# AMMONIUM SULFIDE CAS # 12135761

A Special Carcinogen E Dermal Hazard I Neurotoxin

B Human Terato\Repro Haz F Corrosive J Suspect Carcinogen

C Highly Toxic G Eye Damage K Suspect Terato\Repro Haz

D Inhalation Hazard H STEL L Sensitizers

HAZARD INDEX . . . D E . . . . J K .

NFPA HAZARD CODES (H,F,R,O) 3 3 0

ACUTE TOXICTY RISK INDEX 3.8 - LD50 80.0 mg/Kg

INHALATION HAZARD INHALATION RISK INDEX 4.7 - LC50

ROUTE OF EXPOSURE

skin Contact: Causes burns.

skin Absorption: May be harmful if absorbed through the skin.

Readily absorbed through skin.

Eye Contact: Causes burns.

Inhalation: Material is extremely destructive to the tissue of

the mucous membranes and upper respiratory tract. May be harmful

if inhaled.

Ingestion: May be harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE

Hydrogen sulfide is recognized by its characteristic odor of

"rotten eggs". The detectable, minimum perceptible odor occurs

at 0.13ppm. At concentrations of 20ppm hydrogen sulfide begins

acting as an irritant on the mucous membranes of the eyes and

respiratory tract and increases with concentration and exposure

time. The irritant action and odor of rotten eggs often provides

the first warning of hydrogen sulfide exposure. Unfortunately,

above 150ppm the gas exerts a paralyzing effect on the olfactory

apparatus. Prolonged exposure to moderate concentrations

(250ppm) may cause pulmonary edema. At concentrations over

500ppm, drowsiness, dizziness, excitement, headache, unstable

gait, and other systemic symptoms occur within a few minutes.

Sudden loss of consciousness without premonition, anxiety, or

sense of struggle are characteristic of acute exposure at

concentrations above 700ppm. At concentrations of 1000-2000ppm

hydrogen sulfide is rapidly absorbed through the lung into the

blood. Initially hyperpnea occurs, followed by rapid collapse

and respiratory inhibition. At higher concentrations, hydrogen

sulfide exerts an immediate paralyzing effect on the respiratory

centers. When concentration reaches 5000ppm, imminent death

almost always results. Generally speaking, imminent death due to

asphyxia can happen at any time when the concentration reaches

1000ppm or more. Symptoms of exposure may include burning

sensation, coughing, wheezing, laryngitis, shortness of breath,

headac

PHYSICAL CHARACTERISTICS

PHYSICAL STATE: Liquid

Flammable

VAPOR PRESSURE 450.0 mm Hg @ 20 °C

FLASH POINT 68 °F

Forms ignitable mixtures in air at room temperature - Danger of remote

ignition and flashback

SEGREGATION: SHELF # 1

STORAGE GROUP(S):

l - Flammable/Combustible Solvent

WASTE CHARACTERISTIC HAZARD: IGNITABLE TOXIC

INCOMPATIBILITIES:Copper, Zinc, Aluminum, Strong bases, Acids, Strong

oxidizing agents.

FIRE EXTINGUISHER: Water spray. appropriate foam. Dry chemical powder. Use

water spray to cool fire-exposed containers. Do not use carbon dioxide

extinguisher on this material.

TOXIC EMISSIONS WHEN BURNED: Sulfur oxides Evolves hydrogen sulfide which is

poisonous Ammonia

REACTIVE PROPERTIES

HANDLING: Do not breathe vapor. Do not get in eyes, on skin, on clothing.

Avoid prolonged or repeated exposure. STORAGE: Keep tightly closed. Keep away

from heat, sparks, and open flame\. Incompatible Materials: Avoid contact

with acid\. SPECIAL REQUIREMENTS Avoid contact with acid.

GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: F-C-N

Indication of Danger: Highly Flammable. Corrosive. Dangerous for

the environment.

R: 11-31-34-50

Risk Statements: Highly flammable. Contact with acids liberates

toxic gas. Causes burns. Very toxic to aquatic organisms.

S: 26-36/37/39-45-61

Safety Statements: In case of contact with eyes, rinse

immediately with plenty of water and seek medical advice. Wear

suitable protective clothing, gloves, and eye/face protection.

In case of accident or if you feel unwell, seek medical advice

immediately (show the label where possible). Avoid release to

the environment. Refer to special instructions/safety data

sheets.

US DEPARTMENT OF ENERGY TEEL'S

DOE Occupational Exposure Limit 3.5 ppm

DOE Short Term Exposure Limit 10 ppm

DOE Ceiling Limit 15 ppm

The information presented in the OPMSDS is intended as a synopsis of relative hazard characteristics for this chemical, for application within the UMass-Boston Chem/XL Laboratory Program. This information is derived from a wide range of sources documented in that program. While these sources are considered credible, the user is cautioned that the university cannot guarantee the accuracy nor accept responsibility for damages which may arise from errors, omissions, or the use of this information in any context other than intended. The user is strongly encouraged to seek additional information whenever feasible.