

Safety Data Sheet SPECIALTY - ARGON 90% METHANE 10%

Central McGowan 123 Roosevelt Road, St. Cloud, MN, 56301

Section 1: Product and Company Identification

Central McGowan 123 Roosevelt Road, St. Cloud, MN, 56301

Product Code: SPECIALTY - ARGON 90% METHANE 10% Synonyms: SPG ARG 90% CH4 10% K Recommended Use: Usage Restrictions:

Section 2: Hazards Identification



Hazard Classification: Hazard Statements: Precautionary Statements Storage: Gases Under Pressure Contains gas under pressure; may explode if heated

Protect from sunlight. Store in well-ventilated place.

Section 3: Composition/Information on Ingredients

| | CAS # | Concentration |
|---------|-----------|---------------|
| Argon | 7440-37-1 | 90% |
| Methane | 74-82-8 | 10% |

| | Chemical Substance | Chemical Family | Trade Names |
|---------|--------------------|--------------------------|--|
| Argon | ARGON, COMPRESSED | Inorganic gases | ARGON; UN 1006; AR |
| Methane | METHANE, | Hydrocarbons, Aliphatic, | FIRE DAMP; MARSH GAS; METHYL HYDRIDE; NATURAL GAS; |
| | COMPRESSED GAS | Saturated | METHANE; UN 1971; R50; CH4 |

Section 4: First Aid Measures

| | Skin Contact | Eye Contact | Ingestion | Inhalation | Note to Physicians |
|---------|--|--|--|---|--|
| Argon | Not applicable route of exposure | Flush eyes with plenty of water. | Not applicable route of exposure | 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. | For inhalation, consider oxygen. |
| Methane | Wash exposed skin with soap and water. | Flush eyes with plenty of water. | If a large amount is swallowed, get medical attention. | 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. | For inhalation, consider oxygen. |

Section 5: Fire Fighting Measures

| | Suitable Extinguishing Media | Products of Combustion | Protection of Firefighters |
|---------|--|---|--|
| Argon | Non-flammable gas | Not applicable | ■ N/a ■ N/A |
| Methane | Carbon dioxide, regular dry chemical Large fires: Use regular foam or flood with fine water spray. | Carbon monoxide, carbon dioxide, water | Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece. Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece. |

Section 6: Accidental Release Measures

| | Personal Precautions | Environmental Precautions | Methods for Containment |
|---------|--|---|--|
| Argon | Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas. | None known. | Stop leak if possible without personal risk. |
| Methane | Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering. | Avoid heat, flames, sparks and other sources of ignition. | Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition. |

| | Methods for Cleanup | Other Information |
|---------|--|-------------------|
| Argon | Leaks may be detected by a soapy-water solution. | |
| Methane | Not available | NOT AVAILABLE |

Section 7: Handling and Storage

| | Handling | Storage |
|---------|---|--|
| Argon | Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances. | Avoid using in confined spaces. |
| Methane | Store and handle in accordance with all current regulations and standards. Grounding and bonding required. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. | Keep separated from incompatible substances. |

Section 8: Exposure Controls/Personal Protection

| | Exposure Guidelines |
|---------|--|
| Argon | ARGON, COMPRESSED: ARGON: ACGIH (simple asphyxiant) |
| Methane | METHANE, COMPRESSED GAS: ALIPHATIC HYDROCARBON GASES ALKANE (C1-C4): 1000 ppm ACGIH TWA METHANE: No |
| | occupational exposure limits established. ALIPHATIC HYDROCARBON GASES ALKANE (C1-C4): 1000 ppm ACGIH TWA |

Engineering Controls Handle only in fully enclosed systems.

| | Eye Protection | Skin Protection | Respiratory Protection |
|---------|--|---|---|
| Argon | Eye protection not required, but recommended. | Protective clothing is not required. Wear appropriate chemical resistant gloves. | N/a |
| Methane | Eye protection not required, but recommended. | Protective clothing is not required. Wear appropriate chemical resistant gloves. | Respiratory protection may be needed for frequent or heavy exposure. Any self-contained breathing apparatus with a full facepiece. |

