Last Updated February 4, 2011

# 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION: FasFil Butane

PRODUCT DESCRIPTION: Butane Gas in 10.5 oz container

MANUFACTURERS NAME AND ADDRESS:

TAE YANG IND.CO.,LTD.

#485-5 UPSEONG-DONG, CHEON AN-CITY

CHUNGNAM, KOREA

82-41-621-9810 (Emergency Phone)

**DISTRIBUTORS NAME AND ADDRESS:** 

Kretek International

5449 Endeavor Court Moorpark, CA 93021 USA

(800) 358-8100 (For product information) (800) 358-8100 (For Emergencies)

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

CONTAINING: HAZARDOUS AND/OR REGULATED COMPONENTS

Chemical Name	Amount	CAS	<u>Hazardous</u>	OSHA PEL	NIOSH TWA
	,	Number		(ppm)	<u>(ppm)</u>
Butane	44%	106-87-8	YES	Not Listed	800 ppm
Iso-Butane	28%	75-28-5	YES	Not Listed	Not Listed
Propane	27%	75-98-6	YES	Not Listed	Not Listed

California Prop 65: This product does not contain an ingredient(s), above the safe harbor limits, which are known to the state of California to cause cancer, birth defects, or other reproductive harm.

**HAZARDS DISCLOSURE:** This product does contain known hazardous materials in reportable levels as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200 except as listed above. As defined under Sara 311 and 312, this product contains known hazardous materials.

## 3. HAZARDS IDENTIFICATION

#### **EMERGENCY OVERVIEW**

DANGER! CONTAINS FLAMMABLE LIQUID. KEEP AWAY FROM HEAT AND IGNITION SOURCES.

HMIS/NFPA Rating: See Section 16

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: Skin. Eye. Inhalation. Ingestion:

**ACUTE HEALTH HAZARDS:** Extreme flammability; vapor clouds easily ignited; simple asphyxiation; frostbite to skin and eyes from contact with liquid gases.

POTENTIAL CHRONIC HEALTH EFFECTS: No known chronic hazards.

**AGGRAVATION OF PRE-EXISTING CONDITIONS:** Persons with pre-existing respiratory conditions may be more susceptible.

## 4. FIRST AID MEASURES

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- **INHALATION FIRST AID:** Remove victim to fresh air and provide oxygen if breathing is difficult. If not breathing, give artificial respiration, preferably mouth to mouth. GET MEDICAL ATTENTION IMMEDIATELY.
- SKIN CONTACT FIRST AID: Remove affected person from source of contamination. Promptly stop exposure and get medical attention if frostbite has occurred. Promptly flush contaminated skin with soap or mild detergent and water. Remove contaminated clothing and shoes. GET MEDICAL ATTENTION IF IRRITATION OCCURRS. Wash clothing before reuse.
- **EYE CONTACT FIRST AID:** If contact with eyes, immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids open. GET MEDICAL ATTENTION IMMEDIATELY. Burns should be flushed with water to normalize temperature. Cover eyes with sterile dressing. Do not apply ointments or powder.
- **INGESTION FIRST AID:** If swallowed, wash out mouth with water provided the person is conscious. Do not induce vomiting. Never give anything by mouth to an unconscious person. GET MEDICAL ATTENTION IMMEDIATELY.

#### 5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: Flammable Liquid AUTO IGNITION TEMPERATURE: Not Established FLASH POINT: Closed Cup: - 23°C.(Closed Cup)

FLAMMABLE LIMITS IN AIR, % by Volume: lel: 1.8% uel: 8.5%

**EXTINGUISHING MEDIA:** Stop flow of material to fire. Fire can be extinguished using foam, dry chemicals and sand dolomite etc.

**FIRE & EXPLOSION HAZARDS:** Extremely flammable. May explode in a fire. May travel considerable distance to source of ignition and flashback.

#### 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. Do not approach containers suspected to be hot.

## **6. ACCIDENTAL RELEASE MEASURES**

**SPILL CLEAN-UP PROCEDURES:** Evacuate unprotected personnel from the area. Ventilate area of leak to disperse gas to the atmosphere. Extinguish all ignition sources. Never exceed any occupational exposure limits.

Always dispose of waste materials in accordance with all State, Federal and Local Regulations.

#### 7. HANDLING AND STORAGE

- **RECOMMENDED STORAGE CONDITIONS:** Protect against physical damage, Store in a cool, dry well-ventilated location, out of direct sunlight. Do not expose to heat or store at temperatures above 110°F. Separate from oxidizers. Avoid any possible ignition sources. May attack some plastics, rubber and coatings.
- **HANDLING (PERSONNEL):** Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink or smoke in work area. Wash thoroughly after handling.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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AIRBORNE EXPOSURE LIMITS: See Section 2 above.

Butane CAS# 106-87-8:

-OSHA Permissible Exposure Limit (PEL): Not Listed

-NIOSH Threshold Limit Value (TWA): 800 ppm

**VENTILATION SYSTEM:** A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

PERSONAL RESPIRATORS (NIOSH APPROVED): If the exposure limit is exceeded and engineering controls are not feasible, wear a supplied air, full-facepiece respirator, air lined hood, or full-facepiece self-contained breathing apparatus. Breathing air quality must meet the requirements of the OSHA respiratory protection standard (29CFR1910.134). Where respirators are required, you must have a written program covering the basic requirements in the OSHA respirator standard. These include training, fit testing, medical approval, cleaning, maintenance, cartridge change schedules, etc. See 29CFR1910.134 for details.

