

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Trade name : Formula FS  
Product code : 0369

#### 1.2. Recommended use and restrictions on use

Recommended use : Surface cleaning

#### 1.3. Supplier

Synthetic Labs  
24 Victory Lane  
Dracut, MA 01826 - United States  
T 800.255.4050 - F 978.957.5122  
[www.syntecpro.com](http://www.syntecpro.com)

#### 1.4. Emergency telephone number

Emergency number : Infotrac 24 Hour Medical Emergency Number: 1-800-535-5053

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Skin corrosion/irritation Category 1A Causes severe skin burns and eye damage  
Serious eye damage/eye irritation Category 1 Causes serious eye damage

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger  
Hazard statements (GHS US) : Causes severe skin burns and eye damage  
Causes serious eye damage  
Precautionary statements (GHS US) : Do not breathe dust/fume/gas/mist/vapours/spray.  
Wash hands, forearms and face thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If swallowed: rinse mouth. Do NOT induce vomiting.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a poison center or doctor.  
Specific treatment (see supplemental first aid instruction on this label).  
Wash contaminated clothing before reuse.  
Store locked up.  
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

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### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
Ethylene Glycol Monobutyl Ether	(CAS-No.) 111-76-2	5 – 10	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319
Sodium hydroxide	(CAS-No.) 1310-73-2	5 – 10	Acute Tox. 1 (Oral), H300 Skin Corr. 1, H314 Eye Dam. 1, H318
Disodium Metasilicate	(CAS-No.) 6834-92-0	1 – 5	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1, H314 Eye Dam. 1, H318 STOT SE 3, H335
Tetrasodium ethylenediaminetetraacetate	(CAS-No.) 64-02-8	1 – 5	Eye Dam. 1, H318

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Call a physician immediately.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
- First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

#### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after skin contact : Burns.
- Symptoms/effects after eye contact : Serious damage to eyes.
- Symptoms/effects after ingestion : Burns.

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

#### 5.2. Specific hazards arising from the chemical

- Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

##### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

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### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.  
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>Formula FS</b>	
No additional information available	
<b>Sodium hydroxide (1310-73-2)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Sodium hydroxide
ACGIH Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Remark (ACGIH)	URT, eye, & skin irr
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Sodium hydroxide
OSHA PEL (TWA) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
<b>Tetrasodium ethylenediaminetetraacetate (64-02-8)</b>	
No additional information available	
<b>Disodium Metasilicate (6834-92-0)</b>	
No additional information available	
<b>Ethylene Glycol Monobutyl Ether (111-76-2)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (ppm)	20 ppm

### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

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In case of insufficient ventilation, wear suitable respiratory equipment

### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Green
Odor	: characteristic
Odor threshold	: No data available
pH	: 14 (13.5 – 14)
pH solution	: 13 – 13.5
Melting point	: Not applicable
Freezing point	: 32 °F
Boiling point	: No data available
Flash point	: > 300 °F
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 1.05 g/m <sup>3</sup>
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

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### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

<b>Tetrasodium ethylenediaminetetraacetate (64-02-8)</b>	
LD50 oral rat	> 2000 mg/kg (Rat, Oral)
<b>Disodium Metasilicate (6834-92-0)</b>	
LD50 oral rat	1152 – 1349 mg/kg body weight (Rat, Male / female, Experimental value, Oral)
LD50 dermal rat	> 5000 mg/kg body weight (EPA OPPTS 870.1200: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 inhalation rat (mg/l)	> 2.06 mg/l (EPA OPPTS 870.1300: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
<b>Ethylene Glycol Monobutyl Ether (111-76-2)</b>	
LD50 oral rat	1746 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 inhalation rat (ppm)	450 ppm (Equivalent or similar to OECD 403, 4 h, Rat, Female, Experimental value, Inhalation (vapours))

Skin corrosion/irritation : Causes severe skin burns.  
pH: 14 (13.5 – 14)  
Serious eye damage/irritation : Causes serious eye damage.  
pH: 14 (13.5 – 14)  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
Specific target organ toxicity – single exposure : Not classified

<b>Disodium Metasilicate (6834-92-0)</b>	
Specific target organ toxicity – single exposure	May cause respiratory irritation.

