

1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|---|---|
| Product Name | Neon Gas, Enriched Neon |
| Chemical Formula | Ne |
| Molecular Weight | 20.1797 g/mol |
| CAS No. | 7440-01-9 |
| Supplier Address* | ISOFLEX USA PO Box 29475 San Francisco CA 94129 United States |
| Telephone | +1 415-440-4433 |
| Fax | +1 415-563-4433 |
| Emergency Phone Number (both supplier and manufacturer) | Infotrac/ +1 800-535-5053 *May include subsidiaries or affiliate companies/divisions |
| Email | iusa@isoflex.com |
| Website | www.isoflex.com |
| Preparation Information | ISOFLEX USA Product Safety +1 415-440-4433 |

2. HAZARDS IDENTIFICATION

Emergency Overview:

| | |
|-----------------------|---|
| Appearance: | Colorless, odorless gas |
| Major Health Hazards: | Difficulty breathing |
| Physical Hazards: | Containers may rupture or explode if exposed to heat. |
| OSHA Hazards: | Compressed gas |
| GHS Classification: | Gases under pressure (Compressed gas) |

NFPA Ratings: (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health Hazard = 1 Flammability = 0 Reactivity = 0



HMIS Ratings: (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health Hazard = 0 Flammability = 1 Physical Hazard = 1

| | |
|------------------------|----------|
| HEALTH HAZARD | 0 |
| FLAMMABILITY | 1 |
| PHYSICAL HAZARD | 1 |

Potential Health Effects

| | |
|---------------------|---|
| <i>Inhalation</i> | <i>Short-term exposure:</i> May be harmful if inhaled. May cause nausea, vomiting, difficulty breathing, irregular heartbeat, headache, dizziness, disorientation, mood swings, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma. <i>Long-term exposure:</i> No information available |
| <i>Skin Contact</i> | <i>Short-term exposure:</i> May be harmful if absorbed through skin. May cause skin irritation or frostbite. <i>Long-term exposure:</i> No information available. |
| <i>Eye Contact</i> | <i>Short-term exposure:</i> May cause eye irritation or frostbite. <i>Long-term exposure:</i> No information available. |
| <i>Ingestion</i> | <i>Short-term exposure:</i> Ingestion of harmful amounts is unlikely, frostbite. <i>Long-term exposure:</i> Ingestion of harmful amounts is unlikely. |

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name: Neon Gas
CAS No.: 7440-01-9
Chemical Formula: Ne
Molecular Weight: 20.1797 g/mol

No ingredients are hazardous, according to OSHA criteria.

4. FIRST AID MEASURES

| | |
|----------------------------|---|
| <i>General Advice</i> | Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. |
| <i>Inhalation Exposure</i> | Supply fresh air. If required, provide artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention. |
| <i>Skin Exposure</i> | If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 °F; 41-46 °C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Seek immediate medical attention. |
| <i>Eye Exposure</i> | Rinse opened eye for several minutes under running water. Then consult a doctor. |
| <i>Oral Exposure</i> | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek medical attention. |

5. FIREFIGHTING MEASURES

Fire and Explosion Hazards

Negligible fire hazard. Containers may rupture or explode if exposed to heat.

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Further Information

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile).

Firefighters

Protective Equipment

Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods for Cleaning Up

Clean up promptly by vacuum. Stay upwind and keep out of low areas.

7. HANDLING AND STORAGE

Storage

Keep container lightly closed in a dry and well-ventilated place. Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

No occupational exposure limits established

Personal Protective Equipment

Ventilation

Based on available information, additional ventilation is not required. Ensure compliance with applicable exposure limits.

Eye Protection

For gas: Eye protection not required, but recommended. For liquid: Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye-wash fountain and quick-drench shower in the immediate work area.

Body Protection

For gas: Protective clothing is not required. For liquid: Wear appropriate protective, cold-insulating clothing.

Hand Protection

Wear insulated gloves.

Respirator

Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use. For *Unknown Concentrations or Immediately Dangerous to Life or Health* - Any supplied-air respirator with a full face-piece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode. Any self-contained breathing apparatus that has a full face-piece and is operated in a pressure-demand or other positive-pressure mode.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

| | |
|-----------------------|-----------|
| <i>Physical State</i> | Gas |
| <i>Color</i> | Colorless |
| <i>Odor</i> | Odorless |
| <i>Taste</i> | Tasteless |

