Acetic acid

1. Identification of the substance/preparation and the company/undertaking

Product name : **Acetic acid**

supplier : Global Chemie ASCC Limited
140/31 Moo12 T.Rachathewa A.Bangplee Samutprakarn 10540
Telephone: +66 2 763 7782 - 4 (Auto)
Fax: + 66 2 763 7785
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Emergency Contact : 0819285826

2. Hazards identification

GHS Classification

Hazards	**Category**
Flammable liquid	Category 3
Acute oral toxicity	Category 5
Skin corrosion/irritation	Category 1A

Symbol(s)



Labeling

Signal Word Danger

Hazard Statements

H226 - Flammable liquid and vapor
H303 - May be harmful if swallowed
H314 - Causes severe skin burns and eye damage

Precautionary Statements

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P260 - Do not breathe dust/fume/gas/mist/spray/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P312 - Call a POISON PHYSICIAN/doctor/physician if you feel unwell.
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 or doctor/physician.

3. Composition/Information on ingredients

Components	CAS-No	Percent %
Acetic acid	64-19-7	min 99.85

4. First aid measures

General Information
Remove contaminated, soaked clothing immediately and dispose of safely. Pay attention to own protection. In any case show the physician the Safety Data Sheet.

Skin
Obtain medical attention. Wash off immediately with plenty of water for at least 15 minutes.

Eyes
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

Inhalation
Keep at rest. Move to fresh air. Call a physician immediately.

Ingestion
If conscious, drink plenty of water. If swallowed, do not induce vomiting - seek medical advice.

Notes to physician
Observe for latent pulmonary edema.

5. Fire-fighting measures

NFPA: **Health:** 3 **Flammability:** 2 **Instability:** 0

Suitable extinguishing media
Foam, Dry chemical, Carbon dioxide (CO2), Water spray

Extinguishing media which must not be used for safety reasons
Do not use a solid water stream as it may scatter and spread fire.

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases
Under conditions giving incomplete combustion, hazardous gases produced may consist of
carbon monoxide
carbon dioxide (CO2)
nitrogen oxides (NOx)
Combustion gases of organic materials must in principle be graded as inhalation poisons

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective suit.

Environmental precautions
Water used to fight fire runoff can cause environmental damage. Dike and collect water used to fight fire.

Other Information
Cool containers / tanks with water spray

6. Accidental release measures

Personal precautions
Avoid contact with the skin and the eyes. Keep away from heat and sources of ignition. Provide adequate ventilation.

Environmental precautions
Prevent further leakage or spillage. Do not discharge into the drains/surface waters/groundwater. Dike and collect water used to fight fire.

Methods for cleaning up
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Dispose of in accordance with local regulations.

Additional information
Consult trained personnel. Consider the information for "Personal Protection" in chapter 8 of this Safety Data Sheet.

7. Handling and storage

Handling

Hygiene measures
When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Advice on safe handling
Provide sufficient air exchange and/or exhaust in work rooms.

Incompatible products
Keep away from:, bases, amines

Protection - fire and explosion:
Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge. Ground and bond containers when transferring material. In case of fire, emergency cooling with water spray should be available.

Reduce the release of the substance or mixture to the environment
See Section 8: Environmental exposure controls

Temperature class
T1

Storage

Material storage
Keep in a dry, cool and well-ventilated place.

Incompatible products
Keep away from:, bases, amines

Technical measures/Storage conditions
Keep tightly closed in a dry, cool and well-ventilated place. Handle and open container with care.

German storage class
3A: Flammable liquids.

8. Exposure controls / personal protection

ACGIH Exposure Limits

Components	TWA
Acetic acid	10 PPM

Components	STEL
Acetic acid	15 PPM

Exposure controls

Engineering measures

General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Explosion-proof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

Personal protective equipment

General advice

Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist. Use only in an area equipped with a safety shower. Hold eye wash fountain available.

Hygiene measures

When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Respiratory protection	If aerosols or vapors are present, respiratory protection is required (gas filter E) .
Eye protection	Tightly fitting safety goggles. In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face. Equipment should conform to EN 166.
Skin protection	impervious clothing
Hand protection	Chemicals resistant gloves
Suitable material	Butyl-rubber
Type	Butoject (Company KCL) or comparable article; or refer to glove manufacturer's recommendation
Evaluation	according to EN 374: level 6
Material thickness	approx. 0.3 mm
Break through time	approx. 480 min
Suitable material	butyl-rubber
Type	Butoject (Company KCL) or comparable article; or refer to glove manufacturer's recommendation
Evaluation	according to EN 374: level 6
Material thickness	approx. 0.7 mm
Break through time	approx. 480 min

Environmental exposure controls
Do not discharge into the drains/surface waters/groundwater

Environmental Precautions
Should not be released into the environment

9. Physical and chemical properties

Appearance

Form	liquid
Color	colourless
Odor	pungent

Odor Threshold	24.3 ppm (gas in air)
Molecular Weight	60.05 g/mol
Flash point	39°C
Method	closed cup
Ignition temperature	463°C
Decomposition Temperature	not determined
Lower explosion limit	4.0 Vol. %
Upper explosion limit	19.9 Vol. %
Flammability (solids)	not applicable
Melting point/range	17°C
Boiling point/range	118°C
Density	1.045 g/ml @ 25°C
pH	2.4 @ 60 g/l
Viscosity	1.056 mPa*s @ 25°C
Vapor pressure	21 hPa @ 25°C

