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**1. IDENTIFICATION**

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<b>Product Name</b>	Muni <sup>F3</sup> Green Plus 3%Alcohol Resistant Synthetic Foam Concentrate
<b>Recommended use of the chemical and restrictions on use</b>	
<b>Identified uses</b>	Firefighting Foam Concentrate
<b>Restrictions on Use</b>	See product data sheet
<b>Company Identification</b>	National Foam 350 East Union Street West Chester, PA 19382-3450 (610) 363-1400
<b>Customer Information Number</b>	(610) 363-1400
<b>Emergency Telephone Number</b>	Infotrac at (800) 535-5053
<b>Issue Date</b>	November 28, 2023
<b>Supersedes Date</b>	September 26, 2022

*Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200, the Canadian Hazardous Products Regulations (HPR) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)*

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**2. HAZARD IDENTIFICATION**

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**Hazard Classification**

Eye Damage/Irritation - Category 2A

Skin Corrosion/Irritation - Category 2

**Label Elements**

Hazard Symbols



Signal Word: Warning

**Hazard Statements**

Causes serious eye irritation.

Causes skin irritation.

**Precautionary Statements****Prevention**

Wash hands thoroughly after handling.

Wear protective gloves, eye protection and face protection.

**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. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

**Storage**

None

**Disposal**

None

**Other Hazards**

None identified.

**Specific Concentration Limits**

The values listed below represent the percentages of ingredients of unknown toxicity.

Acute oral toxicity	10 - 20%
Acute dermal toxicity	10 - 20%
Acute inhalation toxicity	30 - 40%
Acute aquatic toxicity	0%

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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This product is a mixture.

<b>Component</b>	<b>CAS Number</b>	<b>Concentration*</b>
Propylene Glycol Monobutyl Ether	5131-66-8	3 - 7%
Sodium Decyl Sulfate	142-87-0	1 - 5%
Sodium Octyl Sulfate	142-31-4	1 - 5%
Sodium laureth sulfate	68891-38-3	1 - 5%
Butanedioic acid, 2-sulfo-, C-isodecyl ester, disodium salt	37294-49-8	0.5 - 1.5%
1-Dodecanol	112-53-8	0.1- 1.0%
1-Tetradecanol	112-72-1	0.1- 1.0%

\*Exact concentration withheld as trade secret.

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**4. FIRST- AID MEASURES**

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**Description of necessary first-aid measures****Eyes**

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention.

**Skin**

Wash skin thoroughly with soap and water. Obtain medical attention if irritation persists.

**Ingestion**

Dilute by drinking large quantities of water and obtain medical attention.

**Inhalation**

Move victim to fresh air. Obtain medical attention immediately for any breathing difficulty.

**Most important symptoms/effects, acute and delayed**

Aside from the information found under Description of necessary first aid measures (above) and Indication of immediate medical attention and special treatment needed, no additional symptoms and effects are anticipated.

**Indication of immediate medical attention and special treatment needed****Notes to Physicians**

Treat symptomatically.

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**5. FIRE - FIGHTING MEASURES**

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**Suitable Extinguishing Media**

This preparation is used as an extinguishing agent and therefore is not a problem when trying to control a fire. Use extinguishing agent appropriate to other materials involved.

**Specific hazards arising from the chemical**

None known

**Special Protective Actions for Fire-Fighters**

Wear full protective clothing and self-contained breathing apparatus as appropriate for specific fire conditions.

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**6. ACCIDENTAL RELEASE MEASURES**

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**Personal precautions, protective equipment and emergency procedures**

Wear appropriate protective clothing. Prevent skin and eye contact.

**Environmental Precautions**

Prevent foam concentrate or foam solution from entering ground water, surface water, or storm drains. Discharge and disposal of concentrate or foam solution should be made in accordance with federal, state, and local regulations.

**Methods and materials for containment and cleaning up**

Contain and absorb using appropriate inert material and transfer into suitable containers for recovery or disposal.

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**7. HANDLING AND STORAGE**

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**Precautions for safe handling**

Wear appropriate protective clothing. Prevent skin and eye contact.

**Conditions for safe storage**

Store in original containers between 35°F and 120°F (2°C and 49°C). Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**Control parameters**

Exposure limits are listed below, if they exist.

