

**SECTION 1: Identification**

<b>GHS Product identifier:</b> TES Sodium Salt Buffer (TES-Na)
<b>Other means of identification:</b> TES Na TES sodium salt Tris乙磺酸鈉鹽
<b>Recommended use of the chemical and restrictions on use:</b> Basic Intermediates, Laboratory chemicals, Synthesis of substances Not for food or drug use, for laboratory use only.
<b>Supplier's details:</b> TAIWAN HOPAX CHEMS. MFG. CO.,LTD No. 28 Huadong Rd., Daliao Dist., Kaohsiung City 831134 TAIWAN-ROC
<b>Emergency phone number:</b> +886-7-7887600 / +886-7-7872892 Ext 314

**SECTION 2: Hazard identification**

<b>Classification of the substance or mixture:</b> Not a hazardous substance or mixture according to GHS.
<b>GHS label elements, including precautionary statements:</b> Not a hazardous substance or mixture
<b>Other hazards which do not result in classification:</b> Not available

**SECTION 3: Composition/information on ingredients**
**Substances**

<b>Chemical identity of the substance:</b> TES Sodium Salt Buffer (TES-Na)
<b>Common name(s), synonym(s) of the substance:</b> N-[Tris(hydroxymethyl)methyl]-2-aminoethanesulfonicacid sodium salt 2-(tris(Hydroxymethyl)methylamino)-1-ethanesulfonic acid, sodium salt
<b>CAS number and other unique identifiers for the substance:</b> 70331-82-7
<b>Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance:</b> Not available
<b>Concentration (% of the content) :</b> $\geq 99\%$

**Mixtures**

化學性質：		
Chemical identity	Identification number (CAS No.)	Concentration or concentration ranges of all hazardous ingredients
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**SECTION 4: First-aid measures**
**Description of necessary first-aid measures**

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**Skin:** Wash off with soap and plenty of water.

**Eye:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. If possible drink milk afterwards.

**Most important symptoms/effects, acute and delayed:** No data available

**Indication of immediate medical attention and special treatment needed, if necessary:** Treat symptomatically.

**SECTION 5: Fire-fighting measures**

**Suitable extinguishing media:** Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Alcohol resistant foam. Water mist may be used to cool closed containers.

**Specific hazards arising from the chemical:** Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Sulfur oxides. Nitrogen oxides (NO<sub>x</sub>). Sodium oxides.

**Special protective actions for fire-fighters:** As in any fire, wear self-contained breathing apparatus (SCBA) pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

**SECTION 6: Accidental release measures**
**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel:** Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

**Environmental precautions:** Do not let product enter drains.

**Methods and materials for containment and cleaning up:** Sweep up and shovel into suitable containers for disposal. Remove all sources of ignition.

**SECTION 7: Handling and storage**
**Precautions for safe handling:**

Avoid dust formation. Avoid contact with skin and eyes. Avoid contact with skin and clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Avoid breathing vapors or mists. Do not ingest. If swallowed then seek immediate medical assistance. Wash thoroughly after handling. Keep away from open flames, hot surfaces and sources of ignition.

**Conditions for safe storage, including any incompatibilities:**

Store in original, properly-sealed container in ambient conditions for temperature and humidity. Avoid exposure of material to direct sunlight. Isolate from any source of heat or ignition.

**SECTION 8: Exposure controls/personal protection**

**Control parameters:** None

**Appropriate engineering controls:** Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures, such as personal protective equipment (PPE):**

**Eye/face protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin protection:** Wear appropriate protective gloves and clothing to prevent skin exposure.

