

## Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA  
GHS

Printing date 05.08.2015

Revision: 05.08.2015

### SECTION 1: Identification of the substance/mixture and of the company/ undertaking

- **1.1 Product identifier**
- **Trade name: ISO BUTANE / PROPANE FUEL MIX**
- **Article number:** No other identifiers
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Fuel
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
Sterno  
1880 Compton Ave. No. 101  
Corona, CA 92881  
Phone: 951-682-9600
- **1.4 Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924, +1 (813)248-0585

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Classifications listed are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).



flame

Flam. Gas 1 H220 Extremely flammable gas.



gas cylinder

Press. Gas C H280 Contains gas under pressure; may explode if heated.

- **Additional information:**  
There are no other hazards not otherwise classified that have been identified.  
0 % of the mixture consists of component(s) of unknown toxicity.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The substance is classified and labelled according to the Globally Harmonized System within the United States (GHS).  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02 GHS04

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- **Signal word** Danger
- **Hazard statements**  
H220 Extremely flammable gas.  
H280 Contains gas under pressure; may explode if heated.
- **Precautionary statements**  
P102 Keep out of reach of children.  
P103 Read label before use.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
P381 Eliminate all ignition sources if safe to do so.  
P410+P403 Protect from sunlight. Store in a well-ventilated place.
- **NFPA ratings (scale 0 - 4)**  

  - Health = 0
  - Fire = 4
  - Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**  

  - HEALTH 0 Health = 0
  - FIRE 4 Fire = 4
  - REACTIVITY 0 Reactivity = 0
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-00-0	isobutane	 Flam. Gas 1, H220  Press. Gas C, H280	50-100%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5	propane	 Flam. Gas 1, H220  Press. Gas C, H280	10-25%
CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0	butane	 Flam. Gas 1, H220  Press. Gas C, H280	2,5-10%

- **Additional information:**

For the listed ingredient(s), the identity and exact percentages are being withheld as a trade secret.

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## SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:**  
Supply fresh air; consult doctor in case of complaints.  
Provide oxygen treatment if affected person has difficulty breathing.
- **After skin contact:**  
In cases of frostbite, rinse with plenty of water. Do not remove clothing.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Remove contact lenses if worn.  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Unlikely route of exposure.  
Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**  
Dizziness  
Breathing difficulty
- **Hazards** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
If necessary oxygen respiration treatment.

## SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** None.
- **5.2 Special hazards arising from the substance or mixture**  
Danger of receptacles bursting because of high vapour pressure when heated.  
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information**  
Eliminate all ignition sources if safe to do so.  
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.  
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Keep away from ignition sources.

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Protect from heat.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

- **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.

- **6.3 Methods and material for containment and cleaning up:**

Allow to evaporate.

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

- **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Use only in well ventilated areas.

- **Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Emergency cooling must be available in case of nearby fire.

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

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from oxidising agents.

- **Further information about storage conditions:**

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see section 7.

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

### 75-28-5 isobutane

TLV (USA) Short-term value: 2370 mg/m<sup>3</sup>, 1000 ppm

EV (Canada) Long-term value: 800 ppm

### 74-98-6 propane

PEL (USA) Long-term value: 1800 mg/m<sup>3</sup>, 1000 ppmREL (USA) Long-term value: 1800 mg/m<sup>3</sup>, 1000 ppm

TLV (USA) refer to Appendix F in TLVs and BEIs book

EL (Canada) Long-term value: 1000 ppm

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EV (Canada)	Long-term value: 1,000 ppm
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**106-97-8 butane**

REL (USA)	Long-term value: 1900 mg/m <sup>3</sup> , 800 ppm
TLV (USA)	Short-term value: 2370 mg/m <sup>3</sup> , 1000 ppm
EL (Canada)	Short-term value: 750 ppm Long-term value: 600 ppm
EV (Canada)	Long-term value: 800 ppm

- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.
- **Additional information:** No further relevant information available.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.
- **Respiratory protection:**  
Not required under normal conditions of use.  
Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**  
Not required under normal conditions of use.  
Wear protective gloves to handle contents of damaged or leaking units.
- **Eye protection:**



Safety glasses

- **Body protection:** Not required under normal conditions of use.
- **Limitation and supervision of exposure into the environment**  
No further relevant information available.

## SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
  - **Form:** Compressed gas
  - **Colour:** Clear
  - **Odour:** Characteristic
  - **Odour threshold:** Not determined.
  - **pH-value:** Not determined.
- **Change in condition**
  - **Melting point/Melting range:** Not Determined.
  - **Boiling point/Boiling range:** -44 °C (-47 °F)

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- **Flash point:** -1 °C (30 °F)
- **Flammability (solid, gaseous):** Extremely flammable liquefied gas.
- **Auto/Self-ignition temperature:** 460 °C (860 °F)
- **Decomposition temperature:** Not determined.
- **Self-igniting:** Product is not self-igniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- **Explosion limits:**
  - Lower:** 1,7 Vol %
  - Upper:** 10,9 Vol %
- **Oxidising properties** Non-oxidising.
- **Vapour pressure at 20 °C (68 °F):** 8300 hPa (6226 mm Hg)
- **Density at 20 °C (68 °F):** 0,4 g/cm<sup>3</sup> (3,338 lbs/gal)
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not applicable.
- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic:** Not determined.
  - Kinematic:** Not determined.
- **9.2 Other information** No further relevant information available.

