



## Material Safety Data Sheet

# PRO-Flow-102-N

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

### 1. Product and Company Identification

<b>Material name</b>	<b>PRO-Flow-102-N</b>
<b>Version #</b>	07
<b>Revision date</b>	May-11-2012
<b>CAS #</b>	Mixture
<b>Product use</b>	Surfactant
<b>Manufacturer information</b>	Clearwater International LLC. 4420 Flores Rd Elmendorf, TX 78112 United States Chemtrec 1-800-424-9300 Chemtrec INTL +1-703-527-3887
<b>Supplier information</b>	Producers Service Corp. 109 South Graham St. Zanesville, OH 43701 US
<b>Supplier emergency telephone number(s)</b>	24hr customer Service 740-454-6253

### 2. Hazards Identification

<b>Emergency overview</b>	WARNING  Flammable liquid and vapor. Will be easily ignited by heat, spark or flames. Containers may explode when heated. Irritating to eyes. May cause sensitization by skin contact. Vapors may cause drowsiness and dizziness. Prolonged exposure may cause chronic effects. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>OSHA regulatory status</b>	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
<b>Potential health effects</b>	
<b>Routes of exposure</b>	Eye contact. Skin contact. Inhalation. Ingestion.
<b>Eyes</b>	Causes eye irritation. Risk of serious damage to eyes. Avoid contact with eyes.
<b>Skin</b>	May cause skin irritation. May cause sensitization by skin contact. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash). Avoid contact with the skin.
<b>Inhalation</b>	May cause irritation of respiratory tract. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination. Do not breathe dust/fume/gas/mist/vapors/spray.
<b>Ingestion</b>	May cause dizziness, incoordination, headache, nausea, and vomiting. May be irritating to mouth, throat, and stomach. Do not ingest.
<b>Target organs</b>	Central nervous system. Eyes. Skin. Kidney. Liver.

**Potential environmental effects**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**3. Composition / Information on Ingredients**

Components	CAS #	Percent
Isopropyl alcohol	67-63-0	40 - 60
Alcohol, C6-C12, Ethoxylated	68439-45-2	20 - 40
N-dodecyl-2-pyrrolidone	2687-96-9	1 - 5

**4. First Aid Measures****First aid procedures****Eye contact**

Immediately flush eyes with plenty of water for at least 15 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Get medical attention immediately.

**Skin contact**

Immediately flush skin with plenty of water. Remove and isolate contaminated clothing and shoes. Get medical attention if irritation develops or persists. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.

**Inhalation**

Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately.

**Ingestion**

Have victim rinse mouth thoroughly with water. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention immediately.

**Notes to physician**

In case of shortness of breath, give oxygen. Keep victim warm.

**General advice**

Take off contaminated clothing and shoes immediately. In case of shortness of breath, give oxygen. Keep victim warm. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**5. Fire Fighting Measures****Flammable properties**

Flammable by OSHA criteria. Containers may explode when heated.

**Extinguishing media****Suitable extinguishing media**

Water. Alcohol foam. Dry chemical. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media**

Do not use a solid water stream as it may scatter and spread fire.

**Protection of firefighters****Specific hazards arising from the chemical**

Fire may produce irritating, corrosive and/or toxic gases.

**Protective equipment and precautions for firefighters**

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

**Fire fighting equipment/instructions**

In the event of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Move containers from fire area if you can do it without risk. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Use water spray to cool unopened containers. Cool containers with flooding quantities of water until well after fire is out.

**Specific methods**

In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers.

**6. Accidental Release Measures****Personal precautions**

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ventilate closed spaces before entering. Keep out of low areas.

**Environmental precautions**

Possible need to alert the neighbourhood. Do not contaminate water.

**Methods for containment**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.

**Methods for cleaning up**

Clean up in accordance with all applicable regulations. Should not be released into the environment.

Large Spills: Dike far ahead of liquid spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. After removal flush contaminated area thoroughly with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly.

Never return spills in original containers for re-use.

**Other information**

Clean up in accordance with all applicable regulations.

**7. Handling and Storage****Handling**

Do not handle or store near an open flame, heat or other sources of ignition. All equipment used when handling the product must be grounded. Use only with adequate ventilation. Wash thoroughly after handling. Avoid prolonged exposure. Avoid release to the environment.

