

**SECTION 1. Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name:**

3-(N-Morpholino)-Propanesulfonic Acid Sodium Salt

**Synonyms:**

3-(4-Morpholino)propanesulfonic acid sodium salt

4-Morpholinepropanesulfonic acid sodium salt

MOPS.Na

MOPS Sodium Salt

Sodium 3-Morpholinopropanesulfonate

**CAS Number:**

71119-22-7

**EC number:**

428-420-3

**Registration number:**

01-2119915786-27-XXXX

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

Use in formulation

Use as intermediate (industrial)

Use as buffer in industrial sites

Reagent for development and research

**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

TAIWAN HOPAX CHEMS. MFG. CO., LTD

No. 28, Huadong Road, Daliao District, Kaohsiung City 831134

TAIWAN R.O.C.

**Further information obtainable from:**

samantha@hopax.com.tw

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**1.4 Emergency telephone number:**

Manufacturer: HOPAX: +886-788-7600 Ext 314

**SECTION 2. Hazards Identification****2.1 Chemicals Classification :**

Not a hazardous substance according to the CLP Regulation N°1272/2008 and REACH Regulation N°1907/2006/EC.

**2.2 Label elements****Labeling** : -**Symbol** : -**Signal word** : -**Hazard statement** :

Not a hazardous substance

**Precautionary statements** :

Do not eat, drink or use tobacco when using this product.

Wear respiratory protection, protective gloves and eye/face protection.

Use only in a well-ventilated area.

Wash thoroughly after handling.

**2.3 Other hazards** :

No further relevant information available

**SECTION 3. Composition / Information on ingredients****3.1 Substances****Chinese and English name:**

3-(N-嗎啡林)丙磺酸鈉鹽/3-(N-Morpholino)-Propanesulfonic Acid Sodium Salt

**Formula:** C<sub>7</sub>H<sub>14</sub>NO<sub>4</sub>SNa**Molecular weight:** 231.20 g/mol**Chemical Abstract Service No. (CAS No.):** 71119-22-7**The hazardous ingredient (%of the content)** : -**SECTION 4. FIRST AID MEASURES****4.1 Description of first-aid measures****General advice:**

If symptoms persist, call a physician.

**If inhaled:**

Remove victim to fresh air, keep at rest in a position comfortable for breathing and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Get medical advice/attention if you feel unwell.

**In case of skin contact:**

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Wash contaminated clothing before reuse. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**In case of eye contact:**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.

**If swallowed:**

Rinse mouth. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

**4.3 Indication of any immediate medical attention and special treatment needed**

Show this safety data sheet to the doctor in attendance.

Note to physicians: Treat symptomatically.

**SECTION 5. FIRE FIGHTING MEASURES**

**5.1 Extinguishing media**

**Suitable extinguishing agents:**

**Suitable extinguishing media:**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media:**

For this substance/mixture no limitations of extinguishing agents are given.

**5.2 Special hazards arising from the substance or mixture**

Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Sulfur oxides  
Sodium oxides  
Combustible

**Fire may cause evolution of:**

Development of hazardous combustion and irritating gases, vapours or toxic fumes possible in the event of fire.

**5.3 Advice for firefighters**

Fire-extinguishing work is done from the windward, and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place.

In case of fire in the surroundings: Remove movable containers if safe to do so.

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**National Fire Protection Association (NFPA):**

Health	Flammability	Instability	Physical hazards
1	1	0	N/A

**5.4 Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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

**Personal precautions:**

Avoid dust formation.  
Avoid breathing vapors, mist or gas.

**Protective equipment:**

Evacuate the danger area, observe emergency procedures, and consult an expert.  
Do not take action without suitable protective clothing - see section 8 of SDS.

**Emergency procedures:**

Keep people away from and windward of spill/leak.  
Evacuate the danger area, observe emergency procedures, and consult an expert.  
Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

**6.2 Environmental precautions**

Prevent entry into waterways, sewers, basements or confined areas.  
Do not flush into surface water or sanitary sewer system.  
Prevent further leakage or spillage if safe to do so.  
Prevent product from entering drains.  
See Section 12 for additional Ecological Information.