9. Physical and chemical properties

	77 hPa @ 50°C
Vapor density	2.07 (Air=1)
Evaporation Rate	0.97 (n-Butyl acetate = 1)
Water solubility	miscible
Solubility in other solvents	miscible with, Ethanol, Diethyl ether, Acetone, Benzene, soluble in, Chloroform
Partition coefficient (n-octanol/water)	-0.17 (measured)
Explosive Properties	not applicable based on consideration of the structure
Oxidizing Properties	not applicable based on consideration of the structure
Surface Tension	27.10 mN/m @ 25°C
Dissociation constant	4.76 @ 25°C

10. Stability and reactivity

Reactivity	Stable under normal conditions of handling, use and transportation.
Chemical Stability	No decomposition if used as directed. If heated to thermal decomposition the following decomposition products may occur depending on the conditions:. carbon oxides.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid any source of ignition. Avoid contact with heat, sparks, open flame, and static discharge.
Incompatible Materials	Keep away from:, amines, bases

11. Toxicological information

Acetic acid

Acute oral toxicity	LD50: 3310 mg/kg
Species	rat
Acute inhalation toxicity	LC50 (4h): > 40000 mg/m³
Species	rat
Skin corrosion/irritation	corrosive
Species	rabbit
Method	OECD 404
Serious eye damage/eye irritation	corrosive
Species	rabbit eye
Method	OECD 405
Skin Sensitization	nonsensitizer
in vitro Mutagenicity	Ames Test: negative - with and without metabolic activation - Method: OECD 471 In vitro Mammalian Chromosome aberrations in Chinese Hamster Cells: negative - with and without metabolic activation - Method: OECD 473

11. Toxicological information

in vivo Mutagenicity	In vivo Mammalian Erythrocyte Micronucleus Test: negative - Method: EU Method B.12 (Reference substance: Acetic anhydride)
Carcinogenic effects	No evidence of carcinogenicity
Developmental effects	No evidence of reproductive and developmental toxicity
Routes of exposure	oral gavage
Species	rabbit, rat, mouse
Method	EU Method B.31
	NOAEL: 1600 mg/kg bw/day
Type of study	Prenatal Developmental Toxicity Study
Repeated exposure	No adverse effects.
Routes of exposure	oral gavage
Species	rat, male
	NOAEL: 290 mg/kg bw/day
Type of study	8-week oral subchronic toxicity study

12. Ecological information

Acetic acid

Acute fish toxicity	LC50: > 300.82 mg/l (96h)
Species:	Oncorhynchus mykiss (rainbow trout)
Method	OECD 203
Acute daphnia toxicity	EC50: > 300.82 mg/l (48h)
Species:	Daphnia magna
Method	OECD 202
Toxicity to aquatic plants	EC50: > 300.82 mg/l (72h)
Species:	Skeletonema costatum
Method	ISO 10253
Toxicity to bacteria	EC3 (16h): 850 mg/l
Species:	Pseudomonas putida
Biodegradation	Readily biodegradable
Method	OECD 301 C
Other potential hazards	The substance does not meet the criteria for PBT / vPvB according to REACH, Annex XIII

13. Disposal considerations

Product information
Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal

Uncleaned empty packaging
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse

14. Transport information

US Department of Transportation

UN/NA Number:	UN 2789
Proper Shipping Name	Acetic acid, glacial
Hazard class	8
Subsidiary hazard	3
Packing Group	II
Reportable Quantity (RQ)	5000 lb/2270kg
Emergency Resp. Guide	132

ADR/RID

UN/ID No.	UN 2789
Proper Shipping Name	Acetic acid, glacial
Hazard Class	8
Subsidiary Risk	3
Classification Code	CF1
Packing group	II
Environmentally hazardous	no
Tunnel Restriction Code	(D/E)
Hazard Label(s)	8 + 3
Hazard Number	83

ADNR ADNR: Container and Tanker

UN/ID No.	UN 2789
Proper Shipping Name	Acetic acid, glacial
Hazard Class	8
Subsidiary Risk	3
Classification Code	CF1
Packing group	II
Environmentally hazardous	no
Hazard Labels	8 + 3

ICAO/IATA

UN-No.	UN 2789
Proper Shipping Name	Acetic acid, glacial
Hazard Class	8
Subsidiary Risk	3
Packing group	II
Environmentally hazardous	no
Hazard Labels	8 + 3

IMDG

UN/ID No.	UN 2789
Proper Shipping Name	Acetic acid, glacial

14. Transport information

Hazard Class	8
Subsidiary Risk	3
Packing group	II
Marine pollutant	no
Hazard Labels	8 + 3
EmS Code	F-E, S-C

15. Regulatory information

INTERNATIONAL REGULATIONS

This substance is classified as dangerous according to Chinese legislation

International Inventories

Listed on the chemical inventories of the following countries or qualifies for an exemption:
Australia (AICS)
Canada (DSL)
China (IECSC)
Europe (EINECS)
Japan (ENCS)
Japan (ISHL)
Korea (KECI)
New Zealand (NZIoC)
Philippines (PICCS)
United States (TSCA)

16. Other information

HMIS: Health: 3 Flammability: 2 Physical Hazard: 0

MSDS Distribution : The information in this document should be made available to all who may handle the product.

: Quality Control Department.
Global Chemie ASCC Limited

Disclaimer : The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty of guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.

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