RMA # 1014UT23

Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

GAS, VENT WASTE, SOUR

Product Use: Waste
Company Identification
Chevron Products Company
6001 Bollinger Canyon Road
San Ramon, CA 94583
United States of America

Transportation Emergency Response
CHEMTREC: (800) 424-9300 or (800) 424-9300 or (703) 527-3887
Health Emergency
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623
Product Information
Product Information: http://www.chevron.com/contact

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION: Simple Asphyxiant. Flammable gas: Category 1. Gas under pressure: Compressed gas. Acute inhalation toxicant: Category 1. Eye irritation: Category 2A. Acute aquatic toxicant: Category 1.

Signal Word: Danger

Physical Hazards: Extremely flammable gas. Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation.

Health Hazards: Fatal if inhaled. Causes serious eye irritation.

Environmental Hazards: Very toxic to aquatic life.

PRECAUTIONARY STATEMENTS:
Prevention: Keep away from heat/sparks/open flames/hot surfaces. -- No smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wear respiratory protection. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid release to the environment.
Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Specific treatment is urgent (see Notes to Physician on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Immediately call a poison center or doctor/physician. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so. Collect spillage.
Storage: Protect from sunlight. Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal: Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

HAZARDS NOT OTHERWISE CLASSIFIED: May release highly toxic and flammable hydrogen sulfide gas (H2S).

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Waste gases, refinery vent	68814-47-1	100 %weight
Hydrogen sulfide	7783-06-4	12 %weight

SECTION 4 FIRST AID MEASURES

Description of first aid measures
Eye: Flush eyes with water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get immediate medical attention.
Skin: Skin contact with the liquid may result in frostbite and burns. Soak contact area in tepid water to alleviate the immediate effects and get medical attention.
Ingestion: No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice. No specific first aid measures are required because this material is a gas.
Inhalation: During an emergency, wear an approved, positive pressure air-supplying respirator. Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. If exposure to hydrogen sulfide (H2S) gas is possible during an emergency, wear an approved, positive pressure air-supplying respirator. Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

Most important symptoms and effects, both acute and delayed
IMMEDIATE HEALTH EFFECTS
Eye: Contact with the eyes causes severe irritation. Because the liquid product evaporates quickly, it can have a severe chilling effect on eyes and can cause local freezing of tissues (frostbite). Symptoms may include pain, tearing, reddening, swelling and impaired vision.
Skin: Because the liquid product evaporates quickly, it can have a severe chilling effect on skin and can cause local freezing of tissues (frostbite). Contact with the skin is not expected to cause an allergic skin

response. Symptoms may include pain, itching, discoloration, swelling, and blistering. Not expected to be harmful to internal organs if absorbed through the skin.
Ingestion: Material is a gas and cannot usually be swallowed.
Inhalation: Highly toxic; may be fatal if inhaled. This material can act as a simple asphyxiant by displacement of air. Symptoms of asphyxiation may include rapid breathing, incoordination, rapid fatigue, excessive salivation, disorientation, headache, nausea, and vomiting. Convulsions, loss of consciousness, coma, and/or death may occur if exposure to high concentrations continues. Hydrogen sulfide has a strong rotten-egg odor. However, with continued exposure and at high levels, H2S may deaden a person's sense of smell. If the rotten egg odor is no longer noticeable, it may not necessarily mean that exposure has stopped. At low levels, hydrogen sulfide causes irritation of the eyes, nose, and throat. Moderate levels can cause headache, dizziness, nausea, and vomiting, as well as coughing and difficulty breathing. Higher levels can cause shock, convulsions, coma, and death. After a serious exposure, symptoms usually begin immediately.

The U.S. National Institute for Occupational Safety and Health (NIOSH) considers air concentrations of hydrogen sulfide gas greater than 100 ppm to be Immediately Dangerous to Life and Health (IDLH).

