



# SAFETY DATA SHEET

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

Revision Date 12/17/2015

Version 1.2

## SECTION 1. Identification

### Product identifier

Product number 188050  
Product name Water Standard 0.01 % Standard for coulometric Karl Fischer Titration  
1 g  $\pm$  0.1 mg H<sub>2</sub>O apura®

### 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 | 290 Concord Road, Billerica, MA 01821,  
United States of America | General Inquiries: +1-978-715-4321 |  
Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)

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

Flammable liquid, Category 3, H226  
Acute toxicity, Category 4, Inhalation, H332  
Acute toxicity, Category 4, Dermal, H312  
Skin irritation, Category 2, H315  
For the full text of the H-Statements mentioned in this Section, see Section 16.

### GHS-Labeling

*Hazard pictograms*



*Signal Word*  
Warning

*Hazard Statements*

H226 Flammable liquid and vapor.  
H312 + H332 Harmful in contact with skin or if inhaled.  
H315 Causes skin irritation.

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## *Precautionary Statements*

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

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

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.

P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

P322 Specific measures (see supplemental first aid instructions on this label).

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P403 + P235 Store in a well-ventilated place. Keep cool.

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

Mixture contains:  
xylene

### **Hazardous ingredients**

*Chemical Name (Concentration)*

CAS-No.

*xylene (mixture of isomers) ( $\geq 90\%$  -  $\leq 100\%$ )*

1330-20-7

Exact percentages are being withheld as a trade secret.

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

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

#### *Inhalation*

After inhalation: fresh air. If breathing stops: mouth-to-mouth breathing or artificial respiration.

Oxygen if necessary. Immediately call in physician.

#### *Skin contact*

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

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## *Eye contact*

After eye contact: rinse out with plenty of water.

## *Ingestion*

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Call a physician immediately. More severe effects if alcohol is consumed.

Never give anything by mouth to an unconscious person.

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

irritant effects

Dermatitis, Dizziness, narcosis, agitation, spasms, euphoria, Gastrointestinal disturbance, Headache, somnolence

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

Subsequently administer: activated charcoal (20 - 40 g in 10% slurry).

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

### **Extinguishing media**

#### *Suitable extinguishing media*

Carbon dioxide (CO<sub>2</sub>), Foam, Dry powder

#### *Unsuitable extinguishing media*

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

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

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air at elevated temperatures.

Pay attention to flashback.

Development of hazardous combustion gases or vapors possible in the event of fire.

### **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*

Remove container from danger zone and cool with water. 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: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

### **Environmental precautions**

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Do not let product enter drains. Risk of explosion.

## Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

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## SECTION 7. Handling and storage

### Precautions for safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapors/aerosols.

Observe label precautions.

### *Advice on protection against fire and explosion*

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

### Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Storage temperature: no restrictions.

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## SECTION 8. Exposure controls/personal protection

### Exposure limit(s)

#### Ingredients

Basis	Value	Threshold limits	Remarks
<i>xylene (mixture of isomers) 1330-20-7</i>			
ACGIH	Short Term Exposure Limit (STEL):	150 ppm	
	Time Weighted Average (TWA):	100 ppm	
NIOSH/GUIDE	Recommended exposure limit (REL):	100 ppm 435 mg/m <sup>3</sup>	
	Recommended exposure limit (REL):	100 ppm 435 mg/m <sup>3</sup>	
	Short Term Exposure Limit (STEL):	150 ppm 655 mg/m <sup>3</sup>	
	Short Term Exposure Limit (STEL):	150 ppm 655 mg/m <sup>3</sup>	
	Short Term Exposure Limit (STEL):	150 ppm 655 mg/m <sup>3</sup>	
	Recommended exposure limit (REL):	100 ppm 435 mg/m <sup>3</sup>	
OSHA_TRANS	PEL:	100 ppm 435 mg/m <sup>3</sup>	
Z1A	Short Term Exposure Limit (STEL):	150 ppm 655 mg/m <sup>3</sup>	
	Time Weighted Average (TWA):	100 ppm 435 mg/m <sup>3</sup>	

### Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

### 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

Safety glasses

### Hand protection

full contact:

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splash contact:

Glove material:	Viton (R)
Glove thickness:	0.70 mm
Break through time:	> 480 min

Glove material:	Nitrile rubber
Glove thickness:	0.40 mm
Break through time:	> 30 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 890 Vitoject® (full contact), KCL 730 Camatril® - Velours (splash contact).

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

*Other protective equipment:*

Flame retardant antistatic protective clothing.

*Respiratory protection*

required when vapors/aerosols are generated.

Recommended Filter type: Filter A (acc. to DIN 3181) for vapors of organic compounds

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are performed according to the instructions of the producer. These measures have to be properly documented.

