

3-(Triethoxysilyl) Propyl Succinic Anhydride 94%

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: 3-(Triethoxysilyl) Propyl Succinic Anhydride 94%
CAS Number: 93642-68-3
EC Number: 297-566-6

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

Product use: Chemicals used in research and development, analysis and production

1.3 Details of the supplier of the safety data sheet

Company name: East Harbour Group Ltd
20 Clough Road, Severalls Industrial Park
Colchester, Essex, CO4 9QS
United Kingdom

Telephone: +44 (0) 333 242 0100
Email: info@eastharbourgroup.com

1.4 Emergency telephone number

Telephone: 0800 246 1274

Section 2: Hazardous identification

2.1 Classification of the substance or mixture

Product Definition: Substance
Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)
H319: Serious eye damage/eye irritation – Category 2

2.2 Label elements

Hazard Pictograms



Signal word

Warning

Hazard statement

H319 – Causes serious eye irritation

Precautionary statements

P280

Wear eye or face protection

P264

Wash hands thoroughly after handling

P305+P351+P338

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

P337 + P313

3-(Triethoxysilyl) Propyl Succinic Anhydride 94%

If eye irritation persists: Get medical attention

Hazardous ingredients dihydro-3-[3-(triethoxysilyl) propyl]furan-2,5-dione

Supplemental label elements Not applicable

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not applicable

2.3 Other hazards

Other hazards which do not result in classification

None known

See section 11 for more detailed information on health effects and symptoms

Section 3: Composition/information on ingredients

Substance/Mixture Mono-constituent substance

Product/ingredient name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
3-(Triethoxysilyl) propyl succinic anhydride	EC: 297-566-6 CAS: 93642-68-3	100	Eye Irrit. 2, H319 See section 16 for the full text of the H statements declared above	[A]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

[A] Constituent

[B] Impurity

[C] Stabilizing additive

Occupational exposure limits, if available, are listed in Section 8.

Section 4: First aid measures

4.1 Description of first aid measures

Eye Contact

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention

3-(Triethoxysilyl) Propyl Succinic Anhydride 94%

Skin contact	immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband.
Protection of first aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
4.2 Most important symptoms and effects, both acute and delayed	
Potential acute health effects	
Eye contact	Causes serious eye irritation
Over-exposure signs/symptoms	
Eye contact	Adverse symptoms may include the following: Pain or irritation Watering redness
4.3 Indication of any immediate medical attention and special treatment needed	
Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	No specific treatment.

Section 5: Fire-fighting measures

5.1 Fire Fighting Media and Instructions:

Suitable extinguishing media: Use dry chemical or CO₂ or sand.

Unsuitable extinguishing media: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture: Combustible. In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products: Decomposition products may include the following materials
Carbon dioxide
Carbon monoxide

3-(Triethoxysilyl) Propyl Succinic Anhydride 94%

Metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk-through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in 'For non-emergency personnel'.

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g., sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections

See section 1 for emergency contact information.

See section 8 for information on appropriate personal protective equipment.

See section 13 for additional waste treatment information.

3-(Triethoxysilyl) Propyl Succinic Anhydride 94%

Section 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin, and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Keep under inert atmosphere

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations	Not available
Industrial sector specific solutions	Not available

Section 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known

Recommended monitoring procedure

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres -

3-(Triethoxysilyl) Propyl Succinic Anhydride 94%

General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived effect levels

No DELs available

Predicted effect concentrations

No PECs available

8.2 Exposure controls /

Appropriate engineering controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measure

Wash hands, forearms, and face thoroughly after handling chemical products before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification.

