

SAFETY DATA SHEET

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

GHS Product identifier: CLEANTHROUGH A-29A

Other means of identification

SDS number: A0012814

Recommended use of the chemical and restrictions on use

Recommended use: Not available.
Recommended restrictions: Not known.

Supplier's details

Manufacturer

Company Name: Kao (Shanghai) Chemical Industries
Address: No.345, Haijin Road, Jinshan District, Shanghai, 201512, P.R.China
Telephone: +86-21-3790-6600
Fax: +86-21-3790-6505
Contact division: -
E-mail: -

Emergency telephone number: +65-3158 1074(For chemical emergencies only)

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 3 (Respiratory tract irritation.)
 Specific Target Organ Toxicity - Repeated Exposure Category 2 (Heart)

Unknown toxicity - Health

Acute toxicity, dermal 1.77 %
 Acute toxicity, inhalation, vapor 10.68 %
 Acute toxicity, inhalation, dust or mist 33.35 %

Label Elements

Pictograms:



Signal Word:	Danger
Hazard Statement:	May be corrosive to metals. Causes severe skin burns and eye damage. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.
Precautionary Statements	
Prevention:	Keep only in original packaging. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
Response:	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. 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. Get medical advice/attention if you feel unwell. Absorb spillage to prevent material damage.
Storage:	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner.
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 (%)
2-Aminoethanol	-	141-43-5	10 - 20%
Phosphonic acid compound	-	Trade Secret	
Alkyl carbitol	-	Trade Secret	
Organic acid, ammonium salt	-	Trade Secret	

4. First-aid measures

Description of first aid measures

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

Most important symptoms and effects, both acute and delayed

Symptoms:	No data available.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	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.
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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.
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:

Do not discharge into the drains, surface waters or ground water directly.

7. Handling and storage

Handling

Technical measures:

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

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. 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. Store in corrosive resistant container with a resistant inner liner.

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	STEL	6 ppm	15 mg/m3	SG OEL (2006)
2-Aminoethanol	TWA	3 ppm	7.5 mg/m3	SG OEL (2006)

Appropriate Engineering Controls:

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

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 to brown clear

Odor: Slightly amine-like odour

Odor Threshold: No data available.

Freezing point: -30 °C/-22 °F

Boiling Point: No data available.

Flammability: No data available.

Upper/lower limit on flammability or explosive limits

Explosive limit - upper: No data available.

Explosive limit - lower: No data available.

Flash Point: No data available.

Auto-ignition temperature: No data available.

Decomposition Temperature: No data available.

pH: 10.1
Method: Undiluted solution

Viscosity

Dynamic viscosity: 6.46 mPa.s at 25 °C/77 °F

Kinematic viscosity: No data available.

Flow Time: No data available.

Solubility(ies)

Solubility in Water: Soluble

Solubility (other): No data available.

Partition coefficient (n-octanol/water): No data available.

Vapor pressure: No data available.

Relative density: No data available.

Density: 1.0153 g/ml at 20 °C/68 °F
1.0087 g/ml at 30 °C/86 °F
1.0017 g/ml at 40 °C/104 °F

Relative vapor density: No data available.

Particle characteristics

Particle Size: No data available.
Particle Size Distribution: No data available.

10. Stability and reactivity

Reactivity: No data available.
Chemical Stability: Stable in general.
Possibility of hazardous reactions: No data available.
Conditions to avoid: Avoid contact with acids.
Incompatible Materials: No data available.
Hazardous Decomposition Products: No data available.

11. Toxicological information

Acute toxicity (list all possible routes of exposure)

Oral Product: ATEmix: 8,595.11 mg/kg
Dermal Product: ATEmix 8,681.93 mg/kg
Inhalation Product: Vapour: ATEmix77.55 mg/l
 Dust and mist: Classification not possible due to insufficient data.

Skin Corrosion/Irritation

Product: No data available.

Components:
 2-Aminoethanol Category 1B: (87)

Serious Eye Damage/Eye Irritation

Product: No data available.

Components:
 2-Aminoethanol Category 1: (21)
 Phosphonic acid Category 2: (88)
 compound
 Alkyl carbitol Category 2A: (88)
 Organic acid, ammonium Category 2A: (88)
 salt

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.

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 3: respiratory tract irritant: (87)

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Components:
 Phosphonic acid compound Category 2: Heart: (88)

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.

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).

Persistence and Degradability

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

13. Disposal considerations

Disposal methods:	Review "HANDLING AND STORAGE (Section 7)". Passed to a licensed waste contractor. Incinerate with little portions. Risk of producing harmful gases such as carbon monoxide and nitrogen oxides.
Contaminated Packaging:	No data available.

14. Transport information

IATA

UN Number:	UN 2491
UN Proper Shipping Name:	Ethanolamine solution
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 2491
UN Proper Shipping Name:	ETHANOLAMINE SOLUTION
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/legislation specific for the substance or mixture

Workplace Safety and Health Act and Workplace Safety and Health (General Provisions) Regulations:

This product is subjected to the SDS, labelling, PEL and other requirements in the Act/Regulations.

Fire Safety (Petroleum and Flammable Materials) Regulations

Not applicable

Inventory Status:

US TSCA Inventory:	On or in compliance with the inventory
Canada DSL Inventory List:	Not in compliance with the inventory
Australia AICS:	Not in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Philippines PICCS:	Not in compliance with the inventory
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
REACH (EU):	Contact us for information
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory

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

Issue Date:	2023.09.11
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:
(21): Estimation
(87): EU CLP Regulation Annex VI
(88): ECHA-REACH Registered Substances Database