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## SECTION 9. Physical and chemical properties

Physical state	liquid
Color	colorless
Odor	aromatic
Odor Threshold	No information available.
pH	No information available.
Melting point	-34 °C (xylene)
Boiling point/boiling range	137 °C (137 °C) at 1,013 hPa
Flash point	25 °C (25 °C)
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	1.7 %(V)

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Upper explosion limit	7.5 %(V)
Vapor pressure	10 hPa at 20 °C (20 °C)
Relative vapor density	3.7
Density	0.86 g/ml at 20 °C (20 °C)
Relative density	No information available.
Water solubility	0.2 g/l at 20 °C (20 °C)
Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	Distillable in an undecomposed state at normal pressure.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
Ignition temperature	ca. 465 °C (465 °C)

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## SECTION 10. Stability and reactivity

### Reactivity

Vapor/air-mixtures are explosive at intense warming.

### Chemical stability

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

### Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents, conc. sulfuric acid, sulfur

Risk of explosion with:

Nitric acid, uranium hexafluoride

### Conditions to avoid

Heating.

### Incompatible materials

rubber, various plastics, Light metals

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## 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

#### *Acute oral toxicity*

Symptoms: Gastrointestinal disturbance, Risk of aspiration upon vomiting., Pulmonary failure possible after aspiration of vomit.

#### *Acute inhalation toxicity*

Acute toxicity estimate: 11.1 mg/l; 4 h ; vapor

Calculation method

Symptoms: Inhalation may lead to the formation of oedemas in the respiratory tract.  
absorption

#### *Acute dermal toxicity*

Acute toxicity estimate : 1,128 mg/kg

Calculation method

absorption

#### *Skin irritation*

Mixture causes skin irritation.

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

#### *Eye irritation*

Possible damages: slight irritation

#### *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 ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No ingredient of this product present at levels greater than or



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ACGIH

equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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

After absorption of toxic quantities:

Systemic effects:

Headache, somnolence, Dizziness, euphoria, agitation, spasms, narcosis

Effect potentiated by: ethanol

Damage to:

Kidney, Central nervous system, Liver

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

## Ingredients

### *xylene (mixture of isomers)*

*Acute oral toxicity*

LD50 Rat: 3,523 mg/kg

Tested according to Directive 92/69/EEC.

*Skin irritation*

Rabbit

Result: Irritations

(IUCLID)

*Sensitization*

In animal experiments: Mouse

Result: Does not cause skin sensitization.

Method: OECD Test Guideline 429

*Germ cell mutagenicity*

*Genotoxicity in vivo*

Chromosome aberration test

Mouse

Result: negative

Method: OECD Test Guideline 478

*Genotoxicity in vitro*

Mutagenicity (mammal cell test): chromosome aberration.

Result: negative

(National Toxicology Program)

Mutagenicity (mammal cell test): micronucleus.

Result: negative

(IUCLID)

Ames test

Result: negative

(IUCLID)

*Carcinogenicity*

No indication of carcinogenic activity. (IUCLID)

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## SECTION 12. Ecological information

### Ecotoxicity

No information available.

### Persistence and degradability

No information available.

### Bioaccumulative potential

No information available.

### Mobility in soil

No information available.

### *Additional ecological information*

Discharge into the environment must be avoided.

### Ingredients

*xylene (mixture of isomers)*

#### *Distribution among environmental compartments*

Adsorption/Soil

log K<sub>oc</sub>: 2.29 - 2.49

(experimental)

Moderately mobile in soils

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

#### *Henry constant*

772 Pa·m<sup>3</sup>/mol

Method: (experimental)

(Lit.) Distribution preferentially in air.

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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 UN 1307  
Proper shipping name XYLENES SOLUTION  
Class 3  
Packing group III  
Environmentally hazardous --

**Air transport (IATA)**

UN number UN 1307  
Proper shipping name XYLENES SOLUTION  
Class 3  
Packing group III  
Environmentally hazardous --  
Special precautions for user no

**Sea transport (IMDG)**

UN number UN 1307  
Proper shipping name XYLENES SOLUTION  
Class 3  
Packing group III  
Environmentally hazardous --  
Special precautions for user yes  
EmS F-E S-D

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**SECTION 15. Regulatory information**

**United States of America**

**DEA List I**  
Not listed

**DEA List II**  
Not listed

**US State Regulations**

**Massachusetts Right To Know**

*Ingredients*  
xylene (mixture of isomers)  
ethylbenzene

**Pennsylvania Right To Know**

*Ingredients*  
xylene (mixture of isomers)  
ethylbenzene

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## New Jersey Right To Know

### *Ingredients*

xylene (mixture of isomers)

ethylbenzene

### 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*

Warning

#### *Hazard Statements*

H226 Flammable liquid and vapor.

H312 + H332 Harmful in contact with skin or if inhaled.

H315 Causes skin irritation.

#### *Precautionary Statements*

Prevention

P210 Keep away from heat.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P313 Get medical advice/ attention.

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

H226	Flammable liquid and vapor.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H332	Harmful if inhaled.

## 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 Date 12/17/2015

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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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