**Propylene glycol monobutyl ether**

Manufacturer recommended limit: 50ppm TWA

**Sodium Decyl Sulfate**

None established

**Sodium Octyl Sulfate**

None established

**Sodium laureth sulfate**

None established

**Butanedioic acid, 2-sulfo-, C-isodecyl ester, disodium salt**

None established

**1-Dodecanol**

None established

**1-Tetradecanol**

None established

**Appropriate engineering controls**

Use with adequate ventilation. If this product is used in a pressurized system, there should be local procedures for the selection, training, inspection and maintenance of this equipment. When used in large volumes, use local exhaust ventilation.

**Individual protection measures****Respiratory Protection**

Wear respiratory protection if there is a risk of exposure to high vapor concentrations, aerosols or if applied to hot surfaces. A NIOSH approved full face respirator may be worn. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

**Skin Protection**

Gloves

**Eye/Face Protection**

Chemical goggles or safety glasses with side shields.

**Body Protection**

Normal work wear.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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**Appearance**

	<b>Physical State</b>	Liquid
	<b>Color</b>	Light yellow
<b>Odor</b>		Characteristic
<b>Odor Threshold</b>		No data available
<b>pH</b>		7 - 8
<b>Relative Density</b>		1 - 1.04
<b>Boiling Range/Point (°C/F)</b>		No data available
<b>Melting Point (°C/F)</b>		-6°C/21.2°F
<b>Flash Point (°C/F)</b>		>100°C/212°F
<b>Vapor Pressure</b>		No data available
<b>Evaporation Rate (BuAc=1)</b>		No data available
<b>Solubility in Water</b>		Soluble
<b>Vapor Density (Air = 1)</b>		Not applicable
<b>VOC (%)</b>		No data available
<b>Partition coefficient (n-octanol/water)</b>		No data available
<b>Viscosity</b>		No data available
<b>Auto-ignition Temperature</b>		Not applicable
<b>Decomposition Temperature</b>		No data available
<b>Upper explosive limit</b>		Not applicable
<b>Lower explosive limit</b>		Not applicable
<b>Flammability (solid, gas)</b>		Not applicable

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**10. STABILITY AND REACTIVITY**

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**Reactivity**

No data available.

**Chemical Stability**

Stable under normal conditions.

**Possibility of hazardous reactions**

Hazardous polymerization will not occur.

**Conditions to Avoid**

Contact with incompatible materials

**Incompatible Materials**

Water reactive materials – alkali metals – electrically energized equipment - oxidizing agents

**Hazardous Decomposition Products**

Oxides of carbon – sulfur oxides – nitrogen oxides – sodium oxides

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**11. TOXICOLOGICAL INFORMATION**

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**Acute Toxicity**

Propylene Glycol Monobutyl Ether

LD50 (Rat, male and female) 3,300 mg/kg

LD50 (Rat, male and female) > 2,000 mg/kg

**Specific Target Organ Toxicity (STOT) – single exposure**

No relevant studies identified.

**Specific Target Organ Toxicity (STOT) – repeat exposure**

No relevant studies identified.

**Serious Eye damage/Irritation**

Propylene Glycol Monobutyl Ether: Causes eye irritation.

Sodium decyl sulfate: Risk of serious eye damage ( $\geq 20\%$ ) Causes serious eye irritation ( $\geq 10 - < 20\%$ ).

Sodium octyl sulfate: Risk of serious eye damage ( $\geq 20\%$ ) Causes serious eye irritation ( $\geq 10 - < 20\%$ ).

Sodium laureth sulfate: Causes serious eye damage ( $\geq 10\%$ ). Causes serious eye irritation ( $\geq 5 - < 10\%$ ).

Butanedioic acid, 2-sulfo-, C-isodecyl ester, disodium salt: Causes serious eye damage.

**Skin Corrosion/Irritation**

Propylene Glycol Monobutyl Ether: Causes skin irritation.

Sodium decyl sulfate: Causes skin irritation in animal testing.

Sodium octyl sulfate: Causes skin irritation in animal testing.

Sodium laureth sulfate: Causes skin irritation.

**Respiratory or Skin Sensitization**

No relevant studies identified.

**Carcinogenicity**

Not considered carcinogenic by NTP, IARC, and OSHA.