General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

Section 9: Physical and Chemical Properties

| | Physical State | Appearance | Color | Change in Appearance | Physical Form | Odor |
|---------|----------------|------------|-----------|-------------------------|---------------|----------|
| Argon | Gas | Colorless | Colorless | N/A | Gas | Odorless |
| Methane | Gas | Colorless | Colorless | N/A | Gas | Odorless |

| | Taste | Flash Point | Flammability | Partition Coefficient | Autoignition Temperature | Upper Explosive Limits |
|---------|-----------|-----------------|---------------|---|-----------------------------|---------------------------|
| Argon | Tasteless | Not flammable | | | Nonflammable | Nonflammable |
| Methane | Tasteless | -369 F (-223 C) | Not available | 724.44 (log = 2.87) (estimated from water solubility) | 999 F (537 C) | 15% |

| | Lower Explosive Limits | Boiling Point | Freezing Point | Vapor Pressure | Vapor Density | Specific Gravity |
|---------|---------------------------|-----------------|-----------------|----------------------|---------------|------------------|
| Argon | Nonflammable | -303 F (-186 C) | -308 F (-189 C) | 500 mmHg @ -190 C | 1.38 (Air=1) | Not applicable |
| Methane | 5% | -260 F (-162 C) | -297 F (-183 C) | 760 mmHg @ -161 C | 0.555 (Air=1) | Not applicable |

| | Water Solubility | рН | Odor Threshold | Evaporation Rate | Viscosity | Molecular Weight |
|---------|------------------|----------------|----------------|------------------|----------------------|---------------------|
| Argon | 3.36% @ 20 C | Not applicable | Not available | Not applicable | 0.0225 cP @ 25 C | 39.948 |
| Methane | 3.5% @ 17 C | Not applicable | Not available | Not applicable | 0.01118 cP @ 27 C | 16.04 |

| | Molecular Formula | Density | Weight per Gallon | Volatility by Volume | Volatility | Solvent Solubility |
|---------|----------------------|-----------------|----------------------|-------------------------|----------------|---|
| Argon | AR | 1.784 g/L @ 0 C | Not available | 100% | Not applicable | Soluble : Organic solvents |
| Methane | C-H4 | 0.717 g/L @ 0 C | Not available | Not applicable | Not applicable | Soluble : Alcohol, ether, benzene, organic solvents |

Section 10: Stability and Reactivity

| | Stability | Conditions to Avoid | Incompatible Materials |
|-------|-----------------------------------|----------------------------------|------------------------|
| Argon | Stable at normal temperatures and | Protect from physical damage and | No data available. |
| | pressure. | heat. Containers may rupture or | |
| | | explode if exposed to heat. | |

| | Stability | Conditions to Avoid | Incompatible Materials |
|---------|-----------------------------------|--|--------------------------------|
| Methane | Stable at normal temperatures and | Avoid heat, flames, sparks and other | Halogens, oxidizing materials, |
| | pressure. | sources of ignition. Containers may | combustible materials |
| | | rupture or explode if exposed to heat. | |

| | Hazardous Decomposition Products | Possibility of Hazardous Reactions |
|---------|----------------------------------|------------------------------------|
| Argon | No data available. | Will not polymerize. |
| Methane | Oxides of carbon | Will not polymerize. |

Section 11: Toxicology Information

Acute Effects

| | Oral LD50 | Dermal LD50 | Inhalation |
|---------|-----------------|-----------------|---|
| Argon | Not established | Not established | Nausea, vomiting, difficulty breathing, irregular heartbeat, headache, dizziness, disorientation, mood swings, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma |
| Methane | Not available | Not available | Nausea, vomiting, difficulty breathing, irregular heartbeat, headache, drowsiness, fatigue, dizziness, disorientation, mood swings, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma |

| | Eye Irritation | Skin Irritation | Sensitization |
|---------|---|---|----------------------|
| Argon | No information on significant adverse effects | No information on significant adverse effects | |
| Methane | No information on significant adverse effects | No information on significant adverse effects | Difficulty breathing |

Chronic Effects

| | Carcinogenicity | Mutagenicity | Reproductive Effects | Developmental Effects |
|---------|-----------------|-----------------|----------------------|-----------------------|
| Argon | Not established | Not established | Not established | No data |
| Methane | Not available | Not available | Not available | No data |

