



From NUANCE SOLUTIONS

# Safety Data Sheet

December 7, 2017

## 1. IDENTIFICATION

### Product Identifier

**Product Name** FORMULA FOURTEEN-COMPONENT B

### Other means of identification

**Product Code** 8848

### Recommended use of the chemical and restrictions on use

**Recommended Use** Concentrated industrial cleaning solution. For professional use only.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

NUANCE SOLUTIONS  
900 East 103rd Street  
Chicago, IL 60628  
www.nuancesolutions.com

### Emergency Telephone Number

**Company Phone Number** Phone: 800-621-8553  
Fax: 800-621-1276  
**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Clear orange liquid      **Physical State** Liquid      **Odor** Citrus

### Classification

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Skin sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 2
Flammable Liquids	Category 3

### Hazards Not Otherwise Classified (HNO C)

May be harmful in contact with skin

### Signal Word

**Warning**

### Hazard Statements

Harmful if swallowed  
Causes skin irritation  
May cause an allergic skin reaction  
May cause damage to organs through prolonged or repeated exposure  
Flammable liquid and vapor



#### **Precautionary Statements - Prevention**

Use personal protective equipment as required  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves  
Do not breathe dust/fume/gas/mist/vapors/spray  
Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge

#### **Precautionary Statements - Response**

IF ON SKIN: Wash with plenty of soap and water  
Take off immediately all contaminated clothing and wash it before reuse  
If skin irritation or rash occurs: Get medical advice/attention  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
Rinse mouth  
IN CASE OF FIRE: Use CO<sub>2</sub>, dry chemical, or alcohol resistant foam to extinguish.

#### **Precautionary Statements - Storage**

Store in a well-ventilated place  
Keep cool

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

#### **Other Hazards**

Very toxic to aquatic life with long lasting effects

#### **Unknown Acute Toxicity**

11.2% of the mixture consists of ingredient(s) of unknown toxicity

### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Chemical Name</b>	<b>CAS No</b>	<b>Weight-%</b>
Alkyl Phenol Ethoxylate	Proprietary	25-30
Diethylene glycol	111-46-6	15-20
Cocamidopropyl betaine	61789-40-0	15-20
d-Limonene	5989-27-5	15-20
Ethyl Alcohol	64-17-5	<5

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

## 4. FIRST-AID MEASURES

### First Aid Measures

<b>Eye Contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if necessary.
<b>Skin Contact</b>	IF ON SKIN: Wash with plenty of soap and water. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
<b>Inhalation</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if necessary.
<b>Ingestion</b>	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

### Most important symptoms and effects

<b>Symptoms</b>	Causes skin irritation. May cause an allergic skin reaction. May be harmful in contact with skin. Harmful if swallowed.
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### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Treat symptomatically.
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## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

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

**Unsuitable Extinguishing Media** Not determined.

### Specific Hazards Arising from the Chemical

Flammable liquid and vapor.

**Sensitivity to Static Discharge** Take precautionary measures against static discharge.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal Precautions</b>	Use personal protective equipment as required.
<b>Environmental Precautions</b>	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

### Methods and material for containment and cleaning up

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Clean-Up</b>	Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Advice on Safe Handling**

Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Wash face, hands, and any exposed skin thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Ground/bond container and receiving equipment. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges.

### Conditions for safe storage, including any incompatibilities

#### **Storage Conditions**

Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Keep out of the reach of children.

#### **Incompatible Materials**

Acids. Oxidizing agents. Bleach. Do not mix with other chemicals or cleaners.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethyl Alcohol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m <sup>3</sup>	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>

### Appropriate engineering controls

#### **Engineering Controls**

Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

### Individual protection measures, such as personal protective equipment

#### **Eye/Face Protection**

Wear approved safety goggles where a splash hazard exists.

#### **Skin and Body Protection**

Wear suitable protective clothing.

#### **Respiratory Protection**

Ensure adequate ventilation, especially in confined areas.

#### **General Hygiene Considerations**

Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

**Physical State**  
**Appearance**  
**Color**

Liquid  
Clear orange liquid  
Clear orange

**Odor**  
**Odor Threshold**

Citrus  
Not determined

#### Property

#### Values

#### Remarks • Method

**pH**  
**Melting Point/Freezing Point**  
**Boiling Point/Boiling Range**

7.0  
Not determined  
100 °C / 212 °F

IBP

<b>Flash Point</b>	50 °C / 122 °F	Tag Closed Cup
<b>Evaporation Rate</b>	Equal to water	
<b>Flammability (Solid, Gas)</b>	Liquid-not applicable	
<b>Upper Flammability Limits</b>	Not determined	
<b>Lower Flammability Limit</b>	Not determined	
<b>Vapor Pressure</b>	Not determined	
<b>Vapor Density</b>	Not determined	
<b>Specific Gravity</b>	1.03	
<b>Water Solubility</b>	Soluble in water	
<b>Solubility in other solvents</b>	Not determined	
<b>Partition Coefficient</b>	Not determined	
<b>Auto-ignition Temperature</b>	Not determined	
<b>Decomposition Temperature</b>	Not determined	
<b>Kinematic Viscosity</b>	Not determined	
<b>Dynamic Viscosity</b>	Water thin (<5 cps)	
<b>Explosive Properties</b>	Not determined	
<b>Oxidizing Properties</b>	Not determined	
<b>VOC Content (%)</b>	19.0%	
<b>Density</b>	8.55 lb/gal	

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

**Hazardous Polymerization**      Hazardous polymerization does not occur.

### Conditions to Avoid

Keep out of reach of children.

