

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

Ethanolamine

Manufacturer/supplier identification

Company: Guangdong Guanghua Sci-Tech Co.,Ltd

Address: No.295 Daxue Road,Shantou

PostCode:515000

E-mail: export@ghotech.com

Emergency telephone No.: +86-754-82515813.

Fax No.: +86-754-88221999

2. Hazards identification**Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Acute toxicity, Dermal (Category 4), H312

Skin corrosion (Sub-category 1B), H314

Serious eye damage (Category 1), H318

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Label elements

Pictogram



Signal word Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

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

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements

none

3. Composition/information on ingredients*Synonyms*

Triethanolamine



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CAS-No.: 141-43-5

M: 61.08g/mol

Molecular formula: C₂H₇NO

4. First aid measures

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

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

In case of eye contact

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

Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

5. Fire-fighting measures

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Special hazards arising from the substance or mixture

No data available.

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

Personal precautions

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.

For personal protection see section 8. Environmental precautions

Do not let product enter drains.

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 and neutralising material (e.g. Chemisorb® OH⁻, Merck Art No. 101596).

Dispose of properly. Clean up affected area.

7. Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Conditions for safe storage

Tightly closed.

Recommended storage temperature see product label.

8. Exposure controls/personal protection

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH

(US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. Physical and chemical properties

Form: liquid

Colour: Colorless

Odour: amine-like

pH value: 12,1 at 100 g/l at 20 °C

Melting point: 4 °C at 1.010 hPa

Boiling point: 167 °C at 1.010 hPa

Ignition temperature: not available

Flash point: 91 °C - closed cup

Autoignition temperature: not available

Explosion limits

lower: 17 %(V)

upper: 2.5 %(V)

Density : 1.02g/cm³

Bulk density: not available

Solubility in

water (20 °C) : Soluble in water

diluted acids (20 °C) : not available

Thermal decomposition: not available

10. Stability and reactivity**Chemical stability**

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

Stable under recommended storage conditions.

Conditions to avoid

Heat, flames and sparks.

Strong heating.

Materials to avoid

Strong acids and oxidizing agents, Iron, Copper, Brass, Rubber

Hazardous decomposition products

Other decomposition products - no data available

11. Toxicological information**Acute toxicity**

LD50 Oral - Rat - male and female - 1.089 mg/kg

(OECD Test Guideline 401)

Acute toxicity estimate Inhalation - 11,1 mg/l

(Expert judgment)

LD50 Dermal - Rabbit - 1.015 mg/kg

Remarks:

(RTECS)

Skin corrosion/irritation

Skin - Rabbit

Result: Corrosive - 4 h

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Corrosive

(OECD Test Guideline 405)

Causes serious eye damage.

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

Remarks:

(ECHA)

Germ cell mutagenicity

Ames test

Escherichia coli/Salmonella typhimurium

Result: negative

Chromosome aberration test in vitro

rat hepatocytes

Result: negative

In vitro mammalian cell gene mutation test

mouse lymphoma cells

Result: negative

In vitro mammalian cell gene mutation test

Chinese hamster fibroblasts

Result: negative

Remarks:

(ECHA)

OECD Test Guideline 474

Mouse - male and female - Bone marrow

Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

12. Ecological information

Toxicity

Toxicity to fish semi-static test LC50 - Cyprinus carpio (Carp) - 349 mg/l - 96 h

(Tested according to Directive 92/69/EEC.)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 65 mg/l - 48h

(Regulation (EC) No. 440/2008, Annex, C.2)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 2,8 mg/l - 72 h

(OECD Test Guideline 201)

static test NOEC - Pseudokirchneriella subcapitata (green algae) - 1 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria static test EC10 - activated sludge - > 1.000 mg/l - 30 min (OECD Test Guideline 209)

Persistence and degradability

no data available

Bioaccumulative potential

aerobic - Exposure time 21 d

Result: > 90 % - Readily biodegradable.

(OECD Test Guideline 301A)

Result: 90 - 100 % - Readily biodegradable.

(OECD Test Guideline 301F)

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

Biological effects:

Harmful effect due to pH shift.

When discharged properly, no impairments in the function of adapted biological wastewater treatment plants are to be expected.

Discharge into the environment must be avoided.

13. Disposal considerations



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Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Contaminated packaging

Dispose of as unused product.

14. Transport information

ADR/RID

UN-Number: 2491 Class: 8 Packing group: III

Proper shipping name: ETHANOLAMINE

IMDG

UN-Number: 2491 Class: 8 Packing group: III

Proper shipping name: ETHANOLAMINE

Marine pollutant: no

IATA

UN-Number: 2491 Class: 8 Packing group: III

Proper shipping name: ETHANOLAMINE

15. Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. Other information

General update.

Regional representation:

This information is given on the authorised Safety Data Sheet for your country.