

# SAFETY DATA SHEET

## 1. Identification of the substance or mixture and of the supplier

**GHS Product identifier:** เอ็ม-คลีนเนอร์  
M-CLEANER

**Other means of identification**  
**SDS number:** A0002578

**Recommended use of the chemical and restrictions on use**  
**Recommended use:** Not available.  
**Recommended restrictions:** Not known.

### Supplier's details

#### Manufacturer

Company Name: Kao Industrial (Thailand) Co.,Ltd.  
Address: O-NES Tower, 14th floor, 6, Soi Sukhumvit 6,  
Klongtoey Sub-district, Klongtoey District, Bangkok 10110, Thailand  
Telephone: +662-655-4433  
Fax: +662-655-4545  
Contact division: Chemical Business  
E-mail: -

**Emergency telephone number:** 66-2-655-4433

## 2. Hazard(s) identification

### GHS classification

#### Physical Hazards

Corrosive to metal Category 1

#### Health Hazards

Skin Corrosion/Irritation Category 1

Serious Eye Damage/Eye Irritation Category 1

Specific Target Organ Toxicity –  
Single Exposure Category 2 (Central nervous system, Respiratory organs,  
Liver)

Specific Target Organ Toxicity -  
Repeated Exposure Category 2 (Central nervous system)

#### Unknown toxicity - Health

Acute toxicity, dermal 6.5 %

Acute toxicity, inhalation, vapor 6.49 %

Acute toxicity, inhalation, dust or mist 14.01 %

#### Environmental Hazards

Acute hazards to the aquatic  
environment Category 3

#### Unknown toxicity - Environment

Acute hazards to the aquatic  
environment 0 %

Chronic hazards to the aquatic environment

0 %

## Label Elements

### Pictograms:



### Signal Word:

Danger

### Hazard Statement:

May be corrosive to metals.  
Causes severe skin burns and eye damage.  
May cause damage to organs.  
May cause damage to organs through prolonged or repeated exposure.  
Harmful to aquatic life.

## Precautionary Statements

### Prevention:

Keep only in original packaging. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

### Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Wash contaminated clothing before reuse. Immediately call a POISON CENTER/doctor. Absorb spillage to prevent material damage.

### Storage:

Store in corrosive resistant container with a resistant inner liner. Store locked up. Do not store with acids.

### Disposal:

Passed to a licensed waste contractor.

Other hazards which do not result in GHS classification:

None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Polyoxyethylene phenyl ether		Trade Secret	
2-Aminoethanol		141-43-5	5 - 10%
Lauryldimethylamine oxide		Trade Secret	

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**Trade secret information:** A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

#### Description of first aid measures

<b>Inhalation:</b>	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
<b>Skin Contact:</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
<b>Eye contact:</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
<b>Ingestion:</b>	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
<b>Personal Protection for First-aid Responders:</b>	No data available.
<b>Most important symptoms and effects, both acute and delayed</b>	
<b>Symptoms:</b>	No data available.
<b>Hazards:</b>	No data available.

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

<b>Treatment:</b>	Get medical attention if symptoms occur.
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### 5. Fire-fighting measures

#### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Powder, alcohol-resistant foam, water spray, carbon dioxide, sand

**Unsuitable extinguishing media:** No data available.

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

Produce irritating or toxic gases in a fire.

**Special protective equipment and precautions for fire-fighters**

**Special fire-fighting procedures:**

Keep away from sources of ignition and use appropriate extinguishing media. Fight fire from upwind position if possible. Product itself is non-combustible. Do not flow the materials causing adverse effects into the environment with effluent fire extinguishing agents.

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

Use goggles in combination with dust mask, and other protections as appropriate to situation. Risk of producing harmful gases such as carbon monoxide and nitrogen oxides. Avoid inhalation of smoke or gases.

## 6. Accidental release measures

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

Use goggles and protective gloves. Large spills : Remove person to safety. Ensure adequate ventilation.

**Accidental release measures:**

No data available.

**Methods and material for containment and cleaning up:**

Small spills: Absorb spills with sand, inert absorbent, waste cloth or sawdust. Then wipe up remainder in waste cloth. Large spills: Dike spills and dispose of in safe area. If necessary, after dilution with water, cautiously neutralize with dilute hydrochloric acid or dilute sulfuric acid, and weep or vacuum spills to containers, then flush with plenty of water.

**Environmental Precautions:**

Avoid release to the environment.

## 7. Handling and storage

### Handling

**Technical measures:**

Iron is apt to rust. Plant equipment should be treated with rust-resist. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Local/Total ventilation:**

Use an adequate ventilation.

**Safe handling advice:**

Avoid contact with skin and eyes. Use an adequate ventilation. Wash thoroughly after handling. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using the product. Avoid contact with acids.

