

# Sodium Hydrosulfide 45%

## Sodium hydrosulfide

Sodium Hydrosulfide is an economical form of reactive sulfur that is typically a light-yellow colored solution with the accompanying odor of rotten eggs. Hydrogen Sulfide (H<sub>2</sub>S), a toxic gas, is evolved upon contact of Sodium Hydrosulfide with acids.

**CAS number**  
16721-80-5

**EINECS/ELINCS No.**  
240-778-0

**Molecular weight**  
56.06

**Molecular formula**  
NaSH/NaHS

### Specifications

Appearance	Yellow to green liquid
Content	44-46 wt%
Density, 20°C	1.289-1.303 kg/l
Na <sub>2</sub> CO <sub>3</sub> (Sodium Carbonate)	≤ 0.5 wt%
Na <sub>2</sub> S	≤ 0.3 wt%

### Properties

Boiling point, 1 bar	approx. 125 °C
Crystallisation point	approx. + 15 °C
Vapor pressure, 20°C	approx. 14 mbar
Vapor pressure, 50°C	approx. 43 mbar
mm_Viscosity, 20°C	approx. 7 mm <sup>2</sup> /s

#### Notes:

Analytical methods are available on request.

## Applications

Sodium hydrosulfide is used as a reactive form of sulfur and acts as an intermediate in the production of other chemicals, including thio-chemicals used in textile processing, in the production of flame retardant resins, and in vulcanization accelerators. Sodium hydrosulfide is also used as a processing aid in the production of a variety of industrial products. It is a de-hairing agent in the production of fine leathers. In mining, it is a flotation agent, helpful in the precipitation of metals from ore slurries. Sodium hydrosulfide is also valuable as a raw material in the production of heat-resistant plastics for the auto and electronic industries. In paper making, Sodium hydrosulfide is used to add sulfidity to cooking liquor in kraft pulp mills.

## Storage

Store under nitrogen atmosphere in closed storage tanks. Requirements regarding storage tank design are available on request.

## Packaging and transport

Shipped in: Tank Trailers (22 short tons net weight), ISO Tank Containers (22 to 25 short tons net weight), Rail Tank Cars (88 short tons net weight).

UN number	2922 (CORROSIVE LIQUID, TOXIC, N.O.S.(Sodium hydrogensulphide))
Hazard Identification No.	86

## Safety and handling

Sodium Hydrosulfide 45% is classified as a hazardous substance. Although hydrogen sulfide (H<sub>2</sub>S) forms a stable bond with caustic in the NaSH solution, toxic vapor concentrations of H<sub>2</sub>S above the liquid are possible and typical for high quality NaSH solutions. For this reason NaSH should always be handled in closed systems under inert gas while vapors should be treated before venting into the air. Tank containers should not be opened at any time unless the tank is properly decontaminated. See our safety data sheet (SDS) for further information.

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The logo for Nouryon, featuring a stylized blue 'N' followed by the word 'ouryon' in a blue sans-serif font.