# Formula 45

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
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## SECTION 1: Identification

### 1.1. Identification

Product form : Mixture
Trade name : Formula 45
Product code : 0359

### 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

### 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**

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 serious eye damage
Precautionary statements (GHS US) : Wear protective gloves/protective clothing/eye protection/face protection.
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.

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

No additional information available

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

No additional information available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|---|---|---|---|
| Dipropylene Glycol Monoethyl Ether | CAS-No.: 34590-94-8 | 1 – 5 | Flam. Liq. 4, H227 |
| Disodium Metasilicate | CAS-No.: 6834-92-0 | 1 – 5 | Met. Corr. 1, H290<br>Acute Tox. 4 (Oral), H302<br>Acute Tox. 4 (Inhalation:dust,mist), H332<br>Skin Corr. 1B, H314<br>STOT SE 3, H335 |

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/vapors/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".

### 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/vapors/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

**Formula 45**

No additional information available

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

No additional information available

**Dipropylene Glycol Monoethyl Ether (34590-94-8)**

| USA - ACGIH - Occupational Exposure Limits | |
|---|---|
| ACGIH OEL TWA [ppm] | 100 ppm |
| ACGIH OEL STEL [ppm] | 150 ppm |
| **USA - OSHA - Occupational Exposure Limits** | |
| Local name | Dipropylene glycol methyl ether |
| OSHA PEL (TWA) [1] | 600 mg/m³ |

| Dipropylene Glycol Monoethyl Ether (34590-94-8) | |
|---|---|
| OSHA PEL (TWA) [2] | 100 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:**

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 | : | clear |
| Odor | : | odorless |
| Odor threshold | : | No data available |
| pH | : | 12.5 |
| pH solution | : | 11 – 12 |
| 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 |
| Density | : | 1.03 g/m³ |
| Molecular mass | : | 1.03 g/mol |
| 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

### 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

| Disodium Metasilicate (6834-92-0) | |
|---|---|
| LD50 oral rat | 1152 – 1349 mg/kg body weight (Rat, Male / female, Experimental value, Oral, 7 day(s)) |
| 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 | > 2.06 mg/l (EPA OPPTS 870.1300: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) |
| ATE US (oral) | 1152 mg/kg body weight |
| ATE US (dust, mist) | 1.5 mg/l/4h |

| Dipropylene Glycol Monoethyl Ether (34590-94-8) | |
|---|---|
| LD50 oral rat | > 5000 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| LD50 dermal rabbit | 9510 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s)) |

| Dipropylene Glycol Monoethyl Ether (34590-94-8) | |
|---|---|
| ATE US (dermal) | 9510 mg/kg body weight |

Skin corrosion/irritation : Not classified.
pH: 12.5

| Disodium Metasilicate (6834-92-0) | |
|---|---|
| pH | No data available in the literature |

| Dipropylene Glycol Monoethyl Ether (34590-94-8) | |
|---|---|
| pH | 7 (100 %, 25 °C) |

Serious eye damage/irritation : Causes serious eye damage.
pH: 12.5

| Disodium Metasilicate (6834-92-0) | |
|---|---|
| pH | No data available in the literature |

| Dipropylene Glycol Monoethyl Ether (34590-94-8) | |
|---|---|
| pH | 7 (100 %, 25 °C) |

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified

| Disodium Metasilicate (6834-92-0) | |
|---|---|
| STOT-single exposure | May cause respiratory irritation. |

STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available

| Disodium Metasilicate (6834-92-0) | |
|---|---|
| Viscosity, kinematic | Not applicable (solid) |

| Dipropylene Glycol Monoethyl Ether (34590-94-8) | |
|---|---|
| Viscosity, kinematic | 4.55 mm²/s (20 °C, OECD 114: Viscosity of Liquids) |

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.

| Disodium Metasilicate (6834-92-0) | |
|---|---|
| LC50 - Fish [1] | 210 mg/l (ISO 7346-1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value) |
| EC50 - Crustacea [1] | 1700 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP) |

| Dipropylene Glycol Monoethyl Ether (34590-94-8) | |
|---|---|
| LC50 - Fish [1] | > 1000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Poecilia reticulata, Static system, Fresh water, Experimental value, GLP) |

| Dipropylene Glycol Monoethyl Ether (34590-94-8) | |
|---|---|
| ErC50 algae | > 969 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP) |

### 12.2. Persistence and degradability

| Disodium Metasilicate (6834-92-0) | |
|---|---|
| Persistence and degradability | Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable (inorganic) |
| ThOD | Not applicable (inorganic) |

| Dipropylene Glycol Monoethyl Ether (34590-94-8) | |
|---|---|
| Persistence and degradability | Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0 g $O_2$/g substance |
| ThOD | 2.06 g $O_2$/g substance |

### 12.3. Bioaccumulative potential

| Disodium Metasilicate (6834-92-0) | |
|---|---|
| Bioaccumulative potential | Not bioaccumulative. |

| Dipropylene Glycol Monoethyl Ether (34590-94-8) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | 0.004 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

### 12.4. Mobility in soil

| Disodium Metasilicate (6834-92-0) | |
|---|---|
| Surface tension | No data available in the literature |
| Ecology - soil | Low potential for adsorption in soil. |

| Dipropylene Glycol Monoethyl Ether (34590-94-8) | |
|---|---|
| Surface tension | 68.7 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 1 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

### 12.5. Other adverse effects

No additional information available

## 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

### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

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

### 14.3. Transport hazard class(es)

**DOT**
Transport hazard class(es) (DOT) : Not applicable

**TDG**
Transport hazard class(es) (TDG) : Not applicable

**IMDG**
Transport hazard class(es) (IMDG) : Not applicable

**IATA**
Transport hazard class(es) (IATA) : Not applicable

### 14.4. Packing group

| | | |
|---|---|---|
| Packing group (DOT) | : | Not applicable |
| Packing group (TDG) | : | Not applicable |
| Packing group (IMDG) | : | Not applicable |
| Packing group (IATA) | : | Not applicable |

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

**DOT**
No data available

**TDG**
No data available

**IMDG**
No data available

**IATA**
No data available

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

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

| Name | CAS-No. | Listing | Commercial status | Flags |
|---|---|---|---|---|
| Disodium Metasilicate | 6834-92-0 | Present | Active | |
| Dipropylene Glycol Monoethyl Ether | 34590-94-8 | Present | Active | |

### 15.2. International regulations

**CANADA**

| Disodium Metasilicate (6834-92-0) |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| Dipropylene Glycol Monoethyl Ether (34590-94-8) |
|---|
| 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 |
|---|---|
| Dipropylene Glycol Monoethyl Ether(34590-94-8) | U.S. - New Jersey - Right to Know Hazardous Substance List |

## SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision date : 1/8/2024

Hazard Rating
Health : 2 Moderate Hazard - Temporary or minor injury may occur
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.

Safety Data Sheet (SDS), USA

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.