



# MATERIAL SAFETY DATA SHEET

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

Date of issue: 08/18/2013

Version 1.0

## SECTION 1. Identification

### Product identifier

Product number 800579  
Product name Ethyl methacrylate (stabilised) for synthesis

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

Identified uses Chemical for synthesis

### Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | SDS Phone Support: +1-978-715-1335 | 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 2, H225  
Eye irritation, Category 2, H319  
Specific target organ systemic toxicity - single exposure, Category 3, H335  
Skin irritation, Category 2, H315  
Skin sensitization, Category 1, H317

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

### GHS-Labeling

#### Hazard pictograms



#### Signal Word

Danger

#### Hazard Statements

H225 Highly flammable liquid and vapor.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.

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

Product number  
Product name

800579  
Ethyl methacrylate (stabilised) for synthesis

Version 1.0

H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

### *Precautionary Statements*

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P233 Keep container tightly closed.  
P280 Wear protective gloves.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
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.

### OSHA Hazards

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Other hazards

None known.

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## SECTION 3. Composition/information on ingredients

Formula	$\text{CH}_2=\text{C}(\text{CH}_3)\text{COOC}_2\text{H}_5$	$\text{C}_6\text{H}_{10}\text{O}_2$ (Hill)
CAS-No.	97-63-2	
Molar mass	114.14 g/mol	

### Hazardous ingredients

*Chemical Name ( Concentration)*

CAS-No.

*ethyl methacrylate ( >= 90 % - <= 100 % )*  
97-63-2

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## SECTION 4. First aid measures

### Description of first-aid measures

#### *Inhalation*

After inhalation: fresh air. Consult doctor if feeling unwell.

#### *Skin contact*

After skin contact: wash off with plenty of water. Remove contaminated clothing.

#### *Eye contact*

After eye contact: rinse out with plenty of water. Call in ophthalmologist.

#### *Ingestion*

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Never give anything by mouth to an unconscious person.

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

irritant effects, Allergic reactions, Cough, Shortness of breath, respiratory arrest, Dizziness, Unconsciousness, Nausea, Vomiting, cardiovascular disorders, Headache

## MATERIAL SAFETY DATA SHEET

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

Product number

800579

Version 1.0

Product name

Ethyl methacrylate (stabilised) for synthesis

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### 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*

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 material

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air at ambient 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*

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. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

### Environmental precautions

Do not empty into 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. Chemisorb®). Dispose of properly. Clean up affected area.

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## SECTION 7. Handling and storage

### Precautions for safe handling

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.

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

Product number

800579

Version 1.0

Product name

Ethyl methacrylate (stabilised) for synthesis

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## Conditions for safe storage, including any incompatibilities

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

Store at +15°C to +25°C (+59°F to +77°F).

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## SECTION 8. Exposure controls/personal protection

### Exposure limit(s)

Contains no substances with occupational exposure limit values.

### 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*

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.

#### *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

acrid

Odor Threshold

No information available.

pH

No information available.

Melting point

-61 - -59 °C

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Version 1.0

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Boiling point/boiling range	246 - 250 °F ( 119 - 121 °C) at 1,013 hPa
Flash point	64 °F ( 18 °C)
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	1.8 %(V)
Upper explosion limit	No information available.
Vapor pressure	21.3 hPa at 68 °F ( 20 °C)  88 hPa at 122 °F ( 50 °C)
Relative vapor density	No information available.
Relative density	0.913 g/cm <sup>3</sup> at 68 °F ( 20 °C)
Water solubility	5.1 g/l at 68 °F ( 20 °C)
Partition coefficient: n-octanol/water	log Pow: 1.94 Bioaccumulation is not expected (log Pow <1). (External MSDS)
Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	0.62 mPa.s at 68 °F ( 20 °C)
Explosive properties	No information available.
Ignition temperature	624 °F ( 329 °C)

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## SECTION 10. Stability and reactivity

### Reactivity

Vapors may form explosive mixture with air.

### Chemical stability

heat-sensitive  
Sensitive to air.