**Storage**

Keep away from heat and sources of ignition (spark or flame). The pressure in sealed containers can increase under the influence of heat. Keep containers tightly closed in a cool, well-ventilated place. Store in a closed container away from incompatible materials. Use appropriate container to avoid environmental contamination. Use care in handling/storage. Store in accordance with local/regional/national/international regulation.

**8. Exposure Controls / Personal Protection****Occupational exposure limits****US. ACGIH Threshold Limit Values****Components****Type****Value**

Isopropyl alcohol (67-63-0)

STEL

400 ppm

TWA

200 ppm

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Isopropyl alcohol (67-63-0)	PEL	980 mg/m <sup>3</sup> 400 ppm

**Engineering controls** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Personal protective equipment**

**Eye / face protection** Wear safety glasses with side shields. Wear chemical goggles.

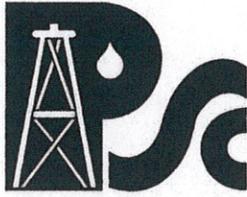
**Skin protection** Protective gloves. Wear suitable protective clothing. Closed-toe shoes recommended.

**Respiratory protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**General hygiene considerations** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

**9. Physical & Chemical Properties**

<b>Appearance</b>	Slightly hazy.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Light yellow - Water White.
<b>Odor</b>	Alcoholic.
<b>Odor threshold</b>	Not available.
<b>pH</b>	5.5 - 8.5
<b>Vapor pressure</b>	28.13 hPa estimated
<b>Vapor density</b>	Not available.
<b>Boiling point</b>	181 °F (83 °C) estimated
<b>Melting point/Freezing point</b>	-127.3 °F (-88.5 °C) estimated
<b>Solubility (water)</b>	Complete.
<b>Specific gravity</b>	0.91 - 0.94
<b>Relative density</b>	Not available.
<b>Flash point</b>	70 °F (21.1 °C)
<b>Flammability limits in air, upper, % by volume</b>	12 % estimated
<b>Flammability limits in air, lower, % by volume</b>	2.5 % estimated
<b>Auto-ignition temperature</b>	750.2 °F (399 °C) estimated
<b>VOC</b>	42 % estimated
<b>Percent volatile</b>	77 % estimated
<b>Other data</b>	
<b>Density</b>	7.58 - 7.83 lb/gal
<b>Flammability class</b>	Flammable IB estimated



Flash point class

Flammable IB

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Stable at normal conditions.
<b>Conditions to avoid</b>	Heat, flames and sparks.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Carbon oxides. Nitrogen oxides (NO <sub>x</sub> ).
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

### Toxicological data

#### Components

#### Test Results

Isopropyl alcohol (67-63-0)

Acute Dermal LD50 Rabbit: 12870 mg/kg  
Acute Dermal LD50 Rabbit: 12800 mg/kg  
Acute Dermal LD50 Rat: 12870 mg/kg  
Acute Inhalation LC50 Rat: 72.6 mg/l/4h  
Acute Oral LD50 Dog: 4797 mg/kg  
Acute Oral LD50 Mouse: 3600 mg/kg  
Acute Oral LD50 Mouse: 4.5 g/kg  
Acute Oral LD50 Rabbit: 6410 mg/kg  
Acute Oral LD50 Rabbit: 5.03 g/kg  
Acute Oral LD50 Rat: 4396 mg/kg  
Acute Oral LD50 Rat: 4.7 g/kg  
Acute Other LD50 Mouse: 1509 mg/kg  
Acute Other LD50 Rat: 1099 mg/kg

#### Sensitization

May cause sensitization by skin contact.

#### Local effects

Irritating to eyes. May cause sensitization by skin contact.

#### Chronic effects

Hazardous by OSHA criteria. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged skin contact may defat the skin and produce dermatitis.

#### Carcinogenicity

Not expected to be hazardous by OSHA criteria.

#### ACGIH Carcinogens

Isopropyl alcohol (CAS 67-63-0)

A4 Not classifiable as a human carcinogen.

#### Neurological effects

Hazardous by OSHA criteria.

