

Common Name: **SODIUM SULFIDE**

Synonyms: Sodium Monosulfide

CAS No: 1313-82-2

Molecular Formula: Na₂S

RTK Substance No: 1728

Description: White, yellow to red or pink, crystalline solid or flake which discolors on exposure to air

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
<p>3 - Health</p> <p>1 - Fire</p> <p>1 - Reactivity</p> <p>DOT#: UN 1385</p> <p>ERG Guide #: 135</p> <p>Hazard Class: 4.2 (Spontaneously Combustible)</p>	<p>Finely divided Sodium Sulfide can explode spontaneously in air.</p> <p>Use flooding quantities of water, foam or dry powder as extinguishing agents.</p> <p>DO NOT use CO₂ fire extinguishers.</p> <p>POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Hydrogen Sulfide</i> and <i>Sulfur Oxides</i>.</p> <p>CONTAINERS MAY EXPLODE IN FIRE.</p> <p>Use water spray to keep fire-exposed containers cool.</p>	<p>ELEVATED TEMPERATURES (1,688°F, 920°C) or FRICTION can cause explosive decomposition.</p> <p>Sodium Sulfide reacts violently with STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE); ALUMINUM POWDER; CARBON; and DIAZONIUM SALTS.</p> <p>Sodium Sulfide reacts with WATER to form <i>Hydrogen Sulfide gas</i>.</p> <p>DO NOT ALLOW Sodium Sulfide to become completely dry as it may ignite spontaneously.</p>

SPILL/LEAKS

Isolation Distance:

Spills: 25 meter (75 feet)

Fire: 800 meters (1/2 mile)

Keep finely divided **Sodium Sulfide** out of confined spaces, such as sewers, because of the possibility of an explosion.

May be hazardous to the environment and harmful to aquatic life.

PHYSICAL PROPERTIES

Odor Threshold: Rotten eggs

Flash Point: Spontaneously combustible when heated

Auto Ignition Temp: >896°F (>480°C)

Specific Gravity: 1.86 (water = 1)

Water Solubility: Slightly soluble

Melting Point: 1,688° to 1,742°F (920° to 950°C)

Molecular Weight: 78.05

EXPOSURE LIMITS

No occupational exposure limits have been established.

PROTECTIVE EQUIPMENT

Gloves: Silver Shield®/4H®

Coveralls: DuPont Tychem® CPF 1, QC, CPF 2 and SL for *dry Sodium Sulfide* and DuPont Tychem®, CSM, Responder® and TK for *Sodium Sulfide solution*

Respirator: Supplied air

HEALTH EFFECTS

Eyes: Irritation and burns

Skin: Irritation and burns, skin allergy with itching and rash

Inhalation: Nose, throat and lung irritation with coughing, and shortness of breath

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 30 minutes. Remove contact lenses if worn. Seek medical attention immediately.

Quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water. Seek medical attention.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer to a medical facility.