BOC GASES -- HYDROGEN SULFIDE -- 6830-00N084167

Product Identification

Product ID: HYDROGEN SULFIDE
MSDS Date: 06/07/1996
FSC: 6830
NIIN: 00N084167
MSDS Number: CGSJR

Responsible Party:

Company Name: BOC GASES
Address: 575 MOUNTAIN AVE
City: MURRAY HILL
State: NJ
ZIP: 07974
Country: US
Info Phone Num: 908-464-8100
Emergency Phone Num: 905-949-3777; 800-424-9300 (CHEMTREC)
CAGE: JO323

Contractor Identification:

Company Name: BOC GASES
Address: 575 MOUNTAIN AVE
Box: City: MURRAY HILL
State: NJ
ZIP: 07974
Country: US
Phone: 908-464-8100
CAGE: JO323

Company Name: BOC GASES, A DIVISION OF THE BOC GROUP, INC
Address: 575 MOUNTAIN AVENUE
Box: City: MURRAY HILL
State: NJ
ZIP: 07974
Country: US
Phone: 908-464-8100
CAGE: 80382

Composition/Information on Ingredients

Ingredient Name: HYDROGEN SULFIDE (SARA 302/313) (CERCLA)
CAS: 7783-06-4
RTECS #: MX1225000
Fraction by Wt: >99%
OSHA PEL: 20 PPM, C
ACGIH TLV: 10 PPM; 15 STEL
EPA Rpt Qty: 100 LBS
DOT Rpt Qty: 100 LBS

Ingredient Name: SUPDAT: AT CONCS >700 PPM HAVE BEEN FATAL. CONTINUOUS INHALATION OF LOW CONCS MAY CAUSE OLFATORY FATIGUE/PARALYSIS OF (ING 3)
RTECS #: 999999997Z

Ingredient Name: ING 2: SENSE OF SMELL. THUS, DETECTION OF HYDROGEN SULFIDE BY ITS ODOR IS NOT EFFECTIVE. TOXIC EFFECTS OBSERVED IN (ING 4)
RTECS #: 999999997Z

Ingredient Name: ING 3: NEWBORN RATS AFTER EXPOSURE OF PREGNANT FEMALE TO 20 PPM HYDROGEN SULFIDE.
RTECS #: 999999997Z

Ingredient Name: FIRST AID PROC: IN ALL CASES OF OVEREXP. RESCUE PERS SHOULD BE EQUIPPED W/NIOSH APPLICABLE SCBA & SHOULD RECOGNIZE (ING 6)
RTECS #: 999999997Z

Ingredient Name: ING 5: HAZS OF OVEREXP DUE TO OLFATORY FATIGUE. EXTREME FIRE HAZ EXISTS WHEN RESCUING SEMICONSCIOUS/UNCON PERS DUE (ING 7)
INGED NAME:ING 6: TO FLAMMABILITY HAZ. AVOID USE OF RESCUE EQUIP WHICH MAY CNTNR IGNIT SOURCES/CAUSE STATIC DISCHARGE. ASSIST(ING 9)
RTECS #:99999999Z

INGED NAME:ING 7: VICTIMS TO UNCONTAM AREA & INHALE FRESH AIR. QUICK REMOVAL FROM CONTAM AREA IS MOST IMPORTANT. IF BRTHG (ING 9)
RTECS #:99999999Z

INGED NAME:ING 8: STOPS ADMIN ARTF RESP & SUPPLEMENTAL OXYGEN OR MIXTURE OF 5% CARBON DIOXIDE IN OXYGEN. KEEP CALM & WARM. (ING 10)
RTECS #:99999999Z

INGED NAME:ING 9: FURTHER TREATMENT SHOULD BE SYMPTOMATIC & SUPPORTIVE. SEEK MED ASSISTANCE IMMED.
RTECS #:99999999Z

INGED NAME:HSNGL/STOR: SENSE TO DETECT PRESENCE OF HYDROGEN SULFIDE. ANALYTICAL DEVICES & INSTRUMENTATION ARE READILY AVAL(IING 12)
RTECS #:99999999Z

INGED NAME:ING 12: FOR THIS PURPOSE. PERFORM FREQUENT ANALYTICAL TESTS TO BE SURE TWA NOT EXCEEDED. MANY METALS CORRODE (ING 13)
RTECS #:99999999Z

INGED NAME:ING 12: RAPIDLY W/WET HYDROGEN SULFIDE. ANHYDROUS HYDROGEN SULFIDE CAN BE HANDLED IN CARBON STEEL, ALUMINUM (ING 14)
RTECS #:99999999Z

INGED NAME:ING 13: INCONEL, STELLITE & 304 & 316 STAINLESS STEELS. AVOID HARD STEELS WHICH ARE HIGHLY STRESSED; THEY MAY BE(ING 15)
RTECS #:99999999Z

INGED NAME:ING 14:SUSCEPTIBLE TO HYDROGEN EMBRITTLMENT FROM HYDROGEN SULFIDE. USE ONLY IN WELL-VENTD AREA. VALVE PROT CAPS(ING 16)
RTECS #:99999999Z