DELAYED OR OTHER HEALTH EFFECTS: Not classified

Indication of any immediate medical attention and special treatment needed
Note to Physicians: Administration of 100% oxygen and supportive care is the preferred treatment for poisoning by hydrogen sulfide gas. For additional information on H2S, see Chevron MSDS No. 301.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Allow gas to burn if flow cannot be shut off safely. Apply water from a safe distance to cool container, surrounding equipment and structures. Container areas exposed to direct flame contact should be cooled with large quantities of water (500 gallons water per minute flame impingement exposure) to prevent weakening of container structure.
Unusual Fire Hazards: SPECIAL NOTES: In case of fire do not extinguish. Stop flow of fuel and allow fire to burn out.

PROTECTION OF FIRE FIGHTERS:
Fire Fighting Instructions: Do not extinguish. Stop flow of fuel and allow fire to burn out. If flames are accidentally extinguished, explosive reignition may occur. Eliminate ignition sources. Keep people away. Isolate fire area and deny unnecessary entry. Immediately withdraw all personnel from area in case of rising sound from venting safety device or discoloration of the container. For unignited vapor cloud, use water spray to knock down and control dispersion of vapors. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out and danger of reignition has passed. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.
Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Sulfur.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of released gas. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator. For large releases, warn public of downwind explosion hazard. If this material is released into a work area, evacuate the area immediately. Persons entering the contaminated area to correct the problem or to determine whether it is safe to resume normal activities must comply with all instructions in the Exposure

Controls/PersonalProtection section.
Spill Management: Stop the source of the release if you can do it without risk. Observe precautions in Exposure Controls/Personal Protection section of the MSDS. All equipment used when handling the product must be grounded. If possible, turn leaking containers so that gas escapes rather than liquid. Use water spray to reduce vapors or divert vapor cloud drift. Do not direct water at spill or source of leak. Prevent spreading of vapors through sewers, ventilation systems and confined areas. Isolate area until gas has dispersed.
Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.
Precautionary Measures: This material presents a fire hazard. Gas can catch fire and burn with explosive force. Invisible gas spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Gases are heavier than air and may travel along the ground or into drains to possible distant ignition sources that may cause an explosive flashback. Do not breathe gas. Do not get in eyes. Do not breathe vapor or fumes.
Unusual Handling Hazards: Toxic quantities of hydrogen sulfide (H2S) may be present in storage tanks and bulk transport vessels which contain or have contained this material. Persons opening or entering these compartments should first determine if H2S is present. See Exposure Controls/Personal Protection -Section 8. Do not attempt rescue of a person over exposed to H2S without wearing approved supplied-air or self-contained breathing equipment. If there is a potential for exceeding one-half the occupational exposure standard, monitoring of hydrogen sulfide levels is required. Since the sense of smell cannot be relied upon to detect the presence of H2S, the concentration should be measured by the use of fixed or portable devices.
Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

General Storage Information: DO NOT USE OR STORE near heat, sparks, flames, or hot surfaces . USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use. When working with this material, the minimal oxygen content should be 19.5% by volume under normal atmospheric pressure.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:
Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:
Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits. Use explosion-proof ventilation equipment.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: Wear eye protection such as safety glasses, chemical goggles, or faceshields if engineering controls or work practices are not adequate to prevent eye contact. Wear protective equipment to prevent eye contact. Selection of protective equipment may include safety glasses, chemical goggles, face shields, or a combination depending on the work operations conducted.

Skin Protection: Wear protective clothing if engineering controls or work practices are not adequate to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Suggested materials for protective gloves include: Wear protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Suggested materials for protective gloves include: Butyl, Neoprene, Teflon.

