive Limits |
|--------------------|----------------|---------------|-----------------------|--------------------------|------------------------|------------------------|
| <b>Isobutylene</b> | -105 F (-76 C) | Not available | Not available         | 869 F (465 C)            | 0.096                  | 0.018                  |
| <b>Air</b>         |                |               |                       |                          |                        |                        |

|                    | Boiling Point   | Freezing Point  | Vapor Pressure     | Vapor Density | Specific Gravity | Water Solubility | pH             | Odor Threshold                               | Evaporation Rate | Viscosity            |
|--------------------|-----------------|-----------------|--------------------|---------------|------------------|------------------|----------------|--|------------------|----------------------|
| <b>Isobutylene</b> | 19 F (-7 C)     | -220 F (-140 C) | 3278 mmHg @ 37.7 C | 1.9 (Air=1)   | 0.5879 @ 25 C    | Almost insoluble | Not applicable | 20 ppm (46 mg/m <sup>3</sup> ) (unspecified) | Not applicable   | Not available        |
| <b>Air</b>         | -317 F (-194 C) | Not available   | 760 mmHg @ -194 C  | 1             | Not applicable   | Slightly soluble | Not applicable | Not available                                | Not applicable   | 0.01853 cP @ 26.85 C |

|                    | Molecular Weight | Molecular Formula             | Density        | Weight per Gallon | Volatility by Volume | Volatility     | Solvent Solubility                                       |
|--------------------|------------------|-------------------------------|----------------|-------------------|----------------------|----------------|--|
| <b>Isobutylene</b> | 56.12            | C <sub>4</sub> H <sub>8</sub> | Not available  | Not available     | 100%                 | Not applicable | Soluble: Organic solvents, alcohol, ether, sulfuric acid |
| <b>Air</b>         |                  |                               | 1.29 g/L @ 0 C |                   |                      | Not applicable | Slightly Soluble   |

## Section 10: Stability and Reactivity

|                    | Stability                                   | Conditions to Avoid                         | Incompatible Materials |
|--------------------|---|---|------------------------|
| <b>Isobutylene</b> | Stable at normal temperatures and pressure. | Stable at normal temperatures and pressure. | Oxidizing materials    |
| <b>Air</b>         | Stable at normal temperatures and pressure. | Stable at normal temperatures and pressure. | None known             |

|                    | Hazardous Decomposition Products | Possibility of Hazardous Reactions           |
|--------------------|----------------------------------|--|
| <b>Isobutylene</b> | Oxides of carbon                 | Can polymerize in the presence of catalysts. |
| <b>Air</b>         | No hazard expected.              | Will not polymerize.                         |

## Section 11: Toxicology Information

### Acute Effects

|                    | Oral LD50  | Dermal LD50   | Inhalation  |
|--------------------|--|---------------|---|
| <b>Isobutylene</b> | LC50 (rat, inhalation) = 620 g/m <sup>3</sup> 3/4 hours<br>LC50 (mouse, inhalation) = 415 g/m <sup>3</sup> 3/2 hours | Not available | Irritation, nausea, vomiting, headache, symptoms of drunkenness, disorientation, tingling sensation, suffocation, convulsions, coma |
| <b>Air</b>         | Not available  | Not available |   |

|                    | Eye Irritation                        | Skin Irritation             | Sensitization   |
|--------------------|---------------------------------------|-----------------------------|---|
| <b>Isobutylene</b> | Irritation, frostbite, blurred vision | Liquid: burns, frostbite    | Central nervous system depression, difficulty breathing |
| <b>Air</b>         | No information is available           | No information is available | No significant target effects reported.                 |

### Chronic Effects

|                    | Carcinogenicity | Mutagenicity    | Reproductive Effects | Developmental Effects |
|--------------------|-----------------|-----------------|----------------------|-----------------------|
| <b>Isobutylene</b> | Not listed.     | Not established | Not established      | No data               |
| <b>Air</b>         | Not available   | Not available   | No data              | No data               |

## Section 12: Ecological Information

### Fate and Transport

|                    | Eco toxicity   | Persistence / Degradability | Bioaccumulation / Accumulation | Mobility in Environment |
|--------------------|--|-----------------------------|--------------------------------|-------------------------|
| <b>Isobutylene</b> | Fish toxicity: Not available<br>Invertebrate toxicity: | Not available               | Not available                  | Dissipates rapidly.     |

|            |  |               |               |               |
|------------|--|---------------|---------------|---------------|
|            | Not available<br>Algal toxicity: Not expected<br>Phyto toxicity: Not expected<br>Other toxicity: Not available |               |               |               |
| <b>Air</b> | Fish toxicity: Not available   | Not available | Not available | Not available |