INGED NAME:ING 15: MUST BE IN PLACE UNLESS CNTNR SECURE W/VALVE OUTLET PIPED TO USE POINT. DO NOT DRAG/SLIDE/ROLL CYLS. USE (ING 17)
RTECS #:99999999Z

INGED NAME:ING 16: SUITABLE HAND TRUCK FOR MOVEMENT. USE PRESSURE REDUCING REGULATOR WHEN CONNECTING CYL TO LOWER PRESSURE (ING 18)
RTECS #:99999999Z

INGED NAME:ING 17: (<750 PSIG) PIPING/SYSTEMS. DO NOT HEAT CYL TO INCR DISCHARGE RATE OF PROD FROM CYL. USE CHECK VALVE OR (ING 19)
RTECS #:99999999Z

INGED NAME:ING 18: TRAP IN DISCHARGE LINE TO PREVENT HAZARDOUS BACK FLOW INTO SYSTEM.
RTECS #:99999999Z

INGED NAME:OTHER PRECS:KNOCKED OVER. FULL & EMPTY CYLS SHOULD BE SEGREGATED. USE "FIRST IN-FIRST OUT" INVENTORY SYS TO PVNT(ING 21)
RTECS #:99999999Z

INGED NAME:ING 20: FULL CYLS BEING STORED FOR EXCESS PERIODS. POST "NO SMKG OR OPEN FLAMES" SIGNS IN STOR/USE AREAS. THERE(ING 22)
RTECS #:99999999Z

INGED NAME:ING 21:SHOULD BE NO IGNIT SOURCES IN STOR/USE AREA. FOR ADDNL STOR RECOMS CONSULT COMPRESSED GAS ASSOC PAMPHLETS(ING 23)
RTECS #:99999999Z

INGED NAME:ING 22:P-1 & G-12. NEVER CARRY COMPRESSED GAS CYL/CNTNR OF
GAS IN CRYOGENIC LIQ FORM IN ENCLSD SPACE SUCH AS CAR(ING 24)
RTECS #: 99999992Z

Ingrd Name: ING 23: TRUNK/VAN/STATION WAGON. LEAK CAN RSLT IN FIRE,
EXPLO, ASPHY/TOX EXPOS. SHIPMENT OF COMPRESSED GAS CYL (ING 25)
RTECS #: 99999992Z

Ingrd Name: ING 24: WHICH HAS NOT BEEN FILLED BY OWNER/WITH HIS/HER
(WRITTEN) CONSENT IS A VIOLATION OF TRANSPORTATION REGS.
RTECS #: 99999992Z

Hazards Identification

LD50 LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.
Routes of Entry: Inhalation: YES Skin: YES Ingestion: YES
Reports of Carcinogenicity: NTP: NO IARC: NO OSHA: NO
Health Hazards Acute and Chronic: EYES: LOW CONCS GENERALLY CAUSE IRRIT
TO CONJ. RPTD EXPOS TO LOW CONCS REPORTED TO CAUSE CONJ, PHOTO
PHOBIA, CORNEAL BULLAE, TEARING, PAIN & BLURRED VISION. SKIN CNTCT:
MAY IRRITATE. INGEST: UNLIKELY. HYDROGEN SULFIDE IRRIT MUC MEMBS
CAUSING BURNING FEELING W/ EXCESS SALIVATION LIKELY. GI TRACT IRRIT
MAY (EPTS OF OVEREXP)
Explanation of Carcinogenicity: NOT RELEVANT
Effects of Overexposure: HLTH HAZ: ALSO OCCUR. INHAL: HYDROGEN SULFIDE
REACTS W/ ENZYMES IN BLOODSTREAM & INHIBITS CELLULAR RESPIRATION
RS/TG IN PULM PARALYSIS, SUDDEN COLLAPSE & DEATH. CONTINUOUS EXPOS
TO LOW (15-50 PPM) CONCS GENERALLY CAUSES MUC MEMB IRRIT & MAY
ALSO CAUSE HDCH, DIZZ/NAUS. HIGHER CONCS (200-300 PPM) MAY RSLT IN
RESP (SUPDAT)
Medical Cond Aggravated by Exposure: BLOOD DISORDERS.