Specific target organ toxicity – repeated exposure : Not classified  
Aspiration hazard : Not classified  
Viscosity, kinematic : No data available  
Symptoms/effects after skin contact : Burns.  
Symptoms/effects after eye contact : Serious damage to eyes.  
Symptoms/effects after ingestion : Burns.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

<b>Sodium hydroxide (1310-73-2)</b>	
LC50 fish 1	45.4 mg/l (96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Solution >=50%)
EC50 Daphnia 1	40.4 mg/l (48 h, Ceriodaphnia sp., Experimental value, Nominal concentration)

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<b>Tetrasodium ethylenediaminetetraacetate (64-02-8)</b>	
LC50 fish 1	121 mg/l (96 h, Lepomis macrochirus, Literature study, Soft water)
EC50 Daphnia 1	625 mg/l (24 h, Daphnia magna, Literature study)
<b>Disodium Metasilicate (6834-92-0)</b>	
LC50 fish 1	210 mg/l (ISO 7346-1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value)
EC50 Daphnia 1	1700 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
<b>Ethylene Glycol Monobutyl Ether (111-76-2)</b>	
LC50 fish 1	1474 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 Daphnia 1	1550 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)

### 12.2. Persistence and degradability

<b>Sodium hydroxide (1310-73-2)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
<b>Tetrasodium ethylenediaminetetraacetate (64-02-8)</b>	
Persistence and degradability	Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	< 0.002 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.54 – 0.58 g O <sub>2</sub> /g substance
<b>Disodium Metasilicate (6834-92-0)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
<b>Ethylene Glycol Monobutyl Ether (111-76-2)</b>	
Persistence and degradability	Readily biodegradable in water.

### 12.3. Bioaccumulative potential

<b>Sodium hydroxide (1310-73-2)</b>	
Bioaccumulative potential	Not bioaccumulative.
<b>Tetrasodium ethylenediaminetetraacetate (64-02-8)</b>	
Partition coefficient n-octanol/water (Log Pow)	-2.6
Bioaccumulative potential	Not bioaccumulative.
<b>Disodium Metasilicate (6834-92-0)</b>	
Bioaccumulative potential	Bioaccumulation: not applicable.
<b>Ethylene Glycol Monobutyl Ether (111-76-2)</b>	
Partition coefficient n-octanol/water (Log Pow)	0.81 (Test data, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

### 12.4. Mobility in soil

<b>Sodium hydroxide (1310-73-2)</b>	
Ecology - soil	No (test)data on mobility of the substance available.
<b>Disodium Metasilicate (6834-92-0)</b>	
Ecology - soil	No (test)data on mobility of the substance available.
<b>Ethylene Glycol Monobutyl Ether (111-76-2)</b>	
Surface tension	65.03 mN/m (20 °C, 2 g/l)
Ecology - soil	Low potential for adsorption in soil.

### 12.5. Other adverse effects

No additional information available

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### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1760 Corrosive liquids, n.o.s. (Sodium Hydroxide), 8, II  
UN-No.(DOT) : UN1760  
Proper Shipping Name (DOT) : Corrosive liquids, n.o.s.  
Sodium Hydroxide  
Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136  
Packing group (DOT) : II - Medium Danger  
Hazard labels (DOT) : 8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx) : 202  
DOT Packaging Bulk (49 CFR 173.xxx) : 242  
DOT Symbols : G - Identifies PSN requiring a technical name  
DOT Special Provisions (49 CFR 172.102) : B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized.  
IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.  
T11 - 6 178.274(d)(2) Normal..... 178.275(d)(3)  
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.  
TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.  
DOT Packaging Exceptions (49 CFR 173.xxx) : 154  
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L  
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L  
DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.  
DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"  
Emergency Response Guide (ERG) Number : 154  
Other information : No supplementary information available.

#### Transportation of Dangerous Goods

Not applicable

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### Transport by sea

Transport document description (IMDG) : UN 1760 CORROSIVE LIQUID, N.O.S., 8, II  
UN-No. (IMDG) : 1760  
Proper Shipping Name (IMDG) : CORROSIVE LIQUID, N.O.S.  
Class (IMDG) : 8 - Corrosive substances  
Packing group (IMDG) : II - substances presenting medium danger

### Air transport

Transport document description (IATA) : UN 1760 Corrosive liquid, n.o.s., 8, II  
UN-No. (IATA) : 1760  
Proper Shipping Name (IATA) : Corrosive liquid, n.o.s.  
Class (IATA) : 8 - Corrosives  
Packing group (IATA) : II - Medium Danger

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Sodium hydroxide (1310-73-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ 1000 lb

#### Tetrasodium ethylenediaminetetraacetate (64-02-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### Disodium Metasilicate (6834-92-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### Ethylene Glycol Monobutyl Ether (111-76-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

#### CANADA

#### Sodium hydroxide (1310-73-2)

Listed on the Canadian DSL (Domestic Substances List)

#### Tetrasodium ethylenediaminetetraacetate (64-02-8)

Listed on the Canadian DSL (Domestic Substances List)

#### Disodium Metasilicate (6834-92-0)

Listed on the Canadian DSL (Domestic Substances List)

#### Ethylene Glycol Monobutyl Ether (111-76-2)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

### 15.3. US State regulations

Component	State or local regulations
Ethylene Glycol Monobutyl Ether(111-76-2)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Sodium hydroxide(1310-73-2)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

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Revision date : 03/14/2017

Hazard Rating  
Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*