## Section 13: Disposal Considerations

|                    |   |
|--------------------|---|
| <b>Isobutylene</b> | Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001. |
| <b>Air</b>         | Dispose in accordance with all applicable regulations.  |

## Section 14: Transportation Information

### U.S. DOT 49 CFR 172.101

#### DOT Information For This Mixture

|                           |   |
|---------------------------|---|
| <b>Shipping Name</b>      | Compressed gas, n.o.s. (Air, Isobutylene) |
| <b>UN Number</b>          | UN1956                                    |
| <b>Hazard Class</b>       | 2.2                                       |
| <b>Hazard Information</b> | Non-Flammable Gas                         |

#### Individual Component Information

|                    | Proper Shipping Name  | ID Number | Hazard Class or Division | Packing Group  | Labeling Requirements | Passenger Aircraft or Railcar Quantity Limitations | Cargo Aircraft Only Quantity Limitations | Additional Shipping Description |
|--------------------|---|-----------|--------------------------|----------------|-----------------------|--|--|---------------------------------|
| <b>Isobutylene</b> | ISOBUTYLENE<br>see also<br>PETROLEUM<br>GASES,<br>LIQUEFIED | UN1055    | 2.1                      | Not applicable | 2.1                   | Forbidden  | 150 kg                                   | N/A                             |
| <b>Air</b>         | Air, compressed   | UN1002    | 2.2                      | Not available  | 2.2                   | Not available                                      | Not available                            | Not available                   |

#### Canadian Transportation of Dangerous Goods

|                    | Shipping Name   | UN Number | Class | Packing Group / Risk Group |
|--------------------|-----------------|-----------|-------|----------------------------|
| <b>Isobutylene</b> | Isobutylene     | UN1055    | 2.1   | Not applicable             |
| <b>Air</b>         | Air, compressed | UN1002    | 2.2   | Not available              |

## Section 15: Regulatory Information

### U.S. Regulations

|                    | CERCLA Sections | SARA 355.30    | SARA 355.40    |
|--------------------|-----------------|----------------|----------------|
| <b>Isobutylene</b> | Not regulated.  | Not regulated. | Not regulated. |

|            |                |                |                |
|------------|----------------|----------------|----------------|
| <b>Air</b> | Not regulated. | Not regulated. | Not regulated. |
|------------|----------------|----------------|----------------|

### SARA 370.21

|                    | <b>Acute</b> | <b>Chronic</b> | <b>Fire</b> | <b>Reactive</b> | <b>Sudden Release</b> |
|--------------------|--------------|----------------|-------------|-----------------|-----------------------|
| <b>Isobutylene</b> | Yes          | No             | Yes         | No              | Yes                   |
| <b>Air</b>         | No           | No             | No          | No              | Yes                   |

### SARA 372.65

|                    |                |
|--------------------|----------------|
| <b>Isobutylene</b> | Not regulated. |
| <b>Air</b>         | Not regulated. |

### OSHA Process Safety

|                    |                |
|--------------------|----------------|
| <b>Isobutylene</b> | Not regulated. |
| <b>Air</b>         | Not regulated. |

### State Regulations

|                    | <b>CA Proposition 65</b> |
|--------------------|--------------------------|
| <b>Isobutylene</b> | Not regulated.           |
| <b>Air</b>         | Not regulated.           |

### Canadian Regulations

|                    | <b>WHMIS Classification</b> |
|--------------------|-----------------------------|
| <b>Isobutylene</b> | A,B1                        |
| <b>Air</b>         | A                           |

### National Inventory Status

|                    | <b>US Inventory (TSCA)</b> | <b>TSCA 12b Export Notification</b> | <b>Canada Inventory (DSL/NDSL)</b> |
|--------------------|----------------------------|-------------------------------------|------------------------------------|
| <b>Isobutylene</b> | Listed on inventory.       | Not listed.                         | Listed on inventory.               |
| <b>Air</b>         | Not listed on inventory.   | Not listed.                         | Not determined.                    |

## Section 16: Other Information

|                    | <b>NFPA Rating</b>           |
|--------------------|------------------------------|
| <b>Isobutylene</b> | HEALTH=1 FIRE=4 REACTIVITY=0 |
| <b>Air</b>         | HEALTH=0 FIRE=0 REACTIVITY=0 |

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard