

# Material Safety Data Sheet

## J. R. Simplot Company

Trade Name: Bio Gas Portage la Prairie  
Registration No: None

M77625

### SECTION 1

### CHEMICAL PRODUCT AND COMPANY INFORMATION

**Manufacturer or Formulator:** J.R. Simplot Company  
P.O. Box: 1180  
Portage La Prairie, Manitoba R1N 3J9

**Product Name:** Bio Gas Portage la Prairie  
**Common Name:** Bio Gas  
**Chemical Type:** Flammable Gas

**Emergency Phone - Chemtrec:** 1-800-424-9300

### SECTION 2

### COMPOSITION INFORMATION

| Chemical Name and Synonyms                           | C.A.S. No. | Chemical Formula | TLV    | PEL                        |                  |
|--|------------|------------------|--------|----------------------------|------------------|
| This product is a blend of the following ingredients |            |                  |        |                            |                  |
| Methane  | 74-82-8    | CH <sub>4</sub>  | 60-80% | 1000 ppm                   | ---              |
| Carbon Dioxide                                       | 124-38-9   | CO <sub>2</sub>  | 20-30% | 5000 ppm, (30000 ppm STEL) | 5000 ppm         |
| Hydrogen Sulfide                                     | 7783-06-4  | H <sub>2</sub> S | 0-2%   | 10 ppm, (15 ppm STEL)      | 20 ppm (ceiling) |
| Water Vapor  |            | H <sub>2</sub> O | 1-4%   | ---                        | ---              |

### SECTION 3

### HAZARDS IDENTIFICATION

**Ingestion:** Ingestion of harmful amounts is unlikely.

**Inhalation:** Nausea, vomiting, difficulty breathing, irregular heartbeat, headache, drowsiness, fatigue, dizziness, disorientation, mood swing, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, brain damage, coma, death.

**Eye Contact:** Irritation, sensitivity to light, visual disturbances. May cause eye damage in long term exposure.

**Skin Absorption:** Not normally absorbed through the skin.

**Skin Contact:** Irritation. May cause skin disorders in long term exposure.

### SECTION 4

### FIRST AID MEASURES

**Ingestion:** If large amount is ingested, seek medical attention immediately.

**Inhalation:** If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

**Eyes:** Flush eyes with running water for at least 15 minutes. Seek medical attention immediately.

**Skin:** Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

**Notes to Physician:** Consult standard literature. Treatment based on the sound judgment of the physician and the individual reactions of the patient.

### SECTION 5

### FIRE FIGHTING MEASURES

**Extinguishing Media:** Use extinguishing agents appropriate for surrounding fire or regular dry chemical. Large fires: Use regular foam or flood with fine water spray.

**Special Fire Fighting Procedures:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

**Unusual Fire and Explosion Hazards:** Severe fire hazard. Severe explosion hazard. Vapor/air mixtures are explosive above flash point. Vapors or gases may ignite. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion.

### SECTION 6

### ACCIDENTAL RELEASE MEASURES

**Environmental Precautions:**

**Steps to be taken in case material is released or spilled:** Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

### SECTION 7

### HANDLING AND STORAGE

**Precautions to be taken in handling and storing:** Avoid heat, flames, sparks and other sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry. Remove sources of ignition. Ventilate closed spaces before entering.

### SECTION 8

### EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ventilation Protection:** Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

**Respiratory Protection:** **Under conditions of frequent use or heavy exposure** - respiratory protection may be needed. Any powered, air-purifying respirator with cartridge(s) providing protection against this substance. Any air-purifying respirator with a full facepiece and a canister providing protection against this substance. Any supplied-air respirator. Any self-contained breathing apparatus with a full facepiece.

**Escape** - Any air-purifying respirator with a full facepiece and a canister providing protection against this substance. Any appropriate escape-type, self contained breathing apparatus. For unknown concentrations or immediately dangerous to life or health - Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive pressure mode in combination with a separate escape supply.

**Eye Protection:** Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Protective Clothing:** Normal clean working clothes.