Safety Data

| | | | |
|------------------------|------------------------|--------------------------------|-------------------|
| Molecular Weight: | 20.179 g/mol | pH: | N/A |
| BP/BP Range: | -411 °F (-246 °C) | MP/MP Range: | -416 °F (-249 °C) |
| Freezing Point: | N/A | Solubility in Water: | Slightly soluble |
| Vapor Density: | 0.6964 | Saturated Vapor Concentration: | N/A |
| SG/Density: | N/A | Density: | 0.6964 |
| Odor Threshold: | N/A | Volatile %: | N/A |
| VOC Content: | N/A | Water Content: | N/A |
| Solvent Content: | N/A | Evaporation Rate: | N/A |
| Viscosity: | 0.03181 cP @ 26.8 CN/A | Surface Tension: | N/A |
| Partition Coefficient: | N/A | Decomposition Temperature: | N/A |
| Flash Point: | N/A | Explosion Limits: | N/A |
| Flammability: | N/A | Autoignition Temperature: | N/A |
| Refractive Index: | N/A | Optical Rotation: | N/A |
| Miscellaneous Data: | N/A | | |

10. STABILITY AND REACTIVITY

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|---|--|
| <i>Stability</i> | Stable at normal temperatures and pressure |
| <i>Conditions to Avoid</i> | Protect from physical damage and heat. Containers may rupture or explode if exposed to heat. |
| <i>Polymerization</i> | Will not polymerize |
| <i>Possibility of Hazardous Reactions</i> | No data available |
| <i>Materials to Avoid</i> | Strong oxidizing agents |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

| | |
|--|-------------------|
| <i>Oral LD50</i> | No data available |
| <i>Inhalation LC50</i> | No data available |
| <i>Dermal LD50</i> | No data available |
| <i>Other Information</i> | No data available |
| <i>Skin Irritation</i> | No data available |
| <i>Serious Eye Irritation</i> | No data available |
| <i>Respiratory or Skin Sensitization</i> | No data available |
| <i>Germ Cell Mutagenicity</i> | No data available |

Carcinogenicity

| | |
|--|---|
| <i>IARC</i> | No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC. |
| <i>ACGIH</i> | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. |
| <i>NTP</i> | No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |
| <i>OSHA</i> | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |
| <i>Reproductive Toxicity</i> | No data available |
| <i>Teratogenicity</i> | No data available |
| <i>Specific Target Organ Toxicity / Single Exposure (Globally Harmonized System)</i> | No data available |
| <i>Specific Target Organ Toxicity / Repeated Exposure (Globally Harmonized System)</i> | No data available |
| <i>Aspiration Hazard</i> | No data available |

Potential Health Effects

| | |
|---------------------------------------|---|
| <i>Inhalation</i> | May be harmful if inhaled; may cause respiratory tract irritation |
| <i>Ingestion</i> | May be harmful if swallowed |
| <i>Skin</i> | May be harmful if absorbed through skin; may cause skin irritation |
| <i>Eyes</i> | May cause eye irritation |
| <i>Signs and Symptoms of Exposure</i> | Nausea, headache, vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |
| <i>Synergistic Effects</i> | No data available |
| <i>Additional Information</i> | RTECS: Not available |

12. ECOLOGICAL INFORMATION

| | |
|--------------------------------------|-------------------|
| <i>Toxicity</i> | No data available |
| <i>Persistence and Degradability</i> | No data available |
| <i>Bioaccumulative Potential</i> | No data available |
| <i>Mobility in Soil</i> | No data available |
| <i>PBT and vPvB Assessment</i> | No data available |
| <i>Other Adverse Effects</i> | No data available |

13. DISPOSAL CONSIDERATIONS

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| <i>Product</i> | Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dispose of as unused product. |
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14. TRANSPORT INFORMATION**DOT (US)**

| | |
|---------------------------------|------------------|
| <i>Proper Shipping Name</i> | Neon, compressed |
| <i>UN No.</i> | 1065 |
| <i>Class</i> | 2.2 |
| <i>Marine Pollutant</i> | No |
| <i>Poison Inhalation Hazard</i> | No |

IMDG

| | |
|-----------------------------|------------------|
| <i>Proper Shipping Name</i> | Neon, compressed |
| <i>UN No.</i> | 1065 |
| <i>Class</i> | 2.2 |
| <i>Marine Pollutant</i> | No |

IATA

| | |
|-----------------------------|------------------|
| <i>Proper Shipping Name</i> | Neon, compressed |
| <i>UN No.</i> | 1065 |
| <i>Class</i> | 2.2 |

15. REGULATORY INFORMATION

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|---------------------|----------------|
| OSHA Hazards | Compressed Gas |
|---------------------|----------------|

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|----------------------------|---|
| SARA 302 Components | No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. |
|----------------------------|---|

| | |
|----------------------------|---|
| SARA 313 Components | This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. |
|----------------------------|---|

SARA 311/312 Hazards

| | |
|-----------------------|-----|
| <i>Acute</i> | Yes |
| <i>Chronic</i> | No |
| <i>Fire</i> | No |
| <i>Reactive</i> | No |
| <i>Sudden Release</i> | Yes |

| | |
|---------------------------------------|--|
| California Prop. 65 Components | This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm. |
|---------------------------------------|--|

| | |
|--|---------------|
| OSHA Process Safety (29 CFR 1910.119) | Not regulated |
|--|---------------|

| | |
|-----------------------------|-------------------------|
| Canadian Regulations | WHMIS CLASSIFICATION: A |
|-----------------------------|-------------------------|