**6.3 Methods and material for containment and cleaning up****Methods for containment:**

Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:**

Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Clean up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Soak up with inert absorbent material. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

**6.4 Reference to other sections**

Reference to other sections: For disposal see section 13.

**SECTION 7. HANDLING AND STORAGE****7.1 Precautions for safe handling**

Ensure adequate ventilation, especially in confined areas.  
Use with local exhaust ventilation or in a chemical fume hood, with air supplied by an independent system.  
Use personal protective equipment/face protection as required.  
Avoid ingestion and inhalation dust/fume/gas/mist/vapors/spray.  
Avoid the formation of dust and aerosols.  
Avoid contact with skin, eyes or clothing.  
Keep away from sources of ignition.  
Avoid prolonged or repeated exposure.  
Wash hands and face thoroughly after handling.

**7.2 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.

**Incompatible materials:**

Store away from incompatible materials such as oxidizing agents.

**7.3 Specific end use(s)**

Refer to employer's COSHH risk assessment.

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION****8.1 Control parameters**

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

## 8.2 Exposure controls

### Appropriate engineering controls:

General industrial hygiene practice.

Install a closed system local exhaust or fume hood as possible so that workers should not be exposed directly.

Engineering Controls Safety Showers

Eye wash stations

## 8.3 Personal protective equipment

### Eye/Face protection:

Use equipment for eye/face protection tested and approved under appropriate government standards such as NIOSH (US), EN 166 (EU) or OSHA's eye and face protection regulations in 29 CFR 910.133.

### Skin and body protection:

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use.

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003).

Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

Wear appropriate protective clothing and protective boots, if the situation requires.

### Respiratory protection:

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations.

Respiratory protection must be provided in accordance with current local regulations.

### Hygiene measures and considerations:

Handle in accordance with good industrial hygiene and safety practice.

When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

Regular cleaning of equipment, work area and clothing is recommended.

### Control of environmental exposure:

Do not let product enter drains.

## SECTION 9. PHYSICAL/CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### General Information:

Appearance:

Form: Crystal - Powder

Color: White

Odor: No data available

Odor Threshold: No data available

pH-value (1% aq): 9.0 ~ 10.0

Change in condition

Melting point: 220.9 °C - Decomposition

Freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: No data available

Flammability (solid, gas):	The product is not flammable. - Flammability (solids)
Upper/Lower flammability or Explosive limits:	No data available
Vapor pressure:	< 0.1 hPa (at 20 °C)
Vapor density:	No data available
Relative density:	No data available
Water solubility:	523 g/l (at 20 °C)
Partition coefficient: n-octanol/water	log Pow: < -3 at 21 °C - Bioaccumulation is not expected.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	Non explosion
Oxidizing properties:	No data available
Density:	1.41 g/cm <sup>3</sup>
Partition coefficient:	-3

**9.2 Other information**

Not applicable

**SECTION 10. STABILITY AND REACTIVITY**

**10.1 Reactivity**

The following applies in general to flammable organic substances and mixtures:  
In correspondingly fine distribution, a dust explosion potential may generally be assumed when whirled up.

**10.2 Chemical stability**

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

**10.3 Possibility of hazardous reactions**

Violent reactions possible with: Strong oxidizing agents  
None under normal processing.

**10.4 Conditions to avoid**

Avoid dust formation.  
Incompatible products.  
Conditions to avoid Extremes of temperature and direct sunlight.  
Heat, moisture.

**10.5 Incompatible materials**

Strong acids/alkalis, strong oxidising/reducing agents.

**10.6 Hazardous decomposition products**

In combustion may emit toxic fumes.  
Hazardous decomposition products formed under fire conditions. Avoid exposure to Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Sulfur oxides.

**10.7 Hazardous polymerization**

Hazardous polymerization does not occur.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

**Acute toxicity:**

LD50 Oral - Rat - male and female - > 2,000 mg/kg  
(Directive 67/548/EEC, Annex V, B.1.)

