

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name: : Tetraethoxysilane-40

Product Number: YAC-TEOS40

Brand: LANYACHEM

CAS-No.: 11099-06-2

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

Industrial and scientific research use.

1.3 Details of the supplier of the safety data sheet

Company: Nanjing Lanya Chemical Co., Ltd.

Telephone : +86 25 83315620

Fax : +86 25 83315629

1.4 Emergency telephone

Emergency Phone #: +86 25 83315620

2. HAZARDS IDENTIFICATION

2.1 GHS Classification

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flammable liquids (Category 3)

Acute toxicity, Inhalation (Category 4)

Eye irritation (Category 2)

Specific target organ toxicity - single exposure (Category 3)

Flammable. Harmful by inhalation. Irritating to eyes and respiratory system

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

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.



Hazard symbol(s)

R-phrases(s)

R10 Flammable.

R20 Harmful by inhalation.

R36/37 Irritating to eyes and respiratory system.

S-phrase(s) none

2.3 Other hazards which do not result in classification

No data available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Substance / Mixture : Substance.

CAS-No. 11099-06-2

Concentration >=99%

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.3 Further information

Under fire conditions, material may decompose to form flammable and/or explosive mixtures in air. Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations.

Vapours can accumulate in low areas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Store under nitrogen. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Moisture sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

No data available.

8.2 Exposure controls

No data available.

Personal protective equipment

Eye protection

Safety glasses.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

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

Hygiene measures

Choose body protection according to the amount and concentration of the dangerous substance at the work Place.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Appearance	Color: Colorless Form: Clear liquid
Odor	No data available
pH	No data available
Melting point	No data available
Boiling point	168 °C 760 mmHg
Flash point	37 °C closed cup
Ignition temperature	230 °C
Refractive Index	1.383 at 25 °C
Lower explosion limit	1.3%(v)
Upper explosion limit	23%(v)
Vapour pressure	10hPa at 20 °C
Density	1.0600 g/cm ³ at 20 °C
Relative vapour density	7.19 (Air = 1.0)
Water solubility	No data available

10. STABILITY AND REACTIVITY**10.1 Storage stability**

May decompose on exposure to moist air or water. Stable under recommended storage conditions.

10.2 Conditions to avoid

Heat, flames and sparks.

10.3 Materials to avoid

Strong oxidizing agents, Strong acids.

10.4 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, silicon oxides.

11. TOXICOLOGICAL INFORMATION**11.1 Acute toxicity**

Oral: LD50 - Rat 6270mg/kg

Dermal: LD50: - Rabbit 5878mg/kg.

11.2 Irritation and corrosion

Skin: Rabbit - skin irritation, 24 h

Eyes: Rabbit - Mild eye irritation, 24 h

11.3 Sensitisation

No data available.

11.4 Chronic exposure

No data available.

11.5 Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

11.6 Potential Health Effects

Inhalation Harmful if inhaled. Causes respiratory tract irritation.

Eyes Causes eye irritation.

Ingestion May be harmful if swallowed.

Target Organs Liver, Kidney, Lungs, Blood, Eyes.

11.7 Additional Information

RTECS: VV9450000.

12. ECOLOGICAL INFORMATION**12.1 Elimination information**

No data available.

12.2 Ecotoxicity effects

No data available.

12.3 Further information on ecology

No data available.

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**14.1 UN number**

ADR/RID: 1993 IMDG: 1993 IATA: 1993

14.2 UN proper shipping name

ADR/RID: Tetraethyl silicate.

IMDG: Tetraethyl silicate.

IATA: Tetraethyl silicate.

14.3 Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

Marine pollutant: No.

14.6 Special precautions for user

No data available.

15. REGULATORY INFORMATION

No data available.

16. OTHER INFORMATION

Further information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.