

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : SCW103 Cyanowand Butane Fuel  
Product code : SCW103, SCW1035

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fuel

#### 1.3. Supplier

SIRCHIE  
100 Hunter Place  
Youngsville, NC 27596 - USA  
T 919-554-2244; 800-356-7311 - F 919-554-2266; 800-899-8181  
<http://www.sirchie.com>

#### 1.4. Emergency telephone number

Emergency number : 1.800.424.9300 (USA) +1-703-527-3887 (INTL)  
CHEMTREC: 1.800.424.9300

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Flammable gases Category 1	H220 Extremely flammable gas
Skin corrosion/irritation Category 2	H315 Causes skin irritation
Serious eye damage/eye irritation Category 1	H318 Causes serious eye damage
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336 May cause drowsiness or dizziness
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335 May cause respiratory irritation

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) : H220 - Extremely flammable gas  
H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H335 - May cause respiratory irritation  
H336 - May cause drowsiness or dizziness

Precautionary statements (GHS US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 - If on skin: Wash with plenty of water.  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a poison center or doctor.  
P312 - Call a poison center or doctor if you feel unwell.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
P381 - Eliminate all ignition sources if safe to do so.

# SCW103 Cyanowand Butane Fuel

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P403 - Store in a well-ventilated place.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P405 - Store locked up.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
isobutanol	(CAS-No.) 78-83-1	96	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336 STOT SE 3, H335
butane, liquefied, under pressure	(CAS-No.) 106-97-8	2.4	Flam. Gas 1, H220 Press. Gas (Comp.), H280
propane	(CAS-No.) 74-98-6	1.6	Flam. Gas 1, H220 Press. Gas (Comp.), H280

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).  
First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.  
First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.  
First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.  
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.  
Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.  
Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Reactivity in case of fire : On burning: release of toxic and corrosive gases/vapours (sulphur oxides, carbon monoxide - carbon dioxide).

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

# SCW103 Cyanowand Butane Fuel

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Store away from other materials.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

<b>SCW103 Cyanowand Butane Fuel</b>	
No additional information available	
<b>butane, liquefied, under pressure (106-97-8)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH STEL (ppm)	1000 ppm
<b>isobutanol (78-83-1)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (ppm)	50 ppm
<b>propane (74-98-6)</b>	
No additional information available	

#### 8.2. Appropriate engineering controls

#### 8.3. Individual protection measures/Personal protective equipment

##### Personal protective equipment:

Gas mask. Gloves. Safety glasses. Avoid all unnecessary exposure.

##### Hand protection:

Wear protective gloves.

##### Eye protection:

Chemical goggles or safety glasses

##### Respiratory protection:

# SCW103 Cyanowand Butane Fuel

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Wear appropriate mask

### Personal protective equipment symbol(s):



### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Clear, colorless gas.
Color	: clear Colorless
Odor	: strong Unpleasant odour
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

At very high temperature: risk of explosion on exposure to temperature rise. On burning: release of toxic and corrosive gases/vapours (sulphur oxides, carbon monoxide - carbon dioxide).

### 10.2. Chemical stability

Stable under normal conditions. Heating may cause a fire. Extremely flammable liquid and vapor. Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Heat. High temperature. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Open flame. Sparks. Direct sunlight. Extremely high or low temperatures.

# SCW103 Cyanowand Butane Fuel

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

<b>isobutanol (78-83-1)</b>	
LD50 oral rat	> 2830 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 18.18 mg/l air (6 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))

<b>propane (74-98-6)</b>	
LC50 Inhalation - Rat [ppm]	> 800000 ppm (15 minutes, Rat, Male / female, Experimental value, Inhalation (gases))

Skin corrosion/irritation : Causes skin irritation.  
Serious eye damage/irritation : Causes serious eye damage.  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : May cause drowsiness or dizziness. May cause respiratory irritation.

