MATERIAL SAFETY DATA SHEET

Date Issued: 12/02/2008
MSDS No: LS1006

Ronson® Butane Fuel Refill

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Ronson® Butane Fuel Refill
PRODUCT DESCRIPTION: Butane Refill
PRODUCT CODE: 99142
CHEMICAL FAMILY: Alkane
GENERIC NAME: Butane

MANUFACTURER

Ortho Technology, Inc.
17401 Commerce Park Boulevard
Tampa FL 33647
Product Stewardship: 1-800-999-3161

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC : 1-800-424-9300

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear odorless gas in in aerosol container

POTENTIAL HEALTH EFFECTS

SKIN ABSORPTION: No absorption through the skin.

INGESTION: Product does not lend itself to ingestion.

INHALATION: Not considered carcinogenic. Variable simple asphixyant / anesthetic.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

INHALATION: Non toxic, but may displace oxygen in air. No apparent ill effects in breathing concentration of 5% for 2 hours. Causes drowsiness in a short time in concentrations of 1%.

ACUTE TOXICITY: Nausea, vomiting, coughing and pulmonary irritation.

CHRONIC EFFECTS: Dizziness, weakness, peripheral numbness and nervousness.

MEDICAL CONDITIONS AGGRAVATED: Respiratory related chronic illnesses (i.e. asthma, etc.)

ROUTES OF ENTRY: Inhalation only

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Isobutane	~ 100	75-28-5

4. FIRST AID MEASURES

SKIN: Contact with liquid can freeze tissue, similar to thermal burn. May cause frostbite.

NOTES TO PHYSICIAN: Simple Asphixyant / Frost Bite.

5. FIRE FIGHTING MEASURES

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FLASHPOINT AND METHOD: (-120°F) Closed Cup

FLAMMABLE LIMITS: 1.8 to 9.5
Notes: In Air Volume %

AUTOIGNITION TEMPERATURE: Not Available

FLAMMABLE CLASS: Flammable gas Hazard class 2.1

EXTINGUISHING MEDIA: Carbon Dioxide, dry chemcial, mist or water spray.

EXPLOSION HAZARDS: Moderate

FIRE FIGHTING PROCEDURES: Confine fire to immediate area; disperse liquid or vapor if spill occurs; shut off source of leak if possible.

FIRE EXPLOSION: Fire hazard - dangerous

HAZARDOUS DECOMPOSITION PRODUCTS: None except asphyxiation by displacement.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Remove all ignition sources. If applicable stop leak. Disperse vapors with water spray. No smoking, flames or flares in hazard area. Isolate hazard area and deny entry of non qualified emergency response personnel.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Product is highly flammable and forms explosive mixtures with air, oxygen and all oxidizing agents. Avoid high temperatures that may elevate component pressure above container rating. Use and store this product with adequate ventilation; Use non sparking tools; electrically ground all equipment and lines; use explosion proof equipment (Class I group D, Division 1 & 2)

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m³	ppm	mg/m³
Isobutane	TWA	N/A	N/A	800 ppm	N/A

ENGINEERING CONTROLS: Ventilation: Local exhaust to meet exposure limits Class I Group D, Division 1 & 2 (NEC)

PERSONAL PROTECTIVE EQUIPMENT

SKIN: Gloves: Impermeable type - nitrile rubber.

RESPIRATORY: None

PROTECTIVE CLOTHING: To prevent repeated or prolonged skin contact, wear impervious clothing.

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WORK HYGIENIC PRACTICES: Availability of eyewash and safety shower station recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Clear odorless gas

VAPOR PRESSURE: 31 psig @ 70F

VAPOR DENSITY: 2.0068 (Air =1)

BOILING POINT: @ 1 ATM 10.90F

MELTING POINT: NA = Not Applicable

POUR POINT: NA = Not Applicable

FLASHPOINT AND METHOD: (-120°F) Closed Cup

SOLUBILITY IN WATER: Slight

EVAPORATION RATE: (Butyl Acetate = 1) NA = Not Applicable

SPECIFIC GRAVITY: (H2O = 1) 0.5624

(VOC): 100.000 %

10. STABILITY AND REACTIVITY

STABILITY: Stable.

POLYMERIZATION: Will not occur

HAZARDOUS DECOMPOSITION PRODUCTS: None except asphyxiation by displacement.

INCOMPATIBLE MATERIALS: Reacts vigorously with oxidizing materials

11. TOXICOLOGICAL INFORMATION

ACUTE

INHALATION LC_{50}: 52 Vol % in Air

NOTES: Acute Inhalation of Isobutane:
LC_0 32 Vol % in Air
LC_{100} 65 Vol % in Air
Animal : Laboratory Rats

TERATOGENIC EFFECTS: Teratogenic Studies
Modified Ames Test
Isobutane not teratogenic under test conditions, six-hour exposure, followed by incubation for 42 additional Hours before scoring.

GENERAL COMMENTS: Caradic Arrhythmia due to Inhalation of Isobutane:
Concentration Threshold 10 + 20 Vol %
Animal : monkey, mice, dogs

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Concentration to produce cardiac arrest - Not determined (cardiac arrest will occur with total exposure and oxygen deprivation.)

COMMENTS: Non toxic, but may displace oxygen in air.

12. ECOLOGICAL INFORMATION

COMMENTS: Not Available

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose in accordance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Butane

PRIMARY HAZARD CLASS/DIVISION: Flammable Gas 2.1

UN/NA NUMBER: UN 1011

PLACARDS: Flammable Gas/1011

LABEL: FLAMMABLE GAS

OTHER SHIPPING INFORMATION: Shipping Containers: Cartons

VESSEL (IMO/IMDG)

SHIPPING NAME: Butane

UN/NA NUMBER: UN 1011

PRIMARY HAZARD CLASS/DIVISION: Flammable Gas 2.1

PLACARDS: Flammable Gas / 1011

LABEL: DOT / IMO Label

15. REGULATORY INFORMATION

16. OTHER INFORMATION

REASON FOR ISSUE: New MSDS Format

APPROVED BY: J. Hutchins **TITLE:** QA/RA Director

PREPARED BY: T. Swan

INFORMATION CONTACT: 1-800-999-3161

REVISION SUMMARY: New MSDS

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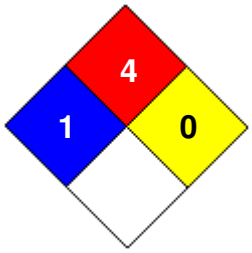
NFPA CODES



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