

Common Name: **AMMONIUM POLYSULFIDE**

Synonyms: Ammonium Sulfide; Diammonium Polysulfide

CAS No: 9080-17-5

Molecular Formula: $(NH_4)_2S_x$

RTK Substance No: 0113

Description: Clear, yellow to red liquid with a rotten egg or *Ammonia*-like odor

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
2 - Health 0 - Fire 1 - Reactivity DOT#: UN 2818 ERG Guide #: 154 Hazard Class: 8 (Corrosive)	<p>Ammonium Polysulfide is noncombustible but can decompose upon heating to release highly flammable gases.</p> <p>Use dry chemical, CO₂, water spray, alcohol-resistant foam or other foam as extinguishing agents.</p> <p>POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Nitrogen Oxides</i>, <i>Sulfur Oxides</i>, and <i>Hydrogen Sulfide</i>.</p> <p>Use water spray to keep fire-exposed containers cool.</p>	<p>Ammonium Polysulfide reacts with STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC) to form flammable and toxic <i>Hydrogen Sulfide gas</i>.</p> <p>Ammonium Polysulfide reacts with STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE) to form <i>Ammonia</i>.</p> <p>Ammonium Polysulfide is not compatible with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE) and METALS.</p> <p>Keep Ammonium Polysulfide away from AIR, HEAT, LIGHT and WATER.</p>

SPILL/LEAKS

Isolation Distance:

Spill: 50 meters (150 feet)

Fire: 800 meters (1/2 mile)

Absorb liquid with fly ash, cement powder or commercial sorbent and place into sealed containers for disposal.

DO NOT wash into sewer.

PHYSICAL PROPERTIES

Odor Threshold: Rotten egg or *Ammonia*-like

Flash Point: Noncombustible

Boiling Point: Decomposes

Molecular Weight: Varies

EXPOSURE LIMITS

ACGIH: 1 ppm, 8-hr TWA; 5 ppm, Ceiling (for *Hydrogen Sulfide*)

PROTECTIVE EQUIPMENT

Gloves: Butyl and Viton (>8-hr breakthrough for *liquid Ammonia*)

Coveralls: Tychem® BR, Responder®, and TK (>8-hr breakthrough for *liquid Ammonia* and *Hydrogen Sulfide*)

Respirator: SCBA

HEALTH EFFECTS

Eyes: Irritation and burns

Skin: Irritation and burns

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

Headache, dizziness, nausea and vomiting

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.

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

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

Transfer promptly to a medical facility.