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Product number

800579

Version 1.0

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Ethyl methacrylate (stabilised) for synthesis

---

## *Stabilizer*

Hydroquinone monomethyl ether

## **Possibility of hazardous reactions**

polymerization initiators, Ammonia, Bases, Strong oxidizing agents, Amines, halogens, acids

## **Conditions to avoid**

Warming.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

## **Incompatible materials**

no information available

## **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*

LD50 rat: 14,600 mg/kg (RTECS)

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

#### *Acute inhalation toxicity*

LC50 rat: 55 mg/l; 4 h (External MSDS)

Symptoms: mucosal irritations, Cough, Shortness of breath, Lung edema, Possible damages:, damage of respiratory tract, The substance has delayed effects.

absorption

Irritating to respiratory system.

#### *Acute dermal toxicity*

LD50 rabbit: > 9,130 mg/kg

(External MSDS)

absorption

#### *Skin irritation*

rabbit

Result: Irritations

(External MSDS)

Causes skin irritation.

#### *Eye irritation*

rabbit

Result: slight irritation

(External MSDS) (Regulation (EC) No 1272/2008, Annex VI)

Causes serious eye irritation.

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Product number

800579

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Ethyl methacrylate (stabilised) for synthesis

---

### *Sensitization*

May cause an allergic skin reaction.

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

May cause respiratory irritation.

### *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 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:

After absorption of toxic quantities:

Nausea, Vomiting, Dizziness, cardiovascular disorders, Headache, Unconsciousness, respiratory arrest

Further data:

Handle in accordance with good industrial hygiene and safety practice.

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## **SECTION 12. Ecological information**

### **Ecotoxicity**

#### *Toxicity to fish*

LC50 fish: 100 - 576 mg/l; 96 h (External MSDS)

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

EC50 Daphnia: > 100 mg/l; 48 h (External MSDS)

#### *Toxicity to algae*

IC50 algae: > 100 mg/l; 72 h (External MSDS)

#### *Toxicity to bacteria*

EC50 activated sludge: 1,000 - 2,000 mg/l; 30 min (External MSDS)

### **Persistence and degradability**

# MATERIAL SAFETY DATA SHEET

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

Product number  
Product name

800579  
Ethyl methacrylate (stabilised) for synthesis

Version 1.0

## *Biodegradability*

79.1 %; 21 d  
Readily biodegradable.

## **Bioaccumulative potential**

*Partition coefficient: n-octanol/water*

log Pow: 1.94

Bioaccumulation is not expected (log Pow <1). (External MSDS)

## **Mobility in soil**

No information available.

## *Additional ecological information*

Discharge into the environment must be avoided.

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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 2277
Proper shipping name	ETHYL METHACRYLATE, STABILIZED
Class	3
Packing group	II
Environmentally hazardous	--

### **Air transport (IATA)**

UN number	UN 2277
Proper shipping name	ETHYL METHACRYLATE, STABILIZED
Class	3
Packing group	II
Environmentally hazardous	--
Special precautions for user	no

### **Sea transport (IMDG)**

UN number	UN 2277
Proper shipping name	ETHYL METHACRYLATE, STABILIZED
Class	3
Packing group	II
Environmentally hazardous	--
Special precautions for user	yes
EmS	F-E S-D



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## SECTION 15. Regulatory information

### United States of America

#### OSHA Hazards

Flammable Liquid

Skin irritant

Eye irritant

Skin sensitizer

Respiratory irritant

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

#### SARA 311/312 Hazards

Fire Hazard

Acute Health Hazard

#### SARA 313

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

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

#### Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

#### DEA List I

Not listed

#### DEA List II

Not listed

### US State Regulations

#### Massachusetts Right To Know

*Ingredients*

ethyl methacrylate

#### Pennsylvania Right To Know

*Ingredients*

ethyl methacrylate

#### New Jersey Right To Know

*Ingredients*

ethyl methacrylate

#### 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.

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800579  
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Version 1.0

---

## 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.

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

H225	Highly flammable liquid and vapor.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

### 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).

Date of issue:08/18/2013

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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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