**Germ Cell Mutagenicity**

No relevant studies identified.

**Reproductive Toxicity**

No relevant studies identified.

**Aspiration Hazard**

Not an aspiration hazard.

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**12. ECOLOGICAL INFORMATION**

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**Ecotoxicity**

Zebra Fish: Toxicity >100 mg/l

EC50 daphnia magna 139 mg/l 24 hr

EC50 daphnia magna 100 mg/l 48 hr

ErC50 Algae 348 mg/l 72 hr  
ErC20 Algae 238 mg/l 72 hr  
NOEC Algae 100 mg/l 72hr

**Mobility in soil**

No relevant studies identified.

**Persistence/Degradability**

This product is readily biodegradable. (OECD 301A)

Concentrate:

BOD<sub>5</sub>: 67,500 mgO<sub>2</sub>/L

COD: 449,900 mgO<sub>2</sub>/L

**Bioaccumulative Potential**

This product is not expected to bioaccumulate.

**Other adverse effects**

No relevant studies identified.

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**13. DISPOSAL CONSIDERATIONS**

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**Disposal Methods**

This product, as sold, is not a RCRA-listed waste or hazardous waste as characterized by 40 CFR 261. However, state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Therefore, applicable local and state regulatory agencies should be contacted regarding disposal of waste foam concentrate or foam/foam solution.

Concentrate

Prevent foam concentrate from entering ground water, surface water or storm drains. Small quantities of foam concentrate may be collected on absorbents which can then be disposed of. Disposal should be made in accordance with local, state and federal regulations.

Foam/Foam Solution

Prevent foam/foam solution from entering ground water, surface water or storm drains. Small quantities of foam solution may be collected on absorbents which can then be disposed of. Disposal should be made in accordance with local, state and federal regulations.

**NOTE:** Please consult National Foam for additional information regarding the disposal of foam concentrates and foam solutions.

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**14. TRANSPORT INFORMATION**

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**Shipping Information****Shipping Description****National Motor Freight Code**

Fire Extinguisher Charges or Compounds N.O.I., Class 70  
69160 Sub 0

**UN number**

Not regulated for transport

**UN proper shipping name**

Proper Shipping Name (DOT, TDG, IMDG, IATA): Not applicable

**Transport hazard class(es)**

Transport hazard class(es) (DOT, TDG, IMDG, IATA): Not applicable

**Packing group**

Packing group (DOT, TDG, IMDG, IATA): Not applicable

**Environmental hazards**

Other information:

No supplementary information available.

**Special precautions for user**

No data available

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

This information is not intended to convey all transportation classifications that may apply to this product. Classifications may vary by container volume and by regional regulations. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules when transporting this material.

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**15. REGULATORY INFORMATION**

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**United States TSCA Inventory**

All components of this product are in compliance with the inventory listing requirements of the US Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

**Canada DSL Inventory**

All ingredients in this product have been verified for listing on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL).

**SARA Title III Sect. 311/312 Categorization**

Eye Irritation – Skin Irritation

**SARA Title III Sect. 313**

This product contains the following chemicals that are listed in Section 313 at or above de minimis concentrations: None

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**

None

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**16. OTHER INFORMATION**

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**NFPA Ratings**

NFPA Code for Health - 2

NFPA Code for Flammability - 0

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards - None

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**16. OTHER INFORMATION**

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**Legend**

ACGIH: American Conference of Governmental Industrial Hygienists

BOD<sub>5</sub>: Biochemical Oxygen Demand (5 day)

CAS#: Chemical Abstracts Service Number

COD: Chemical Oxygen Demand

EC50: Effect Concentration 50%

IARC: International Agency for Research on Cancer

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%  
N/A: Denotes no applicable information found or available  
OSHA: Occupational Safety and Health Administration  
PEL: Permissible Exposure Limit  
RQ: Reportable Quantity  
STEL: Short Term Exposure Limit  
N/A: Denotes no applicable information found or available  
OSHA: Occupational Safety and Health Administration  
TLV: Threshold Limit Value  
TSCA: Toxic Substance Control Act

Revision Date: November 28, 2023  
Replaces: September 26, 2022  
Changes made: Update to section 14

**Information Source and References**

This SDS is prepared by National Foam based on information provided by supplier references.

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