**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).

**Thermal hazards:** No data available

**Hygiene Measures :** Handle in accordance with good industrial hygiene and safety practice.

**SECTION 9: Physical and chemical properties**

(a) Appearance (physical state, colour etc)	White Solid
(b) Odour	No data available
(c) Odour threshold	No data available
(d) pH	No data available
(e) Melting point/freezing point	No data available
(f) Initial boiling point and boiling range	No data available
(g) Flash point	No data available
(h) Evaporation rate	No data available
(i) Flammability (solid, gas)	No data available
(j) Upper/lower flammability or explosive limits	No data available
(k) Vapour pressure	No data available
(l) Vapour density	No data available
(m) Relative density	No data available
(n) Solubility(ies)	350 g/L at 20°C
(o) Partition coefficient: n-octanol/water	No data available
(p) Auto-ignition temperature	No data available
(q) Decomposition temperature	No data available
(r) Viscosity	No data available

**SECTION 10: Stability and reactivity**

<b>Reactivity:</b> No data available
<b>Chemical stability:</b> Stable under normal conditions
<b>Possibility of hazardous reactions:</b> No data available
<b>Conditions to avoid:</b> No data available
<b>Incompatible materials:</b> Strong oxidizing agents
<b>Hazardous decomposition products:</b> Thermal decomposition can lead to release of irritating gases and vapors, carbon dioxide (CO <sub>2</sub> ), nitrogen oxides, sulfur oxides and sodium oxides.

**SECTION 11: Toxicological information**

- (a) **Acute toxicity:**No data available  
 (b) **Skin corrosion/irritation:**No data available  
 (c) **Serious eye damage/irritation:**No data available  
 (d) **Respiratory or skin sensitization:**No data available  
 (e) **Germ cell mutagenicity:**No data available  
 (f) **Carcinogenicity:**No data available  
 (g) **Reproductive toxicity:**No data available  
 (h) **STOT-single exposure:**No data available  
 (i) **STOT-repeated exposure:**No data available  
 (j) **Aspiration hazard:**No data available

**Information on the likely routes of exposure:**

**Ingestion (swallowing) :**No data available

**Inhalation:**No data available

**Skin/Eye:**No data available

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available

**Delayed and immediate effects and also chronic effects from short and long term exposure:** No data available

**Numerical measures of toxicity (such as acute toxicity estimates):** No data available

**Interactive effects:** No data available

**Where specific chemical data are not available:** No data available

**Mixtures**

**Mixture versus ingredient information:**N/A

**Other information:** N/A

**SECTION 12: Ecological information**

**Toxicity:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**Other adverse effects:** No data available

**SECTION 13: Disposal considerations**

**Disposal methods:**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

**SECTION 14: Transport information**

<b>UN Number:</b> N/A
<b>UN Proper Shipping Name:</b> N/A
<b>Transport hazard class(es):</b> N/A
<b>Packing group, if applicable:</b> N/A
<b>Environmental hazards:</b> Marine Pollutant ( Yes/No ) : No
<b>Special precautions for user:</b> No data available

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question:

**Inventory of Existing Chemical Substances in China (IECSC)**

Substance is not listed.

**Chemical Substance Inventory in Taiwan, China (TCSI)**

Substance is listed.

**Japan Existing and New Chemical Substances Inventory (ENCS)**

Substance is not listed.

**Korea Existing Chemicals List (KECL)**

Substance is not listed.

**Korea Priority Existing Chemicals List (PEC)**

Substance is not listed.

**TSCA Chemical Substance Inventory**

Substance is listed.

**EU EINECS/ELINCS/NLP**

Substance is listed.

**New Zealand Inventory of Chemicals (NZIoC)**

Substance is not listed.

**Philippine Inventory of Chemicals and Chemical Substances (PICCS)**

Substance is not listed.

**Australian Inventory of Industrial Chemicals (AIIC)**

Substance is not listed.

**Canada Domestic Substances List (DSL)**

Substance is not listed.

**Canada Non-domestic Substances List (NDSL)**

Substance is listed.

**Thailand Existing Chemicals Inventory (TECI)**

Substance is not listed.

### 15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

<b>The date of preparation of the latest revision of the SDS:</b> 2026/01/18	Version:2.1
<b>A key/legend to abbreviations and acronyms used in the SDS:</b> N/A	
<b>Key literature references and sources for data used to compile the SDS:</b> European Chemicals Agency	

### Disclaimer

This SDS was prepared sincerely on the basis of the information we could obtain. However, any warranty shall

not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information, but also the laws and regulations of the organization, area and country where the product is to be used, which shall be given the first priority.

The product is supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added hereafter. If the product is to be used beyond the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The product must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set upon each user's own responsibility.

**End of Safety Data Sheet**