

【Material Safety Data Sheet】

Product Name: Electrical towel warmer
Company Identification: Ningbo Weishi Electrical Technology Co., Ltd
Address: Building No.1, No. 86-88, Weishanbei Road, West Industry Area, Guanhaiwei Town, Cixi Ningbo
Post Code:315315
Emergency Response Phone: 0574-63680017

Part 1: Chemical name

1.1 Chinese name of chemical: ethylene glycol
1.2 Chemical English name: ethylene glycol
1.3 Chinese name 2: Glycol
1.4 Molecular formula: $C_2H_6O_2$
1.5 Molecular weight: 62.07

Part 2: Ingredients/composition information

2.1 Main ingredient: ethylene glycol
2.2 Content:
2.3 CAS No. 107-21-1

Part 3: Overview of Risks

3.1 Hazard category:
3.2 Invasion method:
3.3 Health hazards: There are no reports of acute or chronic poisoning of this product in China. Acute poisoning abroad is mostly caused by mistaking. Inhalation poisoning is manifested by repeated episodes of fainting, nystagmus, and lymphocytosis. Acute poisoning after oral administration is divided into three stages: the first stage is mainly central nervous system symptoms, the milder is like ethanol poisoning, the severer quickly produces coma, convulsions, and finally death; the second stage, cardiopulmonary symptoms are obvious, severe cases may have lungs Edema, bronchial pneumonia, heart failure; the third stage is mainly manifested as renal failure in different degrees. The lethal dose of this product is estimated to be 1.4ml/kg (1.56g/kg), that is, the total amount is 70~84ml.

Part 4: First aid measures

4.1 Skin contact: Take off contaminated clothing and rinse with plenty of running water.
4.2 Eye contact: Lift the eyelid and rinse with running water or normal saline. Seek medical attention.
4.3 Inhalation: quickly leave the scene to a place with fresh air. Keep the airway unobstructed. If breathing is difficult, give oxygen. If breathing stops, give artificial respiration immediately. Seek medical attention.
4.4 Ingestion: Drink enough warm water to induce vomiting. Stomach lavage, drainage. Seek medical attention.

Part 5: Fire Fighting Measures

5.1 Hazardous characteristics: it is combustible in case of open flames and high heat. It can react with oxidants. In case of high heat, the internal pressure of the container will increase and there is a danger of cracking and explosion.

5.2 Hazardous combustion products: carbon monoxide, carbon dioxide

5.3 Fire fighting method: Move the container from the fire scene to an open place as much as possible. Spray water to keep the fire container cool until the end of the fire extinguishing. If the container in the fire scene has changed color or produces sound from the safety relief device, it must be evacuated immediately. Extinguishing agent: water mist, foam, dry powder, carbon dioxide, sandy soil.

Part 6: Emergency Response to Leakage

6.1 Emergency treatment: quickly evacuate personnel from the contaminated area to a safe area, isolate them, and strictly restrict access. Cut off the fire source. It is recommended that emergency personnel wear self-priming filter gas masks (full face masks) and general work clothes. Cut off the source of leakage as much as possible. Prevent entry into restricted spaces such as sewers and flood drains. Small amount of leakage: absorb with sand, vermiculite or other inert materials. It can also be scrubbed with an emulsion made of a non-flammable dispersant, and the lotion is diluted and put into the waste water system. A large number of leaks: build a dike or dig a pit for storage. Use a pump to transfer to a tanker or a special collector for recycling or transport to a waste disposal site for disposal.

Part 7: Handling and storage

7.1 Operation precautions: airtight operation, provide good natural ventilation conditions. Operators must undergo special training and strictly abide by the operating procedures. It is recommended that operators wear self-priming filter gas masks (half masks), chemical safety glasses, and chemical-proof gloves. Keep away from fire and heat sources, and smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. Prevent the vapor from leaking into the air in the workplace. Avoid contact with oxidants and acids. When handling, load and unload with care to keep the package intact and prevent spills. Equipped with corresponding types and quantities of fire-fighting equipment and leakage emergency treatment equipment. Empty containers may be harmful residues.