**Contact avoidance measures:**

No data available.

### Storage

**Safe storage conditions:**

Keep container tightly closed. Store in a well-ventilated place. Store locked up. Do not store with acids.

**Safe packaging materials:**

No data available.

**8. Exposure controls/personal protection****Control Parameters****Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
2-Aminoethanol	TWA	3 ppm	Thailand. OELs (DLPW Notification Re: Occupational Exposure Limits for Hazardous Chemicals), as amended (08 2017)
2-Aminoethanol	TWA	3 ppm	US. ACGIH Threshold Limit Values, as amended (2008)
	STEL	6 ppm	US. ACGIH Threshold Limit Values, as amended (2008)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

**Appropriate Engineering Controls:**

Iron is apt to rust. Plant equipment should be treated with rust-resist. Use an adequate ventilation. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Individual protection measures, such as personal protective equipment****Eye/face protection:**

Safety goggles or Face shield

**Hand Protection:**

Gloves (alkali-resistant)

**Other:**

Alkali-resistant protective clothing

**Respiratory Protection:**

Use chemical cartridge respirator for alkalines, as appropriate to situation.

**Hygiene measures:**

No data available.

**9. Physical and chemical properties****Information on basic physical and chemical properties****Appearance****Physical state:**

Liquid

**Form:**

Liquid

**Color:**

Colorless

**Odor:**

Amine-like odor

**Odor Threshold:**

No data available.

**Freezing point:**

&lt; 68 °F/20 °C

**Boiling Point:**

No data available.

<b>Flammability:</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Explosive limit - upper:</b>	No data available.
<b>Explosive limit - lower:</b>	No data available.
<b>Flash Point:</b>	No data available.
<b>Self Ignition Temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	No data available.
<b>pH:</b>	11.7 (Undiluted solution)
<b>Viscosity</b>	
<b>Dynamic viscosity:</b>	No data available.
<b>Kinematic viscosity:</b>	No data available.
<b>Flow Time:</b>	No data available.
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	Soluble
<b>Solubility (other):</b>	Soluble in ethyl alcohol
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Relative density:</b>	No data available.
<b>Density:</b>	1.007 g/ml (77 °F/25 °C)
<b>Relative vapor density:</b>	No data available.
<b>Particle characteristics</b>	
<b>Particle Size:</b>	No data available.
<b>Particle Size Distribution:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Stable in general.
<b>Possibility of hazardous reactions:</b>	No data available.
<b>Conditions to avoid:</b>	No data available.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	No data available.

## 11. Toxicological information

### Acute toxicity (list all possible routes of exposure)

#### Oral

**Product:** ATEmix: 5,669 mg/kg

#### Dermal

**Product:** ATEmix 19,136 mg/kg

#### Inhalation

**Product:** Vapour: ATEmix220 mg/l  
 Dusts, mists and fumes: Classification not possible due to insufficient data.

### Skin Corrosion/Irritation

**Product:** No data available.

#### Components:

2-Aminoethanol Category 1B: (87)

Lauryldimethylamine oxide Category 2: (88)

### Serious Eye Damage/Eye Irritation

**Product:** No data available.

#### Components:

Polyoxyethylene phenyl ether Category 1: (88)

2-Aminoethanol Category 1: (1)

Lauryldimethylamine oxide Category 1: (99)

### Respiratory or Skin Sensitization

**Product:** Skin: Classification not possible due to insufficient data.  
 Respiratory: Classification not possible due to insufficient data.

### Carcinogenicity

**Product:** Classification not possible due to insufficient data.

### IARC:

No carcinogens present or none present in regulated quantities

### Germ Cell Mutagenicity

#### In vitro

**Product:** Classification not possible due to insufficient data.

#### In vivo

**Product:** Classification not possible due to insufficient data.

### Reproductive toxicity

**Product:** Classification not possible due to insufficient data.

### Specific Target Organ Toxicity - Single Exposure

**Product:** No data available.

**Components:**

2-Aminoethanol

Category 1: Central nervous system, Respiratory organs, Liver: (1)  
 Category 3: respiratory tract irritant: (1)

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:**

No data available.

**Components:**

2-Aminoethanol

Category 1: Central nervous system: (1)  
 Category 2: Respiratory organs: (1)

**Aspiration Hazard**

**Product:**

Classification not possible due to insufficient data.

**Other effects:**

No data available.

## 12. Ecological information

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:**

No data available.

**Aquatic Invertebrates**

**Product:**

No data available.

**Toxicity to Aquatic Plants**

**Product:**

No data available.

**Components:**

2-Aminoethanol

Category 2: (12)

Lauryldimethylamine oxide

Category 1: (99)

**Chronic hazards to the aquatic environment**

**Fish**

**Product:**

No data available.  
 Not classified based on available data of component(s).

