



湖北宜化化工股份有限公司

*Hubei Yihua Chemical Industry Co., Ltd*

中國 · 湖北 · 宜昌 · 猗亭大道 399 號

399 Xiaoting Road, Yichang, Hubei Province, P.R.China

## **MATERIAL SAFETY DATA SHEET**

### **Sodium Hydrosulfite (Sodium Dithionite)**

#### **Section 1: Product and Company Information**

Product Name: Sodium Hydrosulfite

Synonyms: Sodium dithionite; Dithionous acid, disodium salt

Manufacturer: Hubei Yihua Chemical Industry Co., Ltd

Address: No. 399 Xiaoting Road, Yichang, Hubei, China

#### **Section 2. Composition/information on ingredient**

**Formula:**  $\text{Na}_2\text{S}_2\text{O}_4$

CAS Number: 7775-14-6

UN. No.: 1384

RTECS No.: JP2100000

IMDG Code: 4262

EMS no: 4.2-04

MFAG Table no: 635.700

Hazard Rating:

Health 3 0 Least

Fire 1 1 Slight

Reactivity 2 2 Moderate

Other 3 High

4 Extreme

Hazard Rating Method: NFPA

#### **Section 3. Hazards Identification**

Chinese dangerous goods No.: 42012

Hazard Class: 4.2

Health Hazard: May cause eyes, skin and breath apparatus irritation by inhalation or swallowing, severe irritation by long time approaching.

Environment hazard: May cause sulfur dioxide when it decomposes, so certain hazard for environment.

Danger for burning and exposure: May self burning at 250°C, Decomposes violently at 374 F (190°C). React violently with oxidants resulting in combusting or explosion. If exposed to a little water or to moisture, may be warming, firing even exploding.

#### **Section 4. Precautionary Statement**

##### **Warning:**

Flammable! May spontaneously ignite in moist air or upon contact with water. Causes severe irritation to the skin, eyes and mucous membranes. May cause an allergic skin reaction. Keep away from heat, sparks and open flames. Store in tightly closed containers. Wear impervious gloves, goggles and protective clothing when handling this product. Avoid breathing dust. Wash thoroughly after handling.

#### **Section 5. Fire and Explosion Data**

Flash Point: Not Applicable

Autoignition Temp: 250°C

Extinguishing Media: large quantities of water

**Special Procedures:** Wear full protective clothing and self-contained breathing apparatus with full face-piece. Avoid use of water unless sufficient amounts are available for flooding and flushing all involved products. Decomposition/combustion products may include toxic fumes such as sulfur dioxide. This product, upon contact with water, forms sulfurous acid.

**Explosion Hazards:** Decomposes violently at 374 F (190°C). React violently with oxidants resulting in combusting or explosion. If exposed to a little water or to moisture, may be warming, firing even exploding.

Upper explosion limit: Unavailable

Lower Explosion limits: Unavailable

Sensitivity/ Sparks: Unknown

Sensitivity/ Static Electricity: Unknown

#### **Section 6. Unintentional Release Information**

**Spill and leak procedure:** Eliminate all ignition sources (heat, sparks, open flames, etc.). Persons not wearing protective equipment should be excluded from the area of the spill until clean-up has been completed. Keep away from water or moisture. Shovel spilled material into containers. Thoroughly sweep up residual material, then wash the spill site.

**Waste Disposal:** This product, if disposed of, is an ignitable waste (D001) under current RCRA regulations.

#### **Section 7. Storage & Handling**

Flammable! Keep away from heat, sparks and open flames.

**Storage:** Keep in closed or covered containers when not in use. Store in cool dry place with adequate ventilation. Do not store near oxidants, acids or combustible materials.

**Handling:** Store in tightly closed containers. Wear impervious gloves, goggles and protective clothing when handling this product. Exercise caution when handling contents of the container. Wash with soap and water before eating, drinking, smoking or using toilet facilities. Whenever possible, use mechanical means to move large and

or heavy objects to help prevent back injuries.

## **Section 8. Personal Protection**

**Respiratory Protection:** A NIOSH/MSHA approved respirator is recommended during operations that generate dust.

**Skin Protection:** Wear protective gloves such as Neoprene.

**Eye Protection:** Chemical goggles in compliance with OSHA regulations are advised,

however, OSHA may also permit other types of safety glasses.

**Other Protection:** Impervious clothing and boots are recommended. Provide sufficient ventilation to maintain exposure below level of over-exposure.

## **Section 9. Physical Properties**

Appearance: free-flowing white crystalline powder

Odor Threshold: Slight irritability

Specific Gravity: Unavailable

Vapor Pressure (mm Hg): Nil

Melting Point: >300°C (Decomposes)

Initial boiling Point: Decomposes

Evaporation Rate: Nil

(Ethyl Ether = 1)

Solubility in water: Soluble

Bulk Density: ~0.9

Volatile %: Nil

PH.: 5-6

PH. Test Method: PH test paper

## **Section 10. Stability & Reactivity Information**

**Stability:** Spontaneous combustion can occur. Have strong reduction and can be oxidized if exposed to air. To be stored in sealed drums.

**Incompatibilities:** Avoid contact with acids, water and moist air. Avoid excessive heat, moisture, exposure to air.

**Hazardous Polymerization:** Hazardous polymerization will not occur under normal conditions. An explosion occurred after mixing sodium hydrosulfite, aluminum powder, potassium carbonate and benzaldehyde. Contact with acids liberates toxic gas. Loses all of its water of crystallization at 230F (110C). On contact with water, gaseous decomposition products are formed, which cause build-up of pressure in tightly closed containers.

**Decomposition:** Decomposition compounds include toxic fumes such as sulfur dioxide. Contact with water results in the formation of sulfurous acid.

## **Section 11. Toxicological Information**

Toxicity: no data available

Irritation: no data available

## **Section 12. Ecological Information**

Ecological toxicity: no data available.

Biodegradability: no data available.

Non-degradability: no data available.

## **Section 13 - Disposal Considerations**

Disposal characteristics: Non-hazardous.

Disposal Method: Recycle if possible when it is not fully decomposed. No toxicity for the decomposed material which can be dissolved and diluted by water. It should be treated by waste water disposal system if washing water can be used, otherwise, sufficient water must be used by dissolving and diluting until it is allowed for emission under environment protection. The package and the residue after burning also should be disposed after washing out by water.

## **Section 14. Transportation**

**Storage:** Keep in closed or covered containers when not in use. Store in cool dry place with adequate ventilation. Do not store near oxidants, acids or combustible materials.

**Handling:** Exercise caution when handling contents of the container. Wash with soap and water before eating, drinking, smoking or using toilet facilities. Whenever possible, use mechanical means to move large and or heavy objects to help prevent back injuries.

**Transportation:** Sodium dithionite, 4.2 (spontaneously combustible), UN 1384, PG II

## **Section 15. Regulation Information**

The Regulations of Safe Management regarding Dangerous Chemicals (issued by State Department on February 17, 1987.

The Enforcement Regulation of Safe Management regarding Dangerous Chemicals ( Edit No. 1992-677 by Chemical & Labour Ministry)

The Regulations for Safe Handling of Chemicals on workplace (Edit No.1996-423)

It is classified to be Hazard Class 4.2 as per *The classification and Remarks for Common Hazard Chemicals No. 13690-1992.*

## **Section 16. Additional Information**

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.

Recipient assumes all responsibility for the use of this information and the use (alone or in combination with any other product), storage or disposal of the product, including any resultant personal injurious property damage.

---

\*\*\*\*\* END OF REPORT \*\*\*\*\*