

**SECTION 1: Identification**

<b>GHS Product identifier:</b> 3-(Benzothiazolyl-2-thio) propyl sulfonic acid Sodium Salt
<b>Other means of identification:</b> ZPS Sodium 3-(benzothiazol-2-ylthio)-1-propanesulfonate
<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> Classification according to Regulation (EC) No 1272/2008 Skin corrosion/irritation (Category 2), H315 Serious eye damage/eye irritation (Category 2A), H319 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
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**GHS label elements, including precautionary statements:**

Labelling according Regulation (EC) No 1272/2008

Pictogram



GHS07

**Signal word :** Warning

**Hazard statement :**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

**Precautionary statements :**

Prevention

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

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ eye protection/ face protection.

Response

P302 + P352 IF ON SKIN: Wash with plenty of water.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor 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.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards which do not result in classification:**Not applicable

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

**Substances**

**Chemical identity of the substance:** 3-(Benzothiazolyl-2-thio) propyl sulfonic acid Sodium Salt

**Common name(s), synonym(s) of the substance:**

ZPS

Sodium 3-(benzothiazol-2-ylthio)-1-propanesulfonate

**CAS number and other unique identifiers for the substance:** 49625-94-7

**Impurities and stabilizing additives which are themselves classified and which contribute to the classification of**

**the substance:**N/A

**Concentration (% of the content) :**  $\geq 98 \%$

**Mixtures**

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.

Consult a physician.

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

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

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms/effects, acute and delayed:** The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

**Indication of immediate medical attention and special treatment needed, if necessary:** N/A

**SECTION 5: Fire-fighting measures**

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Specific hazards arising from the chemical:**

Carbon oxides

Nitrogen oxides (NO<sub>x</sub>)

Sulfur oxides

Sodium oxides

**Special protective actions for fire-fighters:** Wear self-contained breathing apparatus for firefighting if necessary.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

**For non-emergency personnel:** N/A

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

**Methods and materials for containment and cleaning up:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

Advice on safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. For precautions see section 2.2.

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

**Storage conditions**

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.

Storage class

Storage class (TRGS 510): 11: Combustible Solids

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

**Control parameters:**

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

**Appropriate engineering controls:**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday

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

**Eye/face protection:** Safety glasses with side-shields conforming to EN166 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 Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection:** Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection:** For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle

respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. 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.

**SECTION 9: Physical and chemical properties**

(a) Appearance (physical state, colour etc)	White to Light yellow powder
(b) Odour	No data available
(c) Odour threshold	No data available
(d) pH	No data available
(e) Melting point/freezing point	Melting point/range: $\geq 320$ °C - dec.
(f) Initial boiling point and boiling range	No data available
(g) Flash point	110 °C - closed cup
(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)	No data available
(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> In the event of fire: see section 5

**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

<b>(g) Reproductive toxicity:</b> No data available
<b>(h) STOT-single exposure:</b> No data available
<b>(i) STOT-repeated exposure:</b> No data available
<b>(j) Aspiration hazard:</b> No data available
<b>Information on the likely routes of exposure:</b>
<b>Ingestion (swallowing) :</b> No data available
<b>Inhalation:</b> No data available
<b>Skin/Eye:</b> No data available
<b>Symptoms related to the physical, chemical and toxicological characteristics:</b> No data available
<b>Delayed and immediate effects and also chronic effects from short and long term exposure:</b> No data available
<b>Numerical measures of toxicity (such as acute toxicity estimates):</b> No data available
<b>Interactive effects:</b> No data available
<b>Where specific chemical data are not available:</b> No data available

**Mixtures**

<b>Mixture versus ingredient information:</b> N/A
<b>Other information:</b> N/A

**SECTION 12: Ecological information**

<b>Toxicity:</b> No data available
<b>Persistence and degradability:</b> No data available
<b>Bioaccumulative potential:</b> No data available
<b>Mobility in soil:</b> No data available
<b>Other adverse effects:</b> No data available

**SECTION 13: Disposal considerations**

<b>Disposal methods:</b>
<b>Product</b>
The chemical must be disposed or recycled in accordance with Waste Disposal Act. See <a href="http://www.epa.gov.tw">www.epa.gov.tw</a> for the information of chemical waste disposal companies and their contacts. Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See <a href="http://www.retrologistik.com">www.retrologistik.com</a> for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

**SECTION 14: Transport information**

<b>UN Number:</b>
ADR/RID, IMDG, IATA-DGR: Not applicable
<b>UN Proper Shipping Name:</b>
ADR/RID, IMDG, IATA-DGR: Not dangerous goods
<b>Transport hazard class(es):</b>

<b>ADR/RID, IMDG, IATA-DGR:</b> Not applicable
<b>Packing group, if applicable:</b> ADR/RID, IMDG, IATA-DGR: Not applicable
<b>Environmental hazards:</b> Marine Pollutant ( Yes/No ) : No
<b>Special precautions for user:</b> Not applicable

### SECTION 15: Regulatory information

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

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

Substance is listed.

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

Substance is listed.

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

Substance is listed.

**Korea Existing Chemicals List (KECL)**

Substance is 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 listed.

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

Substance is not listed.

**Thailand Existing Chemicals Inventory (TECI)**

Substance is listed.

**Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

**U.S. California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):**



**WARNING:** This product can expose you to chemicals including 1,3-PS, which is known to the State of California to cause cancer. For more information, go to [www.P65Warning.ca.gov](http://www.P65Warning.ca.gov).

**SECTION 16: Other information**

<b>The date of preparation of the latest revision of the SDS:</b> 2026/01/24	<b>Version:</b> 3.1
<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**