<b>isobutanol (78-83-1)</b>	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified  
Viscosity, kinematic : No data available

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>butane, liquefied, under pressure (106-97-8)</b>	
LC50 fish 1	24.11 mg/l (ECOSAR, 96 h, Pisces, Fresh water, QSAR)

<b>isobutanol (78-83-1)</b>	
LC50 fish 1	1430 mg/l (96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 Daphnia 1	1100 mg/l (ASTM, 48 h, Daphnia pulex, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 (algae)	1799 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

<b>propane (74-98-6)</b>	
LC50 fish 1	49.9 mg/l (96 h, Pisces, Fresh water, QSAR, Estimated value)

# SCW103 Cyanowand Butane Fuel

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 12.2. Persistence and degradability

SCW103 Cyanowand Butane Fuel	
Persistence and degradability	Not established.
butane, liquefied, under pressure (106-97-8)	
Persistence and degradability	Readily biodegradable in water.
isobutanol (78-83-1)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
propane (74-98-6)	
Persistence and degradability	Readily biodegradable in water.

### 12.3. Bioaccumulative potential

SCW103 Cyanowand Butane Fuel	
Bioaccumulative potential	Not established.
butane, liquefied, under pressure (106-97-8)	
Partition coefficient n-octanol/water (Log Pow)	2.8 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
isobutanol (78-83-1)	
Partition coefficient n-octanol/water (Log Pow)	1 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
propane (74-98-6)	
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

### 12.4. Mobility in soil

butane, liquefied, under pressure (106-97-8)	
Surface tension	No data available in the literature
Ecology - soil	Not applicable (gas).
isobutanol (78-83-1)	
Surface tension	69.7 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Partition coefficient n-octanol/water (Log Koc)	0.47 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.
propane (74-98-6)	
Surface tension	No data available in the literature
Ecology - soil	Not applicable (gas).

### 12.5. Other adverse effects

Effect on the global warming : No known effects from this product.

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN2037 Receptacles, small, containing gas (FLAMMABLE GAS), 2.1, II  
UN-No.(DOT) : UN2037

# SCW103 Cyanowand Butane Fuel

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Proper Shipping Name (DOT)	: Receptacles, small, containing gas FLAMMABLE GAS
Class (DOT)	: 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115
Packing group (DOT)	: II - Medium Danger
Hazard labels (DOT)	: 2.1 - Flammable gas



Other information : No supplementary information available.

### Transportation of Dangerous Goods

#### Transport by sea

#### Air transport

Transport document description (IATA)	: UN UN2037 Receptacles, small, containing gas, 2.1
UN-No. (IATA)	: UN2037
Proper Shipping Name (IATA)	: Receptacles, small, containing gas
Class (IATA)	: 2.1 - Gases : Flammable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### SCW103 Cyanowand Butane Fuel

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

### 15.3. US State regulations

No additional information available

## SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Training advice	: Normal use of this product shall imply use in accordance with the instructions on the packaging. Keep in tightly closed container. Keep cool and dry. Avoid all ignition sources - heat, open flame, sparks. Avoid incompatible materials. Avoid dust creation and accumulation. Avoid inhalation and ingestion. Avoid contact with eyes. Wash thoroughly after handling.
Other information	: This Safety Data Sheet has been established in accordance with the applicable European Union legislation.

# SCW103 Cyanowand Butane Fuel

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

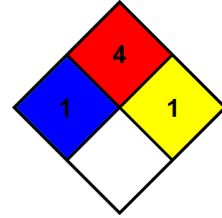
### Full text of H-phrases:

H220	Extremely flammable gas
H226	Flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H315	Causes skin irritation
H318	Causes serious eye damage
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 4 - Materials that rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and burn readily.

NFPA reactivity : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



### Hazard Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 4 Severe Hazard - Flammable gases, or very volatile flammable liquids with flash points below 73 F, and boiling points below 100 F. Materials may ignite spontaneously with air. (Class IA)

Physical : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Personal protection : G  
G - Safety glasses, Gloves, Vapor respirator

### SDS US (GHS HazCom 2012)

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.*