7.2 Precautions for storage: Store in a cool, ventilated warehouse. Keep away from fire and heat sources. It should be stored separately from oxidants and acids, and avoid mixed storage. Equipped with the appropriate variety and quantity of fire equipment. The storage area should be equipped with leakage emergency treatment equipment and suitable storage materials.

Part 8: Exposure Control/Personal Protection

8.1 Occupational exposure limits:

8.2 Monitoring method: gas chromatography

8.3 Engineering control: provide good natural ventilation conditions

8.4 Respiratory system protection: Generally, special protection is not required. Self-

priming filter type gas mask (half mask) can be worn when exposed to high concentrations.

8.5 Eye protection: When the concentration in the air is high, wear chemical safety protective glasses.

8.6 Body protection: wear general work protective clothing.

8.7 Hand protection: Wear chemical-proof gloves.

8.8 Other protection: After work, take a shower and change clothes. Avoid long-term repeated contact. Regular physical examinations.

Part 9: Physical and Chemical Properties

9.1 Appearance and properties: colorless, odorless, sweet, viscous liquid.

9.2 Melting point (°C): -13.2

9.3 Boiling point (°C): 197.5

9.4 Relative density of liquid caustic soda: 1.11

9.5 Vapor density (air=1): 2.14

9.6 Saturated vapor pressure (kPa): 6.21 (20°C)

9.7 Heat of combustion (kJ/mol): 281.9

9.8 Critical temperature (°C): Not available

9.9 Critical pressure (MPa): no data

9.10 Octanol/water partition coefficient: not available

9.11 Ignition temperature (°C): Not available

9.12 Flash point (°C): 110

9.13 Upper explosion limit %(V/V): 15.3

9.14 Lower explosion limit %(V/V): 3.2

9.15 Solubility: miscible with water, miscible with ethanol, ether, etc.

9.16 Main uses: used to make resins, plasticizers, synthetic fibers, cosmetics and explosives, as well as solvents and antifreeze preparations for engines

Part 10: Stability and Reactivity

10.1 Stability:

10.2 Contraindications: strong oxidants, strong acids.

10.3 Conditions to avoid contact:

10.4 Polymerization hazards:

10.5 Decomposition products:

Part 11: Toxicological Information

11.1 Acute toxicity: LD50: 8000 ~ 15300 mg/kg (oral for mice); 5900 ~ 13400 mg/kg (oral for rats); LC50: no data

11.2 Subacute and chronic toxicity: No data.

11.3 Irritation: No data

Part 12: Ecological Information

12.1 Ecotoxicity: No data.

12.2 Biodegradability: Not available.

12.3 Non-biodegradability: Not available.

12.4 Bioaccumulation or bioaccumulation: No data.

12.5 Other harmful effects: no data

Part 13: Disposal

13.1 Nature of waste:

13.2 Waste disposal method: Dispose by incineration.

13.3 Precautions for disposal:

Part 14: Transportation Information

14.1 Number of dangerous goods:

14.2 UN number:

14.3 Packaging mark:

14.4 Packing category: Z01

14.5 Packaging method: no information

14.6 Precautions for transportation: Before transportation, check whether the packaging container is complete and sealed. During transportation, ensure that the container does not leak, collapse, fall, or be damaged. Mixed shipment and transportation with oxidants, acids, etc. is strictly prohibited. During shipping, it should be isolated from the engine room, power source, fire source and other parts. When transporting by road, follow the prescribed route.

14.7 According to IMO IMDG code, the article is not restricted to IMO IMDG code.

Part 15: Regulatory Information

Regulatory information: Regulations on the Safety Management of Chemical Hazardous Materials (promulgated by the State Council on February 17, 1987), Implementation Rules for the Regulations on the Safety Management of Chemical Hazardous Materials (Hua Laofa [1992] No. 677), Regulations on the Safe Use of Chemicals in Workplaces ([1996] The Ministry of Labor issued No. 423) and other regulations, which have made corresponding regulations for the safe use, production, storage, transportation, loading and unloading of chemical dangerous goods; the hygienic standard of ethylene glycol in the air of the workshop (GB 16190-1996) stipulates the workshop The maximum allowable concentration of the substance in the air and its detection method.

Part 16: Other Information

16.1 References: None.