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**SECTION 9**

**PHYSICAL AND CHEMICAL PROPERTIES**

|                             |   |                                 |                   |
|-----------------------------|---|---------------------------------|-------------------|
| <b>Boiling Point:</b>       | -161.4°C (-258.5°F) (Methane); -60.33°C (-76.59°F) (hydrogen sulfide) | <b>Solubility in Water:</b>     | Slight            |
| <b>Density:</b>             | 0.7168 g/L (Methane); 1.5392 g/L @ 0° Hydrogen Sulfide                | <b>% Volatiles (by volume):</b> | 100               |
| <b>Flashpoint:</b>          | -188°C (-306°F) (Methane)   | <b>Vapor Pressure, mm Hg:</b>   | No data available |
| <b>pH:</b>                  | Not applicable  | <b>Reaction with Water:</b>     | Nonreactive       |
| <b>Appearance:</b>          | Colorless gas   |                                 |                   |
| <b>Extinguishing Media:</b> | Use media suitable to extinguish source of fire.                      |                                 |                   |

**SECTION 10**

**STABILITY AND REACTIVITY**

|   |   |
|---|---|
| <b>Stability (Normal Conditions):</b>       | Stable at normal temperatures and pressure.   |
| <b>Conditions to Avoid:</b>                 | Avoid heat, sparks, flames or other sources of ignition.  |
| <b>Incompatibility (Material to Avoid):</b> | Combustible materials, halogens, oxidizing materials, metal salts, reducing agents, metal carbide, metals, bases, potassium, sodium |
| <b>Hazardous Decomposition Products:</b>    | Oxides of carbon and oxides of sulfur   |
| <b>Hazardous Polymerization:</b>            | Will not occur  |

**SECTION 11**

**TOXICOLOGY**

|                         |  |
|-------------------------|--|
| <b>Methane</b>          | 50 pph/2 hour(s) inhalation-mouse LC50 |
| <b>Hydrogen Sulfide</b> | 444 ppm inhalation-rat LC50            |

**SECTION 12**

**ECOLOGICAL INFORMATION**

|                         |   |
|-------------------------|---|
| <b>Hydrogen Sulfide</b> | 14.9 ug/L 96 hour(s) LC50 (Mortality) Fathead minnow (Pimephales promelas), 9730 ug/L 1.5 hour(s) (Mortality) Mediterranean mussel (Mytilus galloprovincialis). Highly toxic to aquatic life. |
| <b>Carbon Dioxide</b>   | 150000 ug/L 48 day(s) (Mortality) Brown trout (Salmo trutta)  |

**SECTION 13**

**DISPOSAL CONSIDERATIONS**

|                                   |   |
|-----------------------------------|---|
| <b>Waste Disposal Procedures:</b> | Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): U135, D001. |
|-----------------------------------|---|

**SECTION 14**

**TRANSPORT INFORMATION**

|                       |   |
|-----------------------|---|
| <b>Shipping name:</b> | Not Applicable. THIS MATERIAL WILL NOT BE TRANSPORTED |
|-----------------------|---|

**SECTION 15**

**REGULATORY INFORMATION**

|   |          |         |          |         |         |          |
|---|----------|---------|----------|---------|---------|----------|
| <b>Carcinogenicity:</b>   | by IARC? | Yes ( ) | No ( X ) | by NTP? | Yes ( ) | No ( X ) |
| SARA Title III Section 302 Extremely Hazardous Substances (40 CFR 355.30) - Hydrogen Sulfide: 500 LBS TPQ |          |         |          |         |         |          |

**SECTION 16**

**OTHER INFORMATION**

|                                   |   |                         |               |                |
|-----------------------------------|---|-------------------------|---------------|----------------|
| <b>Flash Point (Test Method):</b> | -188°C (Methane, test method unavailable) | <b>Flammable Limits</b> | <b>LOWER</b>  | <b>UPPER</b>   |
| <b>Autoignition Temperature:</b>  | 537°C (Methane)                           | (% BY VOLUME)           | 5.0 (Methane) | 15.0 (Methane) |

MSDS Version Number: 1

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