



## SAFETY DATA SHEETS

M-22522/E-3

DATE: 21May2015

SUPPLIER ADDRESS: 1290 COMBERMERE STREET

TROY, MI 48083

EMERGENCY PHONE NUMBER: (248) 589-2950

### 1. CHEMICAL PRODUCT

PRODUCT NAME: HYDROGEN SULFIDE IN NITROGEN

SYNONYMS: None

### 2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient Name	Formula	CAS#	Concentration	Exposure Limits (PPM)			
				ACGIH TLV	OSHA PEL	MAC	Other STEL
HYDROGEN SULFIDE	H2S	7783-06-4	.0011-4 PCT	10	20	10	15
NITROGEN	N2	7727-37-9	BALANCE	S/A	S/A	S/A	S/A

Note: S/A = SIMPLE ASPHYXIANT

### 3. HAZARD IDENTIFICATION

\*\*\* EMERGENCY OVERVIEW \*\*\*

High pressure gas.

Can cause rapid suffocation.

Can cause irritation to the respiratory tract and eyes.

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: Inhalation

ACUTE EFFECTS: Irritation to the eyes, mucous membranes, and upper respiratory tract. May cause pulmonary edema, headache, dizziness, bronchitis, and respiratory paralysis. Mixture can act as a simple asphyxiant by displacing air necessary for life. Symptoms include rapid respiration, muscular incoordination, fatigue, nausea, vomiting, unconsciousness, and death.

CHRONIC EFFECTS: May cause conjunctivitis, photophobic, corneal bullae, tearing, pain, and blurred vision.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Persons with impaired pulmonary function or pre-existing eye problems may be at increased risk from exposure.

OTHER EFFECTS OF OVEREXPOSURE: None

CARCINOGENICITY (US Only):

NTP - No

IARC MONOGRAPHS - No

OSHA REGULATED - No

### 4. FIRST AID MEASURES

INHALATION: Immediately remove victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.

EYE CONTACT: Immediately flush with copious amounts of water for at least 15 minutes.

SKIN CONTACT: Immediately flush with copious amounts of water for at least 15 minutes while removing contaminated clothing.

INGESTION: None

IN EVENT OF EXPOSURE, CONSULT A PHYSICIAN

NOTE TO PHYSICIAN: None

### 5. FIRE FIGHTING MEASURES

FLASH POINT: Nonflammable

AUTOIGNITION TEMPERATURE: N/A

FLAMMABLE LIMITS: Nonflammable

LOWER:

UPPER:

EXTINGUISHING MEDIA: Use what is appropriate for surrounding fire.

SPECIAL FIRE FIGHTING INSTRUCTION AND EQUIPMENT: Wear self-contained breathing apparatus and full protective clothing.

Keep fire exposed cylinders cool with water spray. If possible, stop the product flow.

HAZARDOUS COMBUSTION PRODUCTS: None

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Cylinder rupture may occur under fire conditions.

### 6. ACCIDENTAL RELEASE MEASURES

CLEAN UP PROCEDURES: Evacuate and ventilate area. Remove leaking cylinder to exhaust hood or safe outdoor area. Shut off source if possible and remove source of heat.

SPECIALIZED EQUIPMENT: None

**7. HANDLING AND STORAGE**

PRECAUTIONS TO BE TAKEN IN HANDLING: Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.

PRECAUTIONS TO BE TAKEN IN STORAGE:  
Store in well ventilated areas. Keep valve protection cap on cylinders when not in use.

**8. EXPOSURE CONTROLS/ PERSONAL PROTECTION**

ENGINEERING CONTROLS: Provide adequate general and local exhaust ventilation to maintain concentrations below exposure limits and to avoid asphyxiation.

## PERSONAL PROTECTION

EYE/FACE PROTECTION: Safety glasses

SKIN PROTECTION: Protective gloves.

RESPIRATORY PROTECTION: In case of leakage, use self-contained breathing apparatus.

OTHER PROTECTIVE EQUIPMENT: Safety shoes when handling cylinders.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE: Colorless

ODOR: Rotten egg smell.

PHYSICAL STATE: Gas

VAPOR PRESSURE: N/Ap

VAPOR DENSITY (AIR=1): 0.968-0.976

BOILING POINT (C): N/Ap

SOLUBILITY IN WATER: v/v @ 0 deg. C:  
0.09

SPECIFIC GRAVITY (H<sub>2</sub>O=1): Gas

EVAPORATION RATE: Gas

ODOR THRESHOLD: 0.06 to 1.0 ppm

**10. STABILITY AND REACTIVITY**

STABILITY: Stable under normal storage conditions.

CONDITIONS TO AVOID: Storage in poorly ventilated areas. Storage near a heat source.

MATERIALS TO AVOID: Oxidizing materials, rubber, lead, silver, alkali metals, mercury, brass and copper. Nitrogen reacts with Li, Nd, and Ti at high temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION: Sulfur oxides.

**11. TOXICOLOGICAL INFORMATION**

LETHAL CONCENTRATION (LC<sub>50</sub>): 712 ppm, Rat 1 hour.

LETHAL DOSE 50 (LD<sub>50</sub>): N/Ap

TERATOGENICITY: N/Ap

REPRODUCTIVE EFFECTS: N/Ap

MUTAGENICITY: N/Ap

**12. ECOLOGICAL INFORMATION**

No adverse ecological effects are expected.

**13. DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHOD: Dispose of non-refillable cylinders in accordance with federal, state and local regulations. Allow gas to vent slowly to atmosphere in an unconfined area or exhaust hood. If the cylinders are the refillable type, return cylinders to supplier with any valve outlet plugs or caps secured and valve protection caps in place.

**14. TRANSPORT INFORMATION**

CONCENTRATION: 11 ppm - 4%

DOT DESCRIPTION (US ONLY):

PROPER SHIPPING NAME: Compressed gas,  
n.o.s.

HAZARD CLASS: 2.2 (nonflammable)

IDENTIFICATION NUMBER: UN1956

REPORTABLE QUANTITIES: 100lbs.

LABELING: NONFLAMMABLE GAS

ADR/RID (EU Only): Class 2, 12

SPECIAL PRECAUTIONS: Cylinders should be transported in a secure upright position in a well ventilated truck.

**15. REGULATORY INFORMATION**

OSHA: Process Safety Management: Minor component is listed in appendix A 29 CFR 1910.119 as a highly hazardous chemical.

TSCA: Mixture is not listed in TSCA inventory.

SARA: The threshold planning quantity for this mixture is 10,000 lbs.

EU NUMBER: N/Ap

NUMBER IN ANNEX 1 OF DIR 67/548: Mixture is not listed in annex 1.

EU CLASSIFICATION: N/Ap

R: 20

S: 9

## 16. OTHER INFORMATION

OTHER PRECAUTIONS: Protect containers from physical damage. Do not deface cylinders or labels. Cylinders should be refilled by qualified producers of compressed gas. Shipment of a compressed gas cylinder which has not been filled by the owner or with his written consent is a violation of federal law (49 CFR).

### ABBREVIATIONS:

N/Ap - Not Applicable

N/Av - Not Available

SA - Simple Asphyxiant

NE - None Established

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