**RESPIRATORY PROTECTION:** For unknown vapor concentrations use a positive-pressure, pressure-demand, self-contained breathing apparatus (SCBA). For known vapor concentrations above the occupational exposure guidelines (see below), use a NIOSH-approved organic vapor respirator if adequate protection is provided. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).

SKIN PROTECTION: Wear impervious gloves made of rubber, as appropriate, to prevent skin contact.

**EYE PROTECTION:** Under normal use should not be required. Always drect nozzle away from the face. Maintain eye wash fountain and quick-drench facilities in work area.

GOOD HYGIENE CONDITIONS: Wash with soap and water before meals and at the end of each work shift. Good manufacturing practices require amounts of any chemical be removed from the skin as soon as practical, especially before eating or smoking.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Gas

**COLOR:** Colorless

**ODOR:** Characteristic odor

**BOILING POINT: 1.33°C** 

SOLUBILITY IN WATER: Insoluble in water.

SPECIFIC GRAVITY: 0.582 @ 20 °C (Water =1)

MELTING POINT: -139.28°C

EVAPORATION RATE (BuAc=1): No Data

**AUTO IGNITION TEMPERATURE:** No Data

FLASH POINT: -23°C Closed Cup

pH: NA (1% soln/water)

VAPOR PRESSURE: 2.1 (@20°C)

VAPOR DENSITY: 2. (air = 1)

## 10. STABILITY AND REACTIVITY

STABILITY: Stable under ordinary conditions of use and storage.

**CONDITIONS TO AVOID:** Heat, sparks and flames

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur under normal conditions.

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**INCOMPATIBILITY WITH OTHER MATERIALS:** Strong oxidizing agents.

HAZARDOUS DECOMPOSITION: Toxic gases/vapors/fumes of carbon monoxide and carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION

## **Toxicological Data:**

Toxic inhalation concentration: LC50: 680 ppm/2hr

Carcinogenic effects:

IARC Carcinogen List - Not Listed NTP Carcinogen List - Not Listed ACGIH Carcinogenic List - Not Listed

Mutagenic effects: Not available. Teratogenic effects: Not available.

Cancer Lists

---NTP Carcinogen---

Ingredient

Known

Anticipated

IARC Category

All Ingredients

No

No

No

## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL FATE:** No Data Available

Oxygen Demand Data: No data available

#### **ENVIRONMENTAL TOXICITY:**

Acute Aquatic Effects Data: No data available

## 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Vent to atmosphere. Always dispose of material in accordance with federal, state and local requirements.

EMPTY CONTAINERS: Dispose of empty containers without puncturing. DO NOT INCINERATE

## 14. TRANSPORTATION INFORMATION

Domestic (Land, D.O.T.), International (Water, I.M.O.), International (Air, I.C.A.O.)

CLASS:

2.1 Flammable Gas

PRODUCT LABEL:

FasFil Butane

UN NUMBER:

1057

PACKING GROUP:

Not Designated Flammable Gas

D.O.T. SHIPPING NAME: PRODUCT RQ (kg):

ERG Guide Number:

NA

115

SUPPLEMENTAL HAZARD: None

## 15. REGULATORY INFORMATION

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#### FEDERAL REGULATORY STATUS

Chemical Inventory Status - Part 1

Ingredient TSCA EC Japan Australia
Butane YES YES YES YES

Chemical Inventory Status - Part 2

Ingredient Korea DSL NDSL Phil.
Butane YES YES No YES

Federal, State & International Regulations - Part 1

Ingredient RQ TPQ List Chemical Catalog

Butane No No No No No

CANADA

Federal, State & International Regulations - Part 2

 CERCLA
 -RCRA -TSCA 

 Ingredient
 261.33
 8(d)

 Butane
 No
 No
 No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No

Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: TQ of 10,000 lbs. **SARA 311/312**: Acute: Yes Chronic: No Fire: Yes Pressure: Yes

Reactivity: No (Pure / Liquid)

STATE REGULATIONS:

None Found

PROP 65 - WARNING:

THIS PRODUCT DOES NOT CONTAIN A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

RCRA 40 CFR: None.

Australian Hazchem Code: 2WE 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. WHIMS CLASSIFICATION: A – Compressed Gas; B1- Flammable Gas





This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA). This material or all of its components are listed on the Canadian Domestic Substances List (DSL). This material or all of its components are listed (or considered as having been notified) on the European Inventory of Existing Chemical Substances (EINECS). Other inventory lists:, Korea (TCCL), Australia (AICS), China (Draft), PICCS (Philippines-RA6969), Japan (ENCS METI/MOL).

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NFPA Ratings: Health: 1 Flammability: 4 Reactivity: 0

Label Requirements:

WARNING! KEEP AWAY FROM HEAT AND IGNITION SOURCES. HARMFUL IF SWALLOWED. AVOID BREATHING VAPORS,USE WITH ADEQATE VENTILATION. AVOID CONTACT WITH EYS, SKIN AND CLOTHES. WASH THOROUGHLY AFTER HANDLING. KEEP CONTAINER CLOSED.

Hazardous Material Information System (HMIS):	Health	1
	Flammability	4
	Reactivity	0
	Personal Protection	В

Protective Equipment: VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER.

National Fire Protection Association (NFPA) 1-Health, 4-Flammablity, 0-Reactivity

NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

Prepared By: Paul Eigbrett (MSDS Authoring PLUS)

Approval Date: February 4, 2011

Part Number:

Supersedes Date: New

ADDITIONAL INFORMATION:

The data in this Material Safety Data Sheet relates only to the specific material designated herein. It does not relate to use in combination with any other material or in any process. This Material Safety Data Sheet (MSDS) has been reviewed to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-2004)

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that

**END OF MSDS**