## 12. Ecological Information

### Ecotoxicological data

#### Components

#### Test Results

Isopropyl alcohol (67-63-0)

EC50 Daphnia: 13299 mg/L 48 Hours  
IC50 Algae: 1000.0001 mg/L 72 Hours  
LC50 Bluegill (Lepomis macrochirus): > 1400 mg/l 96 hours  
LC50 Fish: 9640 mg/L 96 Hours



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<b>Aquatic toxicity</b>	Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
<b>Persistence and degradability</b>	Not available.

### 13. Disposal Considerations

<b>Waste codes</b>	D001: Waste Flammable material with a flash point <140 F
<b>Disposal instructions</b>	Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations.

### 14. Transport Information

#### Department of Transportation (DOT) Requirements

**Basic shipping requirements:**

<b>UN number</b>	UN1993
<b>Proper shipping name</b>	Flammable liquids, n.o.s. (Isopropyl alcohol)
<b>Hazard class</b>	3
<b>Packing group</b>	II

**Additional information:**

<b>Special provisions</b>	IB2, T7, TP1, TP8, TP28
<b>Packaging exceptions</b>	150
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242
<b>ERG number</b>	128

**Notes** DOT: This product contains Isopropyl alcohol, Reportable Quantity (RQ) = 5000 pounds

#### TDG

**Basic shipping requirements:**

<b>Proper shipping name</b>	FLAMMABLE LIQUID, N.O.S. (Isopropyl alcohol)
<b>Hazard class</b>	3
<b>UN number</b>	UN1993
<b>Packing group</b>	II

**Additional information:**

<b>Special provisions</b>	16
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#### IATA

**Basic shipping requirements:**

<b>Proper shipping name</b>	Flammable liquid, n.o.s. (Isopropyl alcohol)
<b>Hazard class</b>	3
<b>UN number</b>	1993
<b>Packing group</b>	II

**Additional information:**

<b>ERG code</b>	3H
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#### IMDG

**Basic shipping requirements:**

<b>Proper shipping name</b>	FLAMMABLE LIQUID, N.O.S. (Isopropyl alcohol)
<b>Hazard class</b>	3
<b>UN number</b>	1993
<b>Packing group</b>	II

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EmS No.

F-E, S-E\*



DOT



TDG



IATA



IMDG

## 15. Regulatory Information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

### Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2))

Not regulated

### DEA Essential Chemical Code Number

Not regulated

### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated

### DEA Exempt Chemical Mixtures Code Number

Not regulated

### CERCLA (Superfund) reportable quantity

None

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard - Yes

Delayed Hazard - Yes

Fire Hazard - Yes

Pressure Hazard - No

Reactivity Hazard - No

#### Section 302 extremely hazardous substance

No

#### Section 311 hazardous chemical

No

**Inventory status**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations**

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US - New Jersey RTK - Substances: Listed substance**

Isopropyl alcohol (CAS 67-63-0) Listed.

**US - Pennsylvania RTK - Hazardous Substances: Listed substance**

Isopropyl alcohol (CAS 67-63-0) Listed.

**16. Other Information****HMIS® ratings**

Health: 2  
Flammability: 3  
Physical hazard: 0  
Personal protection: B

**NFPA ratings**

Health: 2  
Flammability: 3  
Instability: 0

**Disclaimer**

THIS PRODUCT'S HEALTH AND SAFETY INFORMATION IS PROVIDED TO ASSIST OUR CUSTOMERS IN ASSESSING COMPLIANCE WITH HEALTH, SAFETY AND ENVIRONMENTAL REGULATIONS. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US, AND IS BELIEVED TO BE ACCURATE, ALTHOUGH NO GUARANTEE OR WARRANTY IS PROVIDED OR IMPLIED BY THE COMPANY IN THIS RESPECT. SINCE THE USE OF THIS PRODUCT IS WITHIN THE EXCLUSIVE CONTROL OF THE USER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE CONDITIONS OF SAFE USE. SUCH CONDITIONS MUST COMPLY WITH ALL GOVERNMENTAL REGULATIONS.

**Issue date**

June-04-2007

**This data sheet contains changes from the previous version in section(s):**

Product and Company Identification: Alternate Trade Names  
Transport Information: Agency Name, Packaging Type, and Transport Mode Selection