

SECTION 1: Identification

GHS Product identifier: 4-(N-Morpholino)butanesulfonic acid
Other means of identification: MOBS
Recommended use of the chemical and restrictions on use: Basic Intermediates, Laboratory chemicals, Synthesis of substances Not for food or drug use, for laboratory use only.
Supplier's details: TAIWAN HOPAX CHEMS. MFG. CO.,LTD No. 28 Huadong Rd., Daliao Dist., Kaohsiung City 831 TAIWAN-ROC
Emergency phone number: +886-7-7887600 / +886-7-7872892 Ext 314

SECTION 2: Hazard identification

Classification of the substance or mixture: 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 to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS07

Signal word

Warning

Hazard statement(s)

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statement(s)

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 available

SECTION 3: Composition/information on ingredients

Substances

Chemical identity of the substance: 4-(N-Morpholino)butanesulfonic acid / 4-(N-嗎啉基)丁磺酸

Common name(s), synonym(s) of the substance: MOBS
CAS number and other unique identifiers for the substance: 115724-21-5
Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance: Not available
Concentration (% of the content) : \leq 100%

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 General advice Consult a physician. Show this material safety data sheet to the doctor in attendance. Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. 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: No data available
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SECTION 5: Fire-fighting measures

Suitable extinguishing media: Water Foam Carbon dioxide (CO ₂) Dry powder Specific hazards arising from the chemical: Carbon oxides Nitrogen oxides (NO _x) Sulphur 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 For non-emergency personnel: Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8. Environmental precautions: Do not let product enter drains. Methods and materials for containment and cleaning up: Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions
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(see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7: Handling and storage

Precautions for safe handling:

For precautions see section 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.

SECTION 8: Exposure controls/personal protection

Control parameters:

Ingredients with workplace control parameters
Contains no substances with occupational exposure limit values.

Appropriate engineering controls:

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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

Eye/face protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

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.

Body Protection:

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

(a) Appearance (physical state, colour etc)	Whit 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)	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

Reactivity: No data available

Chemical stability: Stable under normal conditions

Possibility of hazardous reactions: No data available

Conditions to avoid: No data available

Incompatible materials: Strong acids, Peroxides

Hazardous decomposition products: 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

(g) Reproductive toxicity:No data available

(h) STOT-single exposure: Inhalation - May cause respiratory irritation.

(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
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Other adverse effects: No data available

SECTION 13: Disposal considerations
Disposal methods:

Product

The chemical must be disposed or recycled in accordance with Waste Disposal Act. See www.epa.gov.tw 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 www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14: Transport information
UN Number:

ADR, ADN, IMDG, IATA: Not Applicable

UN Proper Shipping Name:

ADR/RID, IMDG, IATA-DGR: Not dangerous goods

Transport hazard class(es):

ADR/RID, IMDG, IATA-DGR: Not Applicable

Packing group, if applicable:

ADR/RID, IMDG, IATA-DGR: N Not Applicable

Environmental hazards: Marine Pollutant (Yes/No) : No

Special precautions for user: No data available

SECTION 15: Regulatory information
Safety, health and environmental regulations/legislation specific for the substance or mixture
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)

<p>Substance is not listed.</p> <p>Korea Priority Existing Chemicals List (PEC) Substance is not listed.</p> <p>TSCA Chemical Substance Inventory Substance is not listed.</p> <p>EU EINECS/ELINCS/NLP Substance is not listed.</p> <p>New Zealand Inventory of Chemicals (NZIoC) Substance is not listed.</p> <p>Philippine Inventory of Chemicals and Chemical Substances (PICCS) Substance is not listed.</p> <p>Australian Inventory of Industrial Chemicals (AIIC) Substance is not listed.</p> <p>Canada Domestic Substances List (DSL) Substance is not listed.</p> <p>Canada Non-domestic Substances List (NDSL) Substance is not listed.</p> <p>Thailand Existing Chemicals Inventory (TECI) Substance is not listed.</p> <p>Chemical safety assessment A Chemical Safety Assessment has been carried out.</p>

SECTION 16: Other information

The date of preparation of the latest revision of the SDS: 2026/01/13	Version:2.1
A key/legend to abbreviations and acronyms used in the SDS: N/A	
Key literature references and sources for data used to compile the SDS: 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