

1. IDENTIFICATION

Product Identifier

Product Name FORMULA FIVE-COMPONENT B

Other means of identification

Product Code 8825

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 purple solution **Physical State** Liquid **Odor** Solvent

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Flammable Liquids	Category 4

Signal Word

Warning

Hazard Statements

Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
Combustible liquid



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Wear protective gloves/protective clothing/eye protection/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Keep away from flames and hot surfaces. - No smoking.

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 Call a poison center or doctor/physician if you feel unwell
 Take off contaminated clothing and wash it before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 IN CASE OF FIRE: Use CO2, dry chemical, or alcohol resistant foam to extinguish.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
 Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Unknown Acute Toxicity

14.1% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Ethylene Glycol Monobutyl Ether	111-76-2	55-65

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

Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	IF ON SKIN: Wash with plenty of soap and water. Call a poison center or doctor/physician if you feel unwell.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Most important symptoms and effects

Symptoms	Causes skin irritation. Causes serious eye irritation. Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO2). Dry chemical. Alcohol resistant foam.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Combustible liquid.

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

Personal Precautions	Use personal protective equipment as required.
Environmental Precautions	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

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	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. Do not eat, drink or smoke when using this product. Wash face, hands, and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed and store in a cool, dry and well-ventilated place. 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
Ethylene Glycol Monobutyl Ether 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m ³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m ³
Proprietary	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³

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

Do not eat, drink or smoke when using this product. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State
Appearance
Color

Liquid
Clear purple solution
Clear purple

Odor
Odor Threshold

Solvent
Not determined

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<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	8.0 (concentrate)	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	100 °C / 212 °F	IBP
Flash Point	67 °C / 153 °F	
Evaporation Rate	Equal to water	
Flammability (Solid, Gas)	Liquid-not applicable	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	0.950	
Water Solubility	Soluble in water	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
VOC Content (%)	61.5%	
Density	7.92 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

Eye Contact

Causes serious eye irritation.

Skin Contact

Causes skin irritation. Harmful in contact with skin.

Inhalation

Harmful if inhaled.

Ingestion

Harmful if swallowed.

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Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene Glycol Monobutyl Ether 111-76-2	= 470 mg/kg (Rat)	= 2270 mg/kg (Rat) = 220 mg/kg (Rabbit)	= 2.21 mg/L (Rat) 4 h = 450 ppm (Rat) 4 h
Alkyl Phenol Ethoxylate	= 1310 mg/kg (Rat)	= 2 mL/kg (Rabbit)	-
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Proprietary	= 20000 mg/kg (Rat)	= 20800 mg/kg (Rabbit)	-
Proprietary	= 4396 mg/kg (Rat)	= 12800 mg/kg (Rat) = 12870 mg/kg (Rabbit)	= 72.6 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

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethylene Glycol Monobutyl Ether 111-76-2	A3	Group 3		

*ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"*

Numerical measures of toxicity

Not determined

Unknown Acute Toxicity 14.1% of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ethylene Glycol Monobutyl Ether 111-76-2		1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50		1698 - 1940: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50
Proprietary	19000: 96 h Pseudokirchneriella subcapitata mg/L EC50	51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50		10000: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50 Static

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Proprietary	1000: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50 1000: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	9640: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 11130: 96 h <i>Pimephales promelas</i> mg/L LC50 static 1400000: 96 h <i>Lepomis macrochirus</i> µg/L LC50	13299: 48 h <i>Daphnia magna</i> mg/L EC50
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Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Ethylene Glycol Monobutyl Ether 111-76-2	0.81

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.

14. TRANSPORT INFORMATION**Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. DOT Ground: Combustible liquids are not regulated in non-bulk shipments per 49 CFR 173.150(f)(2).

DOT

Not regulated

IATA

Not regulated

IMDG

Not regulated

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*

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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 contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Ethylene Glycol Monobutyl Ether - 111-76-2	111-76-2	55-65	1.0
Proprietary -		<1	1.0

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

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ethylene Glycol Monobutyl Ether 111-76-2	X	X	X
Proprietary	X		X
Proprietary	X	X	X

16. OTHER INFORMATION

NFPA

Health Hazards

Flammability

Instability

Special Hazards

2

2

0

None

HMIS

Health Hazards

Flammability

Physical Hazards

Personal Protection

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