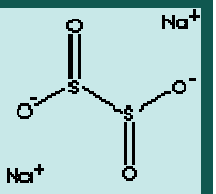
SODIUM HYDROSULFITE



PRODUCT IDENTIFICATION

CAS NO.	7775-14-6
EINECS NO.	231-890-0
FORMULA	$Na_2 O_4 S_2$ (Sodium Dithionite)
MOL WT.	174.10
HS CODE	2831.10
TOXICITY	Oral Rat LD 50: 5 g/kg.
SYNONYMS	Sodium dithionite; Reductone; Vatrolite; Sodium sulfoxylate; Dithionous acid,disodium salt; Sodium dithionite hydrate;
DERIVATION	
CLASSIFICATION	

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	White crystalline powder with weak sulforous odor
MELTING POINT	52C
BOILING POINT	Decomposes
SPECIFIC GRAVITY	2.19 - 2.20
SOLUBILITY IN WATER	Soluble (insoluble in alcohol)
pH	Acidic in solution
VAPOR DENSITY	
AUTOIGNITION	
NFPA RATINGS	Health: 2; Flammability: 3; Reactivity: 1
REFRACTIVE INDEX	
FLASH POINT	90 C
STABILITY	Stable under ordinary conditions (Decomposes in hot water and acid)

APPLICATIONS

Sodium Hydrosulfite is a white powder. Commercial sodium hydrosulfite contains 85% - 90% sodium dithionite w/w. It is readily soluble in water and shows powerful reducing action in aqueous solutions. Sodium hydrosulfite is used as a reducing agent in dying application. It undergoes reduction reaction with water-insoluble vat dye and sulfur dye to form water-soluble alkali metal salt of the dye (leuco form) so that they have affinity for the textile fiber. The reductive decomposition of the excessive dye by sodium hydrosulfite improve the colour fastness. Sodium hydrosulfite's reduction reaction removes residual oxide and wrong pigments. Sodium hydrosulfite is a reductive bleaching agent. It reduces carbonyl and alcohol groups, which function as colorants of the substances. It is used in bleaching mechanical paper pulp, cotton, wool and kaolin clay. Additional applications include water treatment, leather processing, food processing, gas purification, cleaning, printing and stripping. In addition to a reducing agent function, sodium hydrosulfite functions as a sulfonating agent and sodium ion source in a variety of chemical reactions.

SALES SPECIFICATION

APPEARANCE	White to Gray-White crystalline powder
$Na_2 O_4 S_2$	85% or 88% or 90% min
INSOLUBLES IN WATER	0.1% max
$Na_2S_2O_3$	1.2% max
$Na_2S_2O_5$	5-7%
$NaHSO_3$	0.5% max
Na_2CO_3	0.6-2%

HCOONa	0.5% max
Zn	0.0001% max
Pb	0.0001% max
Fe	0.005% max

TRANSPORTATION

PACKING	50kgs , 100kgs in Steel Drum
HAZARD CLASS	4.2
UN NO.	1384

OTHER INFORMATION

Hazard Symbols: XN, Risk Phrases: 22-31-7, Safety Phrases: 7/8-26-28A-43

SULFURIC SALTS

Sulfate (also spelled sulphate in Europe) is any chemical compound containing the SO_4^{2-} ion related to sulfuric acid (H_2SO_4). Sulfates are salts or esters of sulfuric acid, formed by replacing one or both of the hydrogens with a metal or a radical as in sodium sulfate, Na_2SO_4. Sulfates in which both hydrogens are replaced are called normal sulfates. Bisulfate is a compound that has the HSO_4^- radical. Bisulfate (called also hydrogen sulfate or acid sulfate) is a compound formed by replacing only one hydrogen in sulfuric acid. Sulfite (also sulphite) is a compound that contain the sulfite ion SO_3^{2-}. Sulfites are salts or esters of sulfurous acid (H_2SO_3), formed by replacing one or both of the hydrogens with a metal or a radical as in sodium sulfite, Na_2SO_3. Sulfites in which both hydrogens are replaced are called normal sulfites. Bisulfite is a compound that has the HSO_3^- radical. Bisulfate (called also hydrogen sulfite or acid sulfite) is a compound formed by replacing only one hydrogen in sulfurous acid. The term of 'meta' or 'pyro' is the chemical prefix for oxo acid formed through the loss of one water molecule (dehydration) from two molecules of ortho acid by heating. Pyrosulfuric acid is an example ($2H_2SO_4 - H_2O = H_2S_2O_7$). Ortho acid is the compound fully hydrated acid or its salts. Orthophosphoric acid is an example ($2 \cdot H_3PO_4 = P_2O_5 \cdot 3H_2O$), in contrast to the less hydrated form, pyrophosphoric acid ($2 \cdot HPO_3 = P_2O_5 \cdot H_2O$). $Na_2O_5S_2$ is called sodium metabisulfite ($2 \cdot HNaO_3S - H_2O$). Sulfide is a compound having one or more sulfur atoms in which the sulfur is connected directly to a carbon, metal, or other nonoxygen atom; for example sodium sulfide, Na_2S. Sulfide ion is S^{2-} with oxidation number -2. Bisulfide ion is an anion formed by two sulfur atoms having an overall -2 charge, $(S_2)^{2-}$. Sulfamate is a salt of sulfamic acid (HSO_3NH_2). Calcium sulfamate $Ca(SO_3NH_2)_2$ is an example.

PRICES

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