Respiratory Protection:

Wear an approved positive pressure air-supplying respirator unless ventilation or other engineering controls are adequate to maintain a minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Determine if airborne concentrations are below the occupational exposure limit for hydrogen sulfide. If not, wear an approved positive pressure air-supplying respirator. For more information on hydrogen sulfide, see Chevron MSDS No. 301. When used as a fuel, this material can produce carbon monoxide in the exhaust. Determine if airborne concentrations are below the occupational exposure limit for carbon monoxide. If not, wear an approved positive-pressure air-supplying respirator.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Component	Agency	TWA	STEL	Ceiling	Notation
Waste gases, refinery vent	Not Applicable	--	--	--	--
Hydrogen sulfide	ACGIH	10 ppm (weight)	15 ppm (weight)	--	--
Hydrogen sulfide	CVX	5 ppm	15 ppm	--	--
Hydrogen sulfide	OSHA Z-2	--	--	20 ppm (weight)	--

Consult local authorities for appropriate values.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Colorless
Physical State: Gas
Odor: Rotten egg odor
Odor Threshold: No data available
pH: Not Applicable
Vapor Pressure: Not Applicable
Vapor Density (Air = 1): >1
Initial Boiling Point: Not Applicable
Solubility: No data available
Freezing Point: Not Applicable
Density: Not Applicable

Decomposition temperature: No Data Available
Octanol/Water Partition Coefficient: No data available

FLAMMABLE PROPERTIES:
Flammability (solid, gas): No Data Available

Flashpoint: < -7 °C (< 20 °F)
Autoignition: 260 °C (500 °F)
Flammability (Explosive) Limits (% by volume in air): Lower: 4 Upper: 44

SECTION 10 STABILITY AND REACTIVITY

Reactivity: This material is not expected to react.
Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Conditions to Avoid: Avoid contact with halogens.
Incompatibility With Other Materials: Not applicable
Hazardous Decomposition Products: None known (None expected)
Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects
Serious Eye Damage/Irritation: The eye irritation hazard is based on evaluation of data for similar materials.

Skin Corrosion/Irritation: The skin irritation hazard is based on evaluation of data for similar materials.

Skin Sensitization: The skin sensitization hazard is based on evaluation of data for similar materials.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.
Acute Toxicity Estimate (inhalation): 90.77 ppm (volume)

Germ Cell Mutagenicity: The hazard evaluation is based on data for components or a similar material.

Carcinogenicity: The hazard evaluation is based on data for components or a similar material.

Reproductive Toxicity: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Single Exposure: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Repeated Exposure: The hazard evaluation is based on data for components or a similar material.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY
This material is expected to be very toxic to aquatic organisms.
The product has not been tested. The statement has been derived from products of a similar structure and composition.

MOBILITY
No data available.

PERSISTENCE AND DEGRADABILITY
This material is expected to be readily biodegradable. This material is volatile and is expected to partition to air.
The product has not been tested. The statement has been derived from products of a similar structure and composition.

POTENTIAL TO BIOACCUMULATE
Bioconcentration Factor: No data available.
Octanol/Water Partition Coefficient: No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by international, country, or local laws and regulations.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Description: CONTACT THE CHEVRON HAZMAT HELP LINE (925) 842-8659 OR DGHAZMAT@CHEVRON.COM FOR SHIPPING INSTRUCTIONS

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:
Not applicable

SECTION 15 REGULATORY INFORMATION

EPCRA 311/312 CATEGORIES:

1.	Immediate (Acute) Health Effects:	YES
2.	Delayed (Chronic) Health Effects:	NO
3.	Fire Hazard:	YES
4.	Sudden Release of Pressure Hazard:	YES
5.	Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK

07=PA RTK

The following components of this material are found on the regulatory lists indicated.
Hydrogen sulfide 03, 05, 06, 07

CHEMICAL INVENTORIES:
All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), TSCA (United States).

SECTION 16 OTHER INFORMATION

NFPA RATINGS: Health: 3 Flammability: 4 Reactivity: 0

HMIS RATINGS: Health: 3 Flammability: 4 Reactivity: 0
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT: This revision updates the following sections of this Safety Data Sheet: 1-16
Revision Date: FEBRUARY 02, 2015

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving

it shall make his own determination of the suitability of the material for his particular purpose.