3-(Triethoxysilyl) Propyl Succinic Anhydride 94%

Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Clear liquid, slightly viscous
Physical State	Liquid
Colour	Not available
Odor	Not available
Odor Threshold	Not available
pH	Not available
Melting Point/Freezing Point	-30°C
Initial Boiling Point and Boiling Range	152 °C [0,3 mm Hg]
Flash Point	Closed cup: >100°C
Evaporation Rate	Not available
Flammability (solid, gas)	Not available
• Burning time	Not applicable
• Burning rate	Not applicable
Upper/Lower Flammability or Explosive Limits	Not available
Vapor Pressure	Not available
Vapor Density	Not available
Density	1,08 g/cm ³
Solubility(ies)	Not available
Solubility at room temperature	Reacts [H ₂ O]
Partition Coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidizing properties	Not available

9.2 Other Information

No additional information

3-(Triethoxysilyl) Propyl Succinic Anhydride 94%

Section 10: Stability and Reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical Stability

Moisture-reactive material. Handle under inert gas.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Exposure to heat and moisture

10.5 Incompatible materials

Water, alkalis, oxidizing agents, and acids

10.6 Hazardous decomposition products

Ethanol

Section 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Conclusion/Summary Not available.

Irritation/Corrosion

Conclusion/Summary Not available.

Sensitizer

Conclusion/Summary Not available.

Mutagenicity

Conclusion/Summary Not available.

Carcinogenicity

Conclusion/Summary Not available.

Reproductive toxicity

Conclusion/Summary Not available.

Teratogenicity

Conclusion/Summary Not available.

Information on the likely routes of exposure

Not available.

Potential acute health effects

Inhalation No known significant effects or critical hazards.

Skin contact No known significant effects or critical hazards.

Eye contact Causes serious eye irritation.

Ingestion No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Skin contact No specific data.

Ingestion No specific data.

Inhalation No specific data.

Eye contact Adverse symptoms may include the following:

Pain or irritation

Watering

Redness

3-(Triethoxysilyl) Propyl Succinic Anhydride 94%

Delayed and immediate effects and also chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects	Not available
Potential delayed effects	Not available

Long term exposure

Potential immediate effects	Not available
Potential delayed effects	Not available
Potential chronic health effects	Not available
Conclusion/Summary	Not available
General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards
Mutagenicity	No known significant effects or critical hazards
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.
Other information	Not available

Section 12: Ecological Information

12.1 Toxicity

Conclusion/Summary	Not available.
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12.2 Persistence and degradability

Conclusion/Summary	Not available.
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12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (KOC)	Not available.
Mobility	Not available.

12.5 Results of PBT and vPvB assessment

PBT	No.
vPvB	Not available.

12.6 Other adverse effects

No known significant effects or critical hazards.

Section 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product - Method of disposal

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste

3-(Triethoxysilyl) Propyl Succinic Anhydride 94%

disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste

The classification of the product may meet the criteria for a hazardous waste.

Packaging -Methods of disposal

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions

This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14: Transport Information

	ADR/RID	ADN	IMDG	IATA
14.1 UN Number	Not regulated	Not regulated	Not regulated	Not regulated
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No	No	No	No
14.6 Special precautions for user	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Additional information	-	-	-	-

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not available

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

3-(Triethoxysilyl) Propyl Succinic Anhydride 94%

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization Substances of very high concern
None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles – Not applicable

Other EU regulations

Europe inventory This material is listed or exempted.

Black List Chemicals

Priority List Chemicals Not listed

Industrial emissions Not listed

(Integrated pollution prevention and control) - Air

Industrial emissions Not listed

(Integrated pollution prevention and control) – Water

Chemical Weapons Not applicable.

Convention List Schedule I Chemicals

Chemical Weapons Not applicable.

Convention List Schedule II Chemicals

Chemical Weapons Not applicable.

Convention List Schedule III Chemicals

15.2 Chemical Safety Assessment

Not available.

Section 16: Other Information

Abbreviations and acronyms

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Eye irrit. 2 H319	Expert judgment

Full text of abbreviated H Statements H319 Causes serious eye irritation.

Full text of classifications [CLP/GHS] Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

Notice to reader

The above information is based on our present state of knowledge. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application.