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
Danger of receptacles bursting because of high vapour pressure when heated.
- **10.3 Possibility of hazardous reactions**  
Extremely flammable gas.  
Forms explosive gas mixture with air.  
Reacts with oxidising agents.  
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.
- **10.4 Conditions to avoid**  
Keep ignition sources away - Do not smoke.  
Store away from oxidising agents.
- **10.5 Incompatible materials:** No further relevant information available.

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- **10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

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## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
- **LD/LC50 values relevant for classification:** None.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:** Asphyxiant gas.
- **Acute effects (acute toxicity, irritation and corrosivity):**  
May displace oxygen and cause rapid suffocation.
- **Repeated dose toxicity:** No further relevant information available.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**
- **Germ cell mutagenicity**  
Based on available data, the classification criteria are not met.
- **Carcinogenicity**  
Based on available data, the classification criteria are not met.
- **Reproductive toxicity**  
Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
Based on available data, the classification criteria are not met.
- **STOT-repeated exposure**  
Based on available data, the classification criteria are not met.
- **Aspiration hazard**  
Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Contact waste processors for recycling information.

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The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to local official regulations.


## SECTION 14: Transport information

- **14.1 UN-Number**
- **DOT, ADR, IMDG, IATA** UN2037
- **14.2 UN proper shipping name**
- **DOT** Receptacles, small, containing gas
- **ADR** 2037 RECEPTACLES, SMALL, CONTAINING GAS  
(GAS CARTRIDGES)
- **IMDG, IATA** RECEPTACLES, SMALL, CONTAINING GAS (GAS  
CARTRIDGES)
- **14.3 Transport hazard class(es)**
- **DOT**
- 
- **Class** 2 Gases.
- **Label** 2.1

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- **ADR**
- 
- **Class** 2 5F Gases.
- **Label** 2.1

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- **IMDG, IATA**
- 
- **Class** 2 Gases.
- **Label** 2.1
- **14.4 Packing group**
- **DOT, ADR, IMDG, IATA** Not applicable
- **14.5 Environmental hazards:** Not applicable.
- **14.6 Special precautions for user** Warning: Gases.
- **Danger code (Kemler):** 21
- **EMS Number:** F-D,S-U

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- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.
- **Transport/Additional information:**
- **ADR**
- **Excepted quantities (EQ)** Code: E0  
Not permitted as Excepted Quantity
- **Transport category** 2
- **Tunnel restriction code** D
- **IMDG**
- **Excepted quantities (EQ)** Code: E0  
Not permitted as Excepted Quantity
- **DOT** SP 12562
- **UN "Model Regulation":** UN2037, RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES), 2.1

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65 (California):**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **Carcinogenic Categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

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<b>· TLV (Threshold Limit Value established by ACGIH)</b>
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None of the ingredients are listed.
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<b>· NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
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None of the ingredients are listed.
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<b>· Canada</b>
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<b>· Canadian Domestic Substances List (DSL)</b>
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All ingredients are listed.
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<b>· Canadian Ingredient Disclosure list (limit 0.1%)</b>
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None of the ingredients are listed.
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<b>· Canadian Ingredient Disclosure list (limit 1%)</b>
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106-97-8   butane
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<b>· Directive 2012/18/EU</b>
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<b>· Named dangerous substances - ANNEX I</b>
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None of the ingredients are listed.
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<b>· Other regulations, limitations and prohibitive regulations</b>
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This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.
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<b>· Substances of very high concern (SVHC) according to REACH, Article 57</b>
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None of the ingredients are listed.
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<b>· 15.2 Chemical safety assessment:</b> A Chemical Safety Assessment has not been carried out.
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<b>SECTION 16: Other information</b>
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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

<b>· Relevant phrases</b>
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H220 Extremely flammable gas.
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H280 Contains gas under pressure; may explode if heated.
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<b>· Abbreviations and acronyms:</b>
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ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
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IMDG: International Maritime Code for Dangerous Goods
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DOT: US Department of Transportation
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IATA: International Air Transport Association
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GHS: Globally Harmonised System of Classification and Labelling of Chemicals
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ACGIH: American Conference of Governmental Industrial Hygienists
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EINECS: European Inventory of Existing Commercial Chemical Substances
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ELINCS: European List of Notified Chemical Substances
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CAS: Chemical Abstracts Service (division of the American Chemical Society)
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DNEL: Derived No-Effect Level (REACH)
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PNEC: Predicted No-Effect Concentration (REACH)
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LC50: Lethal concentration, 50 percent
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LD50: Lethal dose, 50 percent
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PBT: Persistent, Bioaccumulative and Toxic
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SVHC: Substances of Very High Concern
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vPvB: very Persistent and very Bioaccumulative  
Flam. Gas 1: Flammable gases, Hazard Category 1  
Press. Gas C: Gases under pressure: Compressed gas

**Sources**

Website, European Chemicals Agency ([http://http://echa.europa.eu/](http://echa.europa.eu/))  
Website, US EPA Substance Registry Services ([http://http://ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do))  
Website, Chemical Abstracts Registry, American Chemical Society (<https://www.cas.org>)  
Patty's Industrial Hygiene, 6th ed. , Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6  
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.  
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