Jinhe Sodium Hydrosulfite Factory Co., Ltd.

Sodium Hydrosulfite (Sodium Dithionite)

Section I Production and Company Identification

Product Name: Sodium Hydrosulfite

Synonyms: Sodium dithionite; Dithionous acid, disodium salt

Chemical Formula: Na₂S₂O₄ CAS Number: 7775-14-6

UN. NO.: 1384 IMO Class: 4.2 EMS No. F-A, S-J

Hazard Rating:

Health 3
Fire 1
Reactivity 2

Other

0:Least, 1:Slight, 2:Moderate, 3:High, 4: Extreme

Manufacturer: Jinhe Sodium Hydrosulfite Factory Co., Ltd.

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MSDS Code: Q/SJGZ-03-25-2003

Validity Date: first issued on Jan.1, 2002, this edition revised on Apr. 10th, 2003

National Emergency Phone: 86-532-3889090, 3889191

Section II Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Sodium Hydrosulfite	7775-14-6	85%, 88%, 90%	Yes

Section **Ⅲ** Hazards Identification

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Dangerous Class: 4.2 flammable solid. Contact ways: inhalation and Ingestion.

Health Effect: irritative to eyes, respiratory tract, skin and mucous membranes.

Environment harm: release sulfur dioxide when burn and decompose.

Explosion Danger: spontaneously combust at 250°C, and ignite when act with oxidant, decompose and release heat with little water and exposed in the air, cause smoke and will probably explode.

Section IV First Aid Measure

Skin contact: Remove contaminated clothing and shoes. Wash the skin with soap and large quantity of water thoroughly,

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion: drink plenty of water, induce vomiting and get medical attention.

Section V Fire Fighting Measure

Strong reducing agent, combust spontaneously at 250°C, May ignite in the presence of combustible materials or heated. Will be oxided when exposed in the air and release large quantity of heat until combust in contact with water, acid or oxidant, and release toxic sulfur dioxide.

Harmful result from burning: sulfur dioxide.

Fire Fighting Method and Media: Close off the polluted area, separate fired package and not fired package, and flush with large of water, (any other media can only perish the external flame, can't stop sodium hydrosulfite from decomposition, the internal combustion is still going on, only enough water can make sodium hydrosulfite dissolve and fight the fire entirely.) Avoid polluting drinking water source and farmland. Meanwhile, check the remained package, move the heat package to a ventilated place and make it cool naturally. Fire fighting media: large quantity of water.

Note: The fireman should wear full protective clothing, and gas mask, (No.7 yellow canister) or self-contained breathing apparatus with full facepiece operated in positive pressure mode. Fight fire down the wind. When move the packages, Be careful and prevent the lid fly out to hurt people. Flushing large quantity of sodium hydrosulfite with little water is prohibited.

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Section VI Accidental Release Measure

All the people move to the safe place, Close off the polluted area, free in and out is prohibited. Wear appropriate personal protective equipment. Don't touch the spills directly. Spills Disposal: Clean up spills carefully, do not disperse dust into the air. Use clean and non-sparking tools and equipment. Store the spills in a dry, clean and closed container or put in large of water, make them resolved, diluted for further treatment. Flush the damped, smoking and combusting spills with large quantity of water. Avoid the flushed water pollute the drinking water and farmland.

Section VI Handling and Storage

Handling: operators must be trained, and operate according to Operation Guide. Smoking is prohibited in the working place, wear protective clothing, gloves and goggles. If the work site is dusty, wear dust defence mask. Wear self-contained breathing apparatus when necessary, (No.7 yellow canister).

Store: in a cool, dry, ventilated warehouses away from sources of heat, moisture and incompatibilities. Keep the relative humidity under 75%. Prevent sunshine directly. Keep in a tightly closed container. Protect from physical damage, or contact of water or steam. Don't store with oxidant, acids or other flammable goods. Check the temperature and condition frequently. Be careful when move. The warehouse must be equipped with dry carbon dioxide fire extinguisher, hooks, fire hydrant and gas mask, (No.7 yellow canister).

Section VII Exposure Controls/Personal Protection

Highest Concentration: mg/m³ no standard issued

Test Method: No information found

Process Control: Operate in obturation under the protect of Nitrogen, ventilate partly, supply shower

and eye wash equipment.

Respiration System Protection: wear self breathing filter mask when there is possibility to contact

powder, and wear self contained breathing apparatus when necessary.

Eye Protection: wear safe protective goggles.

Body Protection: Wear chemical protective clothing.

Hand Protection: wear latex gloves

Other Protection: Prohibit smoking, eating and drinking in the worksite. Bathe and change clothes

after work, Keep clean personally.

Section IX Physics and Chemical Properities

Appearance: free flowing white crystal powder

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PH: 6-7.5 (6% water solution)

Melting Point ($^{\circ}$ C): >300 (decompose) Relative Density (water=1): 2.3~2.4

Bulk Density: ~0.9

Boiling Point: No information found

Relative Vapor Density (air=1): No information found

Flash Point (°C): Not available

Explosion Upper Limit % (V/V): No information found Explosion Lower Limit % (V/V): No information found

Combusting Temperature (℃): 250

Solubility: soluble in water, not soluble in methanol.

Application: reducing agent and bleaching agent in textile, dying, chemical, paper, environmental

protection, foodstuff, mineral, pharmacy and other industry.

Section X Stability and Reactivity

Stability: not stable, decompose at 75°C, must be stored in closed containers, will be oxided in open air.

Incompatibility: strong oxidant, acid, combustible materials. **Conditions to Avoid:** Moisture, humidity, heat, exposed in air.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Burning may produce sulfur oxides.

Section XI Toxicological Information

Acute toxicity: No information found

Thrill: No information found

Section XI Ecological Information

Ecological Toxicity: No information found

Biological Decomposition: No information found Abiologial Decomposition: No information found.

Section XIII Disposal Consideration

Disposal Characteristic: Not Dangerous waste

Disposal Treatment: The sodium hydrosulfite not decomposed completely can be collected and recycled, the decomposed can be dissolved and diluted with water. If possible, let the water into waste water disposal facilities, or dilute it enough with plenty of water. The package and leavings should be disposed after washing.

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Section XIV Transportation Information

IMO CLASS: 4.2 UN NO. 1384 Package Group: II

Transportation Note: transport by sheltered or covered conveyance. Choose van or containers without leak or breakage. When transported by normal truck, the package should be covered, prevent drench and moisture. The doors and windows of carriages should be fine if transported by railway, open carriage is prohibited. Containers should be used in marine shipment. The package must be stored in the cabin if shipped in bulk. Move the package gently, avoid damage, if the package is broken, should be repacked or handled properly. The package shouldn't be upside down or crashed. Keep the container closed, Prohibit transport with acids, combustible material, and oxidant together.

Section XV Regulationary Information

- Regulations on Safety Management of Dangerous Chemicals--promulgated by: The State Council of P.R.C. on Jan. 9, 2002
- 2. Rules for the implementation of Regulations on Safety Management of Dangerous Chemicals
- 3. Rules for the operation of dangerous chemicals in workplace

Section XVI Other Information

Composition Date: Jan.01, 2009

Composed by Safety Section of Shandong Jinhe Industrial Co., Ltd. Audited by Deputy Engineer of Shandong Jinhe Industrial Co., Ltd

The product information contained herein is believed to be accurate as of the date of the Material Safety Data Sheet, and is provided without warranty, expressed or implied, as to the results of this information or the product to which it relates.

This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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