First Aid Measures

First Aid: EYES: PERS W/ POCTNL EXPOS TO HYDROGEN SULFIDE SHOULD NOT WEAR
CNTCT LENSES. FLUSH CONTAM EYES W/ LG AMTS OF WATER FOR AT LST 15
MIN. PART EYELIDS W/ FINGERS TO ENSURE COMPLETE FLUSHING. IF IRRIT
PERSIST S, SEEK MED ATTN IMMEDIATE. SKIN: FLUSH AREA W/ WATER. IF IRRIT
PERSISTS, CONSULT MD. INGEST: TREAT IN MANNER SIMILAR TO INHAL
EXPOS. SEEK MED ATTN AS SOON AS POSS. INHAL: PROMPT MED ATTN
MANDATORY (ING 5)

Fire Fighting Measures

Lower Limits: 4.0%
Upper Limits: 44.0%
Extinguishing Media: WATER, CARBON DIOXIDE, DRY CHEMICALS.
Fire Fighting Procedures: USE NIOSH APPROVED SCBA AND FULL PROTECTIVE
EQUIPMENT. IF POSSIBLE, STOP FLOW OF HYDROGEN SULFIDE. USE WATER
SPRAY TO COOL SURROUNDING CONTAINERS.
Unusual Fire/Explosion Hazard: HYDROGEN SULFIDE IS HVR/AIR & MAY ACCUM
IN LOW AREAS & MAY TRAVEL CONSIDERABLE DIST TO IGNIT SOURCE. SHOULD
FLAME BE EXTINGUISHED & FLOW OF GAS (SUPDAT)

Accidental Release Measures

Spill Release Procedures: EVACUATE PERS FROM AREA. USE APPROP PROT
EQUIP. IF LEAK IS IN USER'S EQUIP, BE CERTAIN TO PURGE PIPING
W/ INERT GAS PRIOR TO ATTEMPTING REPAIRS. IF LEAK IS IN CNTNR OR
CNTNR VALVE, CONTACT APPROP EMER TELEPHONE NUMBER LISTED/CALL
CLOSEST BOC LOCATION.
Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

Handling and Storage

Handling and Storage Precautions: EARTH-GROUND & BOND ALL LINES & EQUIP
ASSOC W/HYDROGEN SULFIDE SYS. ALL ELEC EQUIP SHOULD BE NON-SPKG OR
EXPLO PROOF. DO NOT RELY ON OLFAC TORY (ING 11)
Other Precautions: PROTECT CYLS FROM PHYSICAL Dmg. STORE IN COOL, DRY, WELL-VENTED AREA AWAY FROM HEAVILY TRAFFICKED AREAS & EMER EXITS. DO NOT LET TEMPS WHERE CYLS STORED EXCEED 130F (54C). STORE CYLS UPRIGHT & FIRMLY SE CURED TO PVNT FALLING/BEING (ING 20)

---------------------- Exposure Controls/Personal Protection ----------------------

Respiratory Protection: NIOSH APPROVED POSITIVE PRESSURE AIR LINE WITH FULL-FACE MASK AND ESCAPE BOTTLE OR SCBA SHOULD BE AVAILABLE FOR EMERGENCY USE.
Ventilation: HOOD WITH FORCED VENTILATION. USE LOCAL EXHUST TO PREVENT ACCUMULATION ABOVE EXPOSURE LIMIT.
Protective Gloves: NITRILE, BUTYL RUB, PVC, POLYETHYLENE.
Eye Protection: ANSI APPROVED CHEM WORKERS GOGGLES.
Other Protective Equipment: ANSI APPROVED EYE WASH & DELUGE SHOWER.
SAFETY SHOES.

Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.
Supplemental Safety and Health
VP: 267 (1840 KPA) PSIA. EXPLO HA2: CONTINUE, INCR VENT TO PVNT FLAM MIX FORM IN LOW AREAS/POCKETS. PROD MAY EXPLODE OR BURN OVER WIDE RANGE OF MIXS IN AIR. MTRL TO AVOID: WHEN MIXED W/VAPS OF CHLORINE, OXYGEN DIFLUORIDE OR NITROGEN TRIFLUORIDE. EPTS OF OVEREXP: ARREST LEADING TO COMA/UNCON. EXPOS FOR >30 MIN (ING 2)

---------------------- Physical/Chemical Properties ----------------------

Boiling Pt: B.P. Text: -76F, -60C
Melt/Freeze Pt: M.P./F.P Text: -119F, -83C
Vapor Pres: SUPDAT
Vapor Density: 1.21
Solubility in Water: SOLUBLE
Appearance and Odor: COLORLESS VAPOR WITH ROTTEN EGG ODOR.

---------------------- Stability and Reactivity Data ----------------------

Stability Indicator/Materials to Avoid: YES
DANGEROUSLY REACTIVE WHEN MIXED W/CONC NITRIC ACID OR OTHER STRONG OXIDIZING AGENTS. VAPS WILL IGNITE SPONT (SUPDAT)
Stability Condition to Avoid: NONE SPECIFIED BY MANUFACTURER.
Hazardous Decomposition Products: OXIDES OF SULFUR.

---------------------- Disposal Considerations ----------------------

Waste Disposal Methods: DISP MUST BE I/A/W FED, STATE & LOC REGS. DO NOT ATTEMPT TO DISPOSE OF RESIDUAL WASTE/UNUSED Q'TYS. RETURN IN SHIPPING CNTRN PROPERLY LABELED W/VALVE OUTLET PLUGS/CAPS SECURED & VALVE PROT CAP IN PLACE TO BOC/AUTHORIZED DISTRIBUTOR FOR DISP.

Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.