



# MATERIAL SAFETY DATA SHEET

by Tyco Fire Suppression & Building Products

## FORAY

Product Code: 2001-2-015 ANa

Issue Date: 07-30-2010

### 1. Product and Company Identification

<b>Material name</b>	FORAY
<b>Version #</b>	01
<b>Revision date</b>	07-30-2010
<b>CAS #</b>	Mixture
<b>Product Code</b>	2001-2-015 ANa
<b>Product use</b>	Fire extinguishing agent
<b>Manufacturer / Importer / Supplier</b>	
<b>Name</b>	Tyco Fire Suppression and Building Products
<b>Address</b>	One Stanton Street Marinette, WI 54143-2542
<b>Phone</b>	715-735-7411
<b>Internet</b>	<a href="http://www.ansul.com">http://www.ansul.com</a>
<b>Emergency Phone Number</b>	CHEMTREC 800-424-9300 or 703-527-3887

### 2. Hazards Identification

<b>Emergency overview</b>	WARNING  Irritating to eyes and skin.
<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>	Avoid contact with eyes. Contact with eyes may cause irritation.
<b>Skin</b>	Avoid contact with the skin. May cause skin irritation.
<b>Inhalation</b>	Inhalation of dusts may cause respiratory irritation.
<b>Ingestion</b>	Not a likely route of entry.
<b>Target organs</b>	Eyes. Respiratory system. Skin.
<b>Signs and symptoms</b>	Irritation of eyes and mucous membranes.

### 3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
CALCIUM CARBONATE	471-34-1	1 - 2.5
Non-hazardous components	CAS #	Percent
Pigment Yellow 14	5468-75-7	0 - 0.1
Silicone fluid	63148-57-2	0.1 - 1
FULLERS EARTH	8031-18-3	2.5 - 10
Ammonium Sulfate	7783-20-2	10 - 20
Ammonium Phosphate	7722-76-1	60 - 80

### 4. First Aid Measures

<b>First aid procedures</b>	
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists after washing.

<b>Skin contact</b>	Wash off with warm water and soap. Get medical attention if irritation develops and persists.
<b>Inhalation</b>	Move to fresh air. Get medical attention, if needed.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Notes to physician</b>	Symptoms may be delayed.
<b>General advice</b>	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. Show this safety data sheet to the doctor in attendance.

## 5. Fire Fighting Measures

<b>Flammable properties</b>	No unusual fire or explosion hazards noted.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	This product is not flammable. Use extinguishing agent suitable for type of surrounding fire.
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	None known.
<b>Hazardous combustion products</b>	Carbon monoxide and carbon dioxide.

## 6. Accidental Release Measures

<b>Personal precautions</b>	Local authorities should be advised if significant spillages cannot be contained. Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
<b>Methods for containment</b>	If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Prevent entry into waterways, sewer, basements or confined areas.
<b>Methods for cleaning up</b>	Should not be released into the environment. Sweep up or vacuum up spillage and collect in suitable container for disposal. Collect dust using a vacuum cleaner equipped with HEPA filter. Avoid dust formation. Following product recovery, flush area with water.
<b>Other information</b>	Clean up in accordance with all applicable regulations.

## 7. Handling and Storage

<b>Handling</b>	Keep formation of airborne dusts to a minimum. Do not breathe dust. Avoid contact with eyes. Do not use in areas without adequate ventilation. Wear personal protective equipment. Wash thoroughly after handling.
<b>Storage</b>	Keep container tightly closed. Guard against dust accumulation of this material. Use care in handling/storage.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### U.S. - OSHA

Components	Type	Value	Form
CALCIUM CARBONATE (471-34-1)	PEL	5.0000 mg/m3	Respirable fraction.
		15.0000 mg/m3	Total dust.
	TWA	5.0000 mg/m3	Respirable fraction.
		15.0000 mg/m3	Total dust.

<b>Engineering controls</b>	Ensure adequate ventilation, especially in confined areas.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Do not get in eyes. Chemical goggles are recommended.
<b>Skin protection</b>	No special protective equipment required.
<b>Respiratory protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
<b>General hygiene considerations</b>	Do not get in eyes.

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## 9. Physical & Chemical Properties

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### Appearance

Form	Powder.
Color	Yellow.
Odor	Odorless.

### Physical state

Solid.

### pH

Not available.

### Melting point

Not available.

### Freezing point

Not available.

### Boiling point

Not available.

### Flash point

Not available.

### Evaporation rate

Not available.

### Flammability limits in air, upper, % by volume

Not available.

### Flammability limits in air, lower, % by volume

Not available.

### Vapor pressure

Not available.

### Vapor density

Not available.

### Specific gravity

Not available.

### Relative density

Not available.

### Solubility (water)

Not available.

### Partition coefficient (n-octanol/water)

Not available.

### Auto-ignition temperature

Not available.

### Decomposition temperature

Not available.

### VOC

Not available.

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## 10. Chemical Stability & Reactivity Information

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### Chemical stability

Material is stable under normal conditions.

### Incompatible materials

Strong acids.

### Hazardous decomposition products

Carbon oxides.

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## 11. Toxicological Information

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### Toxicological information

The toxicity of this product has not been tested.

### Toxicological data

#### Components

#### Test Results

CALCIUM CARBONATE (471-34-1)

Acute Oral LD50 Rat: 6450 mg/kg

#### Local effects

Components of the product may be absorbed into the body through the skin. Contact may irritate or burn eyes.

#### Chronic effects

Hazardous by OSHA criteria. Prolonged inhalation may be harmful.

#### Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

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## 12. Ecological Information

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### Ecotoxicological data

#### Components

#### Test Results

CALCIUM CARBONATE (471-34-1)

LC50 Western mosquitofish (*Gambusia affinis*): > 56000 mg/l  
96.00 Hours

Ammonium Sulfate (7783-20-2)

EC50 Water flea (*Ceriodaphnia dubia*): 52 - 67 mg/l  
48.00 hours

LC50 Pink salmon (*Oncorhynchus gorbuscha*): 0.068 mg/l  
96.00 hours

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<b>Ecotoxicity</b>	This material is not expected to be harmful to aquatic life.
<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
<b>Persistence and degradability</b>	Not available.

### 13. Disposal Considerations

<b>Disposal instructions</b>	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations.

### 14. Transport Information

#### DOT

Not regulated as dangerous goods.

### 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.

CERCLA/SARA Hazardous Substances - Not applicable.

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration**

Ammonium Phosphate (CAS 7722-76-1)	1.0 %
Ammonium Sulfate (CAS 7783-20-2)	1.0 %

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance**

Ammonium Phosphate (CAS 7722-76-1)	Listed.
Ammonium Sulfate (CAS 7783-20-2)	Listed.

**CERCLA (Superfund) reportable quantity**

None

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

<b>Hazard categories</b>	Acute Health - Yes Chronic Health - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** No

**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
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 - Pennsylvania RTK - Hazardous Substances: Listed substance**

Ammonium Sulfate (CAS 7783-20-2)

Listed.

CALCIUM CARBONATE (CAS 471-34-1)

Listed.

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**16. Other Information**

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**Further information**

HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings**

Health: 1\*

Flammability: 0

Physical hazard: 0

**NFPA ratings**

Health: 1

Flammability: 0

Instability: 0

**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.

**Issue date**

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