

**SAFETY DATA SHEET**

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 01/04/2018

Version 1.3

**SECTION 1. Identification****Product identifier**

Catalog No. 110036

Product name Formaldehyde Test Method: colorimetric with test strips and reagent MQuant™

Fo-1

**Relevant identified uses of the substance or mixture and uses advised against**

Identified uses Reagent for analysis

**Details of the supplier of the safety data sheet**

Company EMD Millipore Corporation | 400 Summit Drive | Burlington | Massachusetts 01803 | United States of America | General Inquiries: +1 800-645-5476 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)  
MilliporeSigma is a business of Merck KGaA, Darmstadt, Germany.

**Emergency telephone**

800-424-9300 CHEMTREC (USA)  
+1-703-527-3887 CHEMTREC (International)  
24 Hours/day; 7 Days/week

**SECTION 2. Hazards identification****GHS Classification**

Corrosive to Metals, Category 1, H290  
Skin corrosion, Category 1A, H314  
Serious eye damage, Category 1, H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

**GHS-Labeling**

*Hazard pictograms*



*Signal Word*

Danger

*Hazard Statements*

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

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## *Precautionary Statements*

P234 Keep only in original container.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P363 Wash contaminated clothing before reuse.  
P390 Absorb spillage to prevent material damage.  
P405 Store locked up.  
P406 Store in corrosive resistant stainless steel container with a resistant inner liner.  
P501 Dispose of contents/ container to an approved waste disposal plant.

## **Other hazards**

None known.

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## **SECTION 3. Composition/information on ingredients**

Chemical nature                      Aqueous solution

### **Hazardous ingredients**

*Chemical name (Concentration)*

CAS-No.

*sodium hydroxide (>= 30 % - < 50 % )*

1310-73-2

Exact percentages are being withheld as a trade secret.

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## **SECTION 4. First aid measures**

### **Description of first-aid measures**

*General advice*

First aider needs to protect himself.

*Inhalation*

After inhalation: fresh air. Call in physician.

*Skin contact*

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

*Eye contact*

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

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## *Ingestion*

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation!). Call a physician immediately. Do not attempt to neutralize.

## **Most important symptoms and effects, both acute and delayed**

Irritation and corrosion, Cough, Shortness of breath, collapse, death  
Risk of blindness!

## **Indication of any immediate medical attention and special treatment needed**

No information available.

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## **SECTION 5. Fire-fighting measures**

### **Extinguishing media**

#### *Suitable extinguishing media*

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### *Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

### **Special hazards arising from the substance or mixture**

Not combustible.  
Ambient fire may liberate hazardous vapors.

### **Advice for firefighters**

#### *Special protective equipment for fire-fighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

#### *Further information*

Suppress (knock down) gases/vapors/mists with a water spray jet.

Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## **SECTION 6. Accidental release measures**

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

Advice for non-emergency personnel: Avoid substance contact. Do not breathe vapors, aerosols. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

### **Environmental precautions**

Do not let product enter drains.

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

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Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralizing material (e.g. Chemisorb® OH<sup>-</sup>, Art. No. 101596). Dispose of properly. Clean up affected area.

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## SECTION 7. Handling and storage

### Precautions for safe handling

Observe label precautions.

### Conditions for safe storage, including any incompatibilities

*Requirements for storage areas and containers*

No aluminum, tin, or zinc containers.

Tightly closed.

Store at +2°C to +8°C (+36°F to +46°F).

The data applies to the entire pack.

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## SECTION 8. Exposure controls/personal protection

### Exposure limit(s)

#### *Ingredients*

Basis	Value	Threshold limits	Remarks
<i>sodium hydroxide (1310-73-2)</i>			
ACGIH	Ceiling Limit Value:	2 mg/m <sup>3</sup>	
NIOSH/GUIDE	Ceiling Limit Value and Time Period (if specified):	2 mg/m <sup>3</sup>	
OSHA_TRANS	PEL:	2 mg/m <sup>3</sup>	
Z1A	Ceiling Limit Value:	2 mg/m <sup>3</sup>	

### Engineering measures

#### Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

#### *Hygiene measures*

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

#### *Eye/face protection*

Tightly fitting safety goggles

#### *Hand protection*

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

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*Other protective equipment:*

protective clothing

*Respiratory protection*

required when vapors/aerosols are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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## SECTION 9. Physical and chemical properties

Physical state	liquid
Color	colorless
Odor	odorless
Odor Threshold	Not applicable
pH	14 at 68 °F (20 °C)
Melting point	48 °F (9 °C)
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor pressure	ca.8 hPa at 68 °F (20 °C)
Relative vapor density	No information available.
Density	1.35 g/cm <sup>3</sup> at 68 °F (20 °C)
Relative density	No information available.
Water solubility	at 68 °F (20 °C) soluble

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Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	19 mPa.s at 68 °F (20 °C)
Explosive properties	Not classified as explosive.
Oxidizing properties	none
Ignition temperature	Not applicable
Corrosion	May be corrosive to metals.