**Skin corrosion/irritation:**

Skin - Rabbit

Result: No skin irritation - 4 h

(Directive 67/548/EEC, Annex V, B.4.)

**Serious eye damage/eye irritation:**

Eyes - Rabbit

Result: No eye irritation

(Directive 67/548/EEC, Annex V, B.5.)

**Respiratory or skin sensitization:**

Maximization Test - Guinea pig

Result: Negative

(OECD Test Guideline 406)

**Germ cell mutagenicity:**

Ames test

Escherichia coli/Salmonella typhimurium

Result: Negative

(ECHA)

**Delayed and immediate effects as well as chronic effects from short and long-term exposure:**

Chronic Toxicity: Avoid repeated exposure.

Irritation: May cause irritation

Sensitization: No information available

**Carcinogenicity:**

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
3-(N-Morpholino)-Propanesulfonic Acid Sodium Salt	71119-22-7	Not listed	Not listed	Not listed	Not listed	Not listed

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

**Reproductive toxicity:**

No data available

**Specific target organ toxicity – single exposure:**

No data available

**Specific target organ toxicity – repeated exposure:**

No data available

**Aspiration hazard:**

No data available

**11.2 Additional Information**

**Symptoms / Routes of exposure:**

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: There may be irritation of the throat.  
Skin: There may be mild irritation at the site of contact.  
Eyes: There may be irritation and redness.  
Delayed / Immediate Effects: No known symptoms.

RTECS No.: Not available

Exposure may cause irritation of eyes, mucous membranes, upper respiratory tract and skin.

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

Hazardous properties cannot be excluded.

Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

**Toxicity to daphnia and other aquatic invertebrates:**

LC50 - Daphnia magna (Water flea) – > 100 mg/l - 48 h  
(Directive 67/548/EEC, Annex V, C.2.)

**Toxicity to algae static test:**

ErC50 - Desmodesmus subspicatus (green algae) – > 100 mg/l - 72 h  
(OECD Test Guideline 201)

**Static test NOEC**

Desmodesmus subspicatus (green algae) – > 100 mg/l - 72 h  
(OECD Test Guideline 201)

### 12.2 Persistence and degradability

**Biodegradability:**

Result: ca.80 % - Not readily biodegradable.  
(Regulation (EC) No. 440/2008, Annex, C.4-E)

### 12.3 Bio-accumulative potential

No bioaccumulation is to be expected ( $\log Pow \leq 4$ )

### 12.4 Mobility in soil

Will likely be mobile in the environment due to its water solubility.

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and/or toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Ecotoxicity

Do not empty into drains.

May cause long lasting harmful effects to aquatic life, 100% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

### 12.7 Other adverse effects

No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Product:**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

**Contaminated packaging:**

Do not reuse container.

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with all federal, state and local regulations.

**Recommendation:**

Disposal must be made according to official regulations.

**SECTION 14. TRANSPORT INFORMATION****International Regulations****IATA-DGR**

Not regulated as a dangerous good

UN/ID No. : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Labels : Not applicable

Packing instruction (cargo aircraft): Not applicable

Packing instruction (passenger aircraft): Not applicable

**IMDG-Code**

Not regulated as a dangerous good

UN number : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Labels : Not applicable

EmS Code : Not applicable

Marine pollutant : no

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Special precautions for user**

Remarks : Not classified as dangerous in the meaning of transport regulations.

**SECTION 15. REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****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 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 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.

**Labelling according to Regulation (EC) No 1272/2008**

Not applicable

**Hazard pictograms**

Not applicable

**Signal word**

Not applicable

**Hazard statements**

Not applicable

**15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

**15.3 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**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Abbreviations and acronyms:**

NOAEL: Non Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 DNEL: Derived No-Effect Level (REACH)  
 PNEC: Predicted No-Effect Concentration (REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative

**According to Regulation 1907/2006 (EC), Article 31**

<b>Date that the SDS was prepared:</b>	2026/01/13
<b>Version:</b>	7.2

**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**