### Incompatible Materials

Acids. Oxidizing agents. Bleach. Do not mix with other chemicals or cleaners.

### Hazardous Decomposition Products

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### **Product Information**

<b>Eye Contact</b>	Avoid contact with eyes.
<b>Skin Contact</b>	Causes skin irritation. May be harmful in contact with skin.
<b>Inhalation</b>	Avoid breathing vapors or mists.
<b>Ingestion</b>	Harmful if swallowed.

## Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Alkyl Phenol Ethoxylate	= 1310 mg/kg ( Rat )	= 2 mL/kg ( Rabbit )	-
Diethylene glycol 111-46-6	= 12565 mg/kg ( Rat )	= 11890 mg/kg ( Rabbit )	-
Cocamidopropyl betaine 61789-40-0	= 4900 mg/kg ( Rat )	-	-
d-Limonene 5989-27-5	-	> 5 g/kg ( Rabbit )	-
Water 7732-18-5	> 90 mL/kg ( Rat )	-	-
Ethyl Alcohol 64-17-5	= 7060 mg/kg ( Rat )	-	= 124.7 mg/L ( Rat ) 4 h

## Information on physical, chemical and toxicological effects

**Symptoms** Please see section 4 of this SDS for symptoms.

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Sensitization** May cause an allergic skin reaction.

**Carcinogenicity** This product is not expected to present a carcinogenic hazard. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as an alcoholic beverage.

Chemical Name	ACGIH	IARC	NTP	OSHA
d-Limonene 5989-27-5		Group 3		X
Ethyl Alcohol 64-17-5	A3	Group 1	Known	X

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A3 - Animal Carcinogen

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

Group 1 - Carcinogenic to Humans

Group 3 IARC components are "not classifiable as human carcinogens"

**NTP (National Toxicology Program)**

Known - Known Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

## Numerical measures of toxicity

Not determined

**Unknown Acute Toxicity** 11.2% of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Very toxic to aquatic life with long lasting effects.

### Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Diethylene glycol 111-46-6		75200: 96 h Pimephales promelas mg/L LC50 flow-through	EC50 = 29228 mg/L 15 min	84000: 48 h Daphnia magna mg/L EC50
Cocamidopropyl betaine 61789-40-0	1.0 - 10.0: 72 h Desmodemus subspicatus mg/L EC50 0.55: 96 h Desmodemus subspicatus mg/L EC50	1.0 - 10.0: 96 h Brachydanio rerio mg/L LC50 2: 96 h Brachydanio rerio mg/L LC50 semi-static		6.5: 48 h Daphnia magna mg/L EC50
d-Limonene 5989-27-5		0.619 - 0.796: 96 h Pimephales promelas mg/L LC50 flow-through 35: 96 h Oncorhynchus mykiss mg/L LC50		
Ethyl Alcohol 64-17-5		12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static

### Persistence/Degradability

Not determined.

### Bioaccumulation

Not determined.

### Mobility

Chemical Name	Partition Coefficient
Diethylene glycol 111-46-6	-1.98
Ethyl Alcohol 64-17-5	-0.32

### Other Adverse Effects

Not determined

## 13. DISPOSAL CONSIDERATIONS

### Waste Treatment Methods

#### **Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

#### **Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
d-Limonene 5989-27-5	Toxic
Ethyl Alcohol 64-17-5	Toxic Ignitable

## 14. TRANSPORT INFORMATION

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. According to 49 CFR §173.150(f)(1), this material should be reclassified as NA1993, Combustible Liquid, NOS if it is shipped in bulk.

**DOT** Not regulated

### IATA

**UN/ID No** UN1993  
**Proper Shipping Name** Flammable liquid, n.o.s. (ethanol)  
**Hazard Class** 3  
**Packing Group** III

### IMDG

**UN/ID No** UN1993  
**Proper Shipping Name** Flammable liquid, n.o.s. (ethanol)  
**Hazard Class** 3  
**Packing Group** III  
**Marine Pollutant** This material may meet the definition of a marine pollutant

## 15. REGULATORY INFORMATION

### International Inventories

Not determined

#### **Legend:**

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*  
*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*  
*EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*  
*ENCS - Japan Existing and New Chemical Substances*  
*IECSC - China Inventory of Existing Chemical Substances*  
*KECL - Korean Existing and Evaluated Chemical Substances*  
*PICCS - Philippines Inventory of Chemicals and Chemical Substances*

### US Federal Regulations

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372



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**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**US State Regulations****California Proposition 65**

Ethyl alcohol is only a considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

Chemical Name	California Proposition 65
Ethyl Alcohol - 64-17-5	Carcinogen Developmental

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Diethylene glycol 111-46-6			X
Ethyl Alcohol 64-17-5	X	X	X

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	2	2	0	None
<b>HMIS</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical Hazards</b>	<b>Personal Protection</b>
	2	2	0	X

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**