**Aquatic Invertebrates**

**Product:**

No data available.  
 Not classified based on available data of component(s).

**Toxicity to Aquatic Plants**

**Product:**

No data available.

**Components:**

2-Aminoethanol

Category 3: (12)

Lauryldimethylamine oxide

Category 2: (8)

**Persistence and Degradability**

**Biodegradation**



<b>Product:</b>	No data available.
<b>BOD/COD Ratio</b>	
<b>Product:</b>	No data available.
<b>Bioaccumulative potential</b>	
<b>Bioconcentration Factor (BCF)</b>	
<b>Product:</b>	No data available.
<b>Partition Coefficient n-octanol / water (log Kow)</b>	
<b>Product:</b>	No data available.
<b>Mobility in soil:</b>	No data available.
<b>Other adverse effects:</b>	No data available.

### 13. Disposal considerations

<b>Disposal methods:</b>	Review "HANDLING AND STORAGE (Section 7)". Passed to a licensed waste contractor.
<b>Contaminated Packaging:</b>	No data available.

### 14. Transport information

#### IATA

UN Number:	UN 1760
UN Proper Shipping Name:	Corrosive liquid, n.o.s.(Ethanolamine)
Transport Hazard Class(es):	
Class:	8
Label(s):	8
Packing Group:	III
Excepted quantity	E1
Environmentally Hazardous:	No
Marine Pollutant:	No
Special precautions for user:	Not Regulated
Other information	
Passenger and cargo aircraft:	Allowed. 852
Cargo aircraft only:	Allowed. 856

#### IMDG

UN Number:	UN 1760
UN Proper Shipping Name:	CORROSIVE LIQUID, N.O.S.(Ethanolamine)
Transport Hazard Class(es)	
Class:	8
Label(s):	8
EmS No.:	F-A, S-B
Packing Group:	III
Limited quantity	5.00L
Excepted quantity	E1
Environmentally Hazardous:	No
Marine Pollutant:	No

Special precautions for user: Not Regulated

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

Not applicable for product as supplied.

**National Regulations**

**Domestic Standard:** In compliance with domestic law.

**Emergency Response Guide Number:** 154

**15. Regulatory information**

**Safety, health and environmental regulations specific for the product in question**

**Thailand. Reportable Hazardous Substances (Notification of Ministry of Industry Re: Bases respecting report of quantity of hazardous materials under Department of Industrial Works, B.E. 2547)**

Not Regulated

**Thailand. List of Hazardous Substances (Notification of Ministry of Industry Re: List of Hazardous Substances B.E. 2556, Annex: Schedules 1 - 6)**

Citric acid

**Inventory Status:**

<b>US TSCA Inventory:</b>	On or in compliance with the inventory
<b>Canada DSL Inventory List:</b>	On or in compliance with the inventory
<b>Australia AICS:</b>	On or in compliance with the inventory
<b>Korea Existing Chemicals Inv. (KECI):</b>	Contact us for information
<b>Japan (ENCS) List:</b>	On or in compliance with the inventory
<b>Japan ISHL Listing:</b>	On or in compliance with the inventory
<b>Philippines PICCS:</b>	On or in compliance with the inventory
<b>China Inv. Existing Chemical Substances:</b>	On or in compliance with the inventory
<b>REACH (EU):</b>	Contact us for information
<b>Taiwan Chemical Substance Inventory:</b>	On or in compliance with the inventory

## 16. Other information, including date of preparation or last revision

**Issue Date:** 27.09.2022

**Version #:** 1.0

**Source of information:** No data available.

**Further Information:** No data available.

**Disclaimer:** To the best of the manufacturer's knowledge, the information contained herein is accurate. However, neither the manufacturer, nor any of its affiliates, make any representations or warranties (expressed or implied), nor assumes any liability (including liability for any direct, incidental, consequential, or other damages) with respect to the accuracy or completeness of the information contained herein. Such information may be (without limitation) invalid if the specified material is used in combination with another, in a particular process, or under unusual conditions. Determination of suitability of any material for any given purpose is the sole responsibility of the user who assumes all risk and responsibility therefore. All materials may present unknown hazards and should be used with appropriate caution. The manufacturer cannot and does not guarantee that the hazards described herein are the only ones that exist. In the case of the product for fragrance, it's in accordance with the latest standard of IFRA within ordinary use. Contact with the supplier for detail information.

**Reference:**

- (1): GHS Classification Database, National Institute of Technology and Evaluation (NITE)
- (8): OECD SIDS
- (12): Results of Eco-toxicity tests of chemicals conducted by Ministry of the Environment in Japan
- (87): EU CLP Regulation Annex VI
- (88): ECHA-REACH Registered Substances Database
- (99): Internal study data