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## SECTION 10. Stability and reactivity

### Reactivity

See below

### Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapors with:

Metals, Light metals

Possible formation of:

Hydrogen

Violent reactions possible with:

ammonium compounds, Cyanides, organic nitro compounds, organic combustible substances, phenols, powdered alkaline earth metals, acids, Nitriles, magnesium

### Conditions to avoid

no information available

### Incompatible materials

Aluminum, various plastics, brass, Metals, metal alloys, Zinc, Tin, Light metals, glass, quartzes/silicate ceramics, animal/vegetable tissues

### Hazardous decomposition products

no information available

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## SECTION 11. Toxicological information

### Information on toxicological effects

#### *Likely route of exposure*

Inhalation, Eye contact, Skin contact

#### *Target Organs*

Eyes

Skin

Respiratory system

Lungs

Gastro-intestinal system

head

tongue

trachea

#### *Acute oral toxicity*

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

#### *Acute inhalation toxicity*

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:., damage of respiratory tract

#### *Skin irritation*

Necrosis

Mixture causes severe burns.

#### *Eye irritation*

Mixture causes serious eye damage. Risk of blindness! Necrosis

#### *Specific target organ systemic toxicity - single exposure*

The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### *Specific target organ systemic toxicity - repeated exposure*

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### *Aspiration hazard*

Regarding the available data the classification criteria are not fulfilled.

### Carcinogenicity

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or

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NTP  
equal to 0.1% is on OSHA's list of regulated carcinogens.  
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH  
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

## Further information

Systemic effects:

collapse, death

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

## Ingredients

sodium hydroxide

*Skin irritation*

Rabbit

Result: Causes burns.

(External MSDS)

*Eye irritation*

Rabbit

Result: Irreversible effects on the eye

(ECHA)

*Sensitization*

Patch test: human

Result: negative

(ECHA)

*Germ cell mutagenicity*

*Genotoxicity in vitro*

Mutagenicity (mammal cell test): micronucleus.

Result: negative

(Lit.)

Ames test

Result: negative

(IUCLID)

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## SECTION 12. Ecological information

### Ecotoxicity

No information available.

### Persistence and degradability

*Biodegradability*

The methods for determining the biological degradability are not applicable to inorganic substances.



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## Bioaccumulative potential

No information available.

## Mobility in soil

No information available.

### *Additional ecological information*

Harmful effect due to pH shift. Death of fish possible. Does not cause biological oxygen deficit.

Neutralization possible in waste water treatment plants.

Discharge into the environment must be avoided.

## Ingredients

sodium hydroxide

### *Toxicity to fish*

LC50 *Gambusia affinis* (Mosquito fish): 125 mg/l; 96 h (External MSDS)

### *Toxicity to daphnia and other aquatic invertebrates*

EC50 *Ceriodaphnia* (water flea): 40.4 mg/l; 48 h (ECHA)

### *Toxicity to bacteria*

EC50 *Photobacterium phosphoreum*: 22 mg/l; 15 min (External MSDS)

### *Biodegradability*

The methods for determining the biological degradability are not applicable to inorganic substances.

PBT/vPvB: Not applicable for inorganic substances

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## SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

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## SECTION 14. Transport information

### Land transport (DOT)

UN number	UN3316
Proper shipping name	CHEMICAL KIT
Class	9
Packing group	II
Environmentally hazardous	--

### Air transport (IATA)

UN number	UN 3316
Proper shipping name	CHEMICAL KIT
Class	9

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Packing group	II
Environmentally hazardous	--
Special precautions for user	no

## Sea transport (IMDG)

UN number	UN 3316
Proper shipping name	CHEMICAL KIT
Class	9
Packing group	II
Environmentally hazardous	--
Special precautions for user	yes
EmS	F-A S-P

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

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## SECTION 15. Regulatory information

### United States of America

#### SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

##### *Ingredients*

sodium hydroxide

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

##### *Ingredients*

sodium hydroxide

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

#### DEA List I

Not listed

#### DEA List II

Not listed

## US State Regulations

### Massachusetts Right To Know

##### *Ingredients*

sodium hydroxide

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## Pennsylvania Right To Know

### *Ingredients*

sodium hydroxide

## New Jersey Right To Know

### *Ingredients*

sodium hydroxide

## California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

## Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL

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## SECTION 16. Other information

### Training advice

Provide adequate information, instruction and training for operators.

### Labeling

#### *Hazard pictograms*



#### *Signal Word*

Danger

#### *Hazard Statements*

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

#### *Precautionary Statements*

##### Prevention

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

##### Response

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

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## Full text of H-Statements referred to under sections 2 and 3.

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

## Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

Revision Date01/04/2018

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The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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