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|----------------------------------|--|
| National Inventory Status | U.S. Inventory (TSCA): Listed on inventory |
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| | |
|---------------------------------------|------------|
| TSCA 12(b) Export Notification | Not listed |
|---------------------------------------|------------|

16. OTHER INFORMATION

| | |
|------------------------|--|
| <i>Prepared By</i> | ISOFLEX USA PO Box 29475 San Francisco CA 94129 United States |
| <i>Issuing Date</i> | November 17, 2014 |
| <i>Revision Date</i> | August 1, 2021 |
| <i>Revision Number</i> | 2 |
| <i>Revision Note</i> | Required review and update |

ISOFLEX USA's Commonly Used Abbreviations and Acronyms*

| | |
|--------|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| ADR | European Agreement Concerning the International Carriage of Dangerous Goods by Road |
| AICS | Australian Inventory of Chemical Substances |
| ALARA | As Low As Is Reasonably Achievable |
| AMU | Atomic Mass Unit |
| ANSI | American National Standards Institute |
| BLS | Basic Life Support |
| BOD5 | Biochemical Oxygen Demand |
| CAM | Continuous Air Monitor |
| CAS | Chemical Abstracts Service (division of the American Chemical Society) |
| CEN | European Committee for Standardization |
| CERCLA | Comprehensive Environmental Response Compensation and Liability Act |
| CLP | Classification, Labelling and Packaging (European Union) |
| COD | Chemical Oxygen Demand |
| CPR | Controlled Products Regulations (Canada) |
| CWA | Clean Water Act (USA) |
| DAC | Derived Air Concentration (USA) |
| DOE | United States Department of Energy (USA) |
| DOT | United States Department of Transportation (USA) |
| DSL | Domestic Substances List (Canada) |
| EC50 | Half Maximal Effective Concentration |
| ECL | Korean Existing Chemicals List |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| EHS | Environmentally Hazardous Substance |
| ELINCS | European List of Notified Chemical Substances |
| EMS | Emergency Response Procedures for Ships Carrying Dangerous Goods |
| EPA | Environmental Protection Agency (USA) |
| EPCRA | Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 |
| GHS | Globally Harmonized System |
| HMIS | Hazardous Materials Identification System (USA) |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IBC | Intermediate Bulk Containers |
| ICAO | International Civil Aviation Organization |
| IDLH | Immediately Dangerous to Life or Health |
| IECSC | Inventory of Existing Chemical Substances Produced or Imported in China |
| IMDG | International Maritime Code for Dangerous Goods |
| LC50 | Lethal concentration, 50 percent |
| LD50 | Lethal dose, 50 percent |
| LDLO | Lethal Dose Low |
| LOEC | Lowest-Observed-Effective Concentration |

| | |
|--------|---|
| MARPOL | International Convention for the Prevention of Pollution from Ships |
| MSHA | Mine Safety and Health Administration (USA) |
| NCRP | National Council on Radiation Protection & Measurements (USA) |
| NDSL | Non-Domestic Substances List (Canada) |
| NFPA | National Fire Protection Association (USA) |
| NIOSH | National Institute for Occupational Safety and Health (USA) |
| NOEC | No Observed Effect Concentration |
| N.O.S. | Not Otherwise Specified |
| NRC | Nuclear Regulatory Commission (USA) |
| NTP | National Toxicology Program (USA) |
| OSHA | Occupational Safety and Health Administration (USA) |
| PBT | Persistent Bioaccumulative and Toxic Chemical |
| PEL | Permissible Exposure Limit |
| PICCS | Philippines Inventory of Chemicals and Chemical Substances |
| PIH | Poisonous by Inhalation Hazard |
| RCRA | Resource Conservation and Recovery Act (USA) |
| RCT | Radiation Control Technician |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals (Europe) |
| RID | Regulations Concerning the International Transport of Dangerous Goods by Rail |
| RQ | Reportable Quantity |
| RTECS | Registry of Toxic Effects of Chemical Substances |
| SARA | Superfund Amendments and Reauthorization Act (USA) |
| SNUR | Significant New Use Rule (TSCA) |
| TDG | Transportation of Dangerous Goods (Canada) |
| TIH | Toxic by Inhalation Hazard |
| TLV | Threshold Limit Value |
| TPQ | Threshold Planning Quantity |
| TSCA | Toxic Substances Control Act |
| TWA | Time Weighted Average |
| UN | United Nations (Number) |
| VOC | Volatile Organic Compound |
| vPvB | Very Persistent Very Bioaccumulative Chemical |
| WGK | Wassergefährungsklassen (Germany: Water Hazard Classes) |
| WHMIS | Workplace Hazardous Materials Information System |

*One or more of the above-listed items may not appear in this document.

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