Section 12: Ecological Information

Fate and Transport

| | Eco toxicity | Persistence / Degradability | Bioaccumulation / Accumulation | Mobility in Environment |
|---------|--|---|--|--|
| Argon | Fish toxicity: Not available Invertibrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available | Not available | Not available | Not available |
| Methane | Fish toxicity: Not available Invertibrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not | Relatively non-persistent in the environment. Moderately volatile from water. | Accumulates very little in the bodies of living organisms. | Not expected to leach through the soil or the sediment. |

| available | | |
|-----------|--|--|

Section 13: Disposal Considerations

| Argon | Dispose in accordance with all applicable regulations. |
|---------|--|
| Methane | Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste |
| | Number(s): D001. |

Section 14: Transportation Information

U.S. DOT 49 CFR 172.101

DOT Information For This Mixture

| Shipping Name | Compressed gas, n.o.s. (Argon, Methane) |
|--------------------|--|
| UN Number | UN1956 |
| Hazard Class | 2.2 |
| Hazard Information | NonFlammable Gas |

Individual Component Information

| | Proper Shipping Name | ID Number | Hazard Class or Division | Packing Group | Labeling Requirements | Passenger Aircraft or Railcar Quantity Limitations | Cargo Aircraft Only Quantity Limitations | Additional Shipping Description |
|---------|----------------------------|--------------|--------------------------------|-------------------|--------------------------|---|--|---------------------------------------|
| Argon | Argon, compressed | UN1006 | 2.2 | Not applicable | 2.2 | 75 kg or L | 150 kg | N/A |
| Methane | Methane. | UN1971 | 2.1 | Not | 2.1 | Forbidden | 150 kg | N/A |
| wethane | compressed | UNIST | 2.1 | applicable | 2.1 | FUIDIQUEIT | 150 Kg | N/A |

Canadian Transportation of Dangerous Goods

| | Shipping Name | UN Number | Class | Packing Group / Risk Group |
|---------|---------------------|-----------|-------|----------------------------|
| Argon | Argon, compressed | UN1006 | 2.2 | Not applicable |
| Methane | Methane, compressed | UN1971 | 2.1 | Not applicable |

Section 15: Regulatory Information

U.S. Regulations

| | CERCLA Sections | SARA 355.30 | SARA 355.40 |
|---------|-----------------|----------------|----------------|
| Argon | Not regulated. | Not regulated. | Not regulated. |
| Methane | Not regulated. | Not regulated. | Not regulated. |

SARA 370.21

| | Acute | Chronic | Fire | Reactive | Sudden Release |
|---------|-------|---------|------|----------|----------------|
| Argon | Yes | No | No | No | Yes |
| Methane | Yes | No | Yes | No | Yes |

SARA 372.65

| Argon | Not regulated. | |
|---------|----------------|--|
| Methane | Not regulated. | |

OSHA Process Safety

| Argon | Not regulated. |
|---------|----------------|
| Methane | Not regulated. |
| | |

| State Regulations | |
|-------------------|-------------------|
| | CA Proposition 65 |
| | |

| Argon | Not regulated. |
|---------|----------------|
| Methane | Not regulated. |

Canadian Regulations

| ounadian Rogalati | | | | |
|-------------------|----------------------|--|--|--|
| | WHMIS Classification | | | |
| Argon | A | | | |
| Methane | A, B1 | | | |

National Inventory Status

| | US Inventory (TSCA) | TSCA 12b Export Notification | Canada Inventory (DSL/NDSL) | |
|---------|----------------------|------------------------------|-----------------------------|--|
| Argon | Listed on inventory. | Not listed. | Listed on inventory. | |
| Methane | Listed on inventory. | Not listed. | Listed on inventory. | |

Section 16: Other Information

| | NFPA Rating | |
|---|---|--|
| Argon | HEALTH=0 FIRE=0 REACTIVITY=0 SPECIAL=SA | |
| Methane | HEALTH=0 FIRE=4 REACTIVITY=0 | |
| 0 - minimal bazard 1 - slight bazard 2 - moderate bazard 3 - sovere bazard 4 - extreme bazard | | |

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard