##  Safety Data Sheet

# Argon C16/O3

## Section 1: IDENTIFICATION of the MATERIAL and SUPPLIER

GHS Product Identifier Argon, Carbon Dioxide, Oxygen mixed

Product Name: Argon, Carbon Dioxide, Oxygen compressed

Chemical Name: Argon 81%, Carbon Dioxide 16%, Oxygen 3%

Synonym(s): SPEED SHIELD 16/3; ARGON SPEED SHIELD 16/3

Uses: Shielding Gas for Welding; Industrial Applications.

Supplier Name: Speed Gas Pty Ltd

Address: 49 Chard Road, Brookvale, NSW 2100

Telephone: 1300 GAS NOW, 02 9907 7999

Fax: 02 9907 7666

Emergency: 24hr EMERGENCY TELEPHONE (Australia Only) 1300 994 556

Emergency: DIAL 000

Website: [www.speedgas.com.au](http://www.speedgas.com.au)

## Section 2: HAZARD(S) IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

CLASSIFIED AS DANGEROUS GOODS BY THE CRITERIA OF THE ADG CODE

GHS Classification: Gases Under Pressure: Compressed Gas

Label Elements:

Signal Word: WARNING

Pictogram(s):



Hazard Statements: H280 – Contains gas under pressure; May explode if heated.

Prevention Statements: None allocated

Response Statements: None allocated

Storage Statements: P410 + P403 Protect from sunlight. Store in a well-ventilated place.

Disposal Statements: None allocated

Other Hazards: Asphyxiant. In addition to any other important health or physical hazards, this product may displace oxygen and cause rapid suffocation.

## Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substances / Mixtures

|  |  |  |  |
| --- | --- | --- | --- |
| Ingredient | CAS Number | EC Number | Content |
| ARGON | 7440-37-1 | 231-147-0 | >81% |
| CARBON DIOXIDE | 124-38-9 | 204-696-9 | 16% |
| OXYGEN | 7782-44-7 | 231-956-9 | 3% |

 There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## Section 4: FIRST AID MEASURES

### Description of First Aid Measures

Eyes: Not applicable.

Inhaled: Remove from exposure, but avoid becoming a casualty. To protect rescuer, use an Air-line respirator or Self-Contained Breathing Apparatus (SCBA) Apply artificial respiration if not breathing. Give Oxygen if available. Rest and keep warm. Obtain medical attention. For advice contact Poisons Information Centre **Ph: 13 11 26** or a doctor.

Skin: Not applicable.

Ingestion: Ingestion is not considered a potential route of exposure.

First Aid Facilities Not applicable

### Most important symptoms and effects, both acute and delayed.

 In high concentrations may cause asphyxiation. Symptoms may include loss of mobility / consciousness. Victim may not be aware of asphyxiation.

### Immediate medical attention and special treatment needed.

 Treat symptomatically. FOR USE

## Section 5: FIRE FIGHTING MEASURES

Extinguishing Media: Use water fog to cool containers from protected area.

Special hazards arising from the substance or mixture:

 Non-Flammable.

Advice for Firefighters: Temperatures in a fire may cause cylinders to rupture. Cool cylinders or containers exposed to fire by applying water from a protected location. Remove cool cylinders from the path of the fire. Evacuate the area if unable to keep cylinders cool. Do not approach cylinders or containers suspected of being hot.

Hazchem Code: 2TE

 2 - Fine Water Spray

 T - Wear full fire kit and breathing apparatus. Dilute spill and run off.

 E – Evacuation of people in and around the immediate vicinity of the incident should be considered.

## Section 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures.

Non-emergency personnel:

 No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid breathing gas. Provide adequate ventilation.

 If the cylinder is leaking, evacuate area of personnel. Inform manufacturer/supplier of leak. Use Personal Protective Equipment (PPE) as detailed in Section 8 of the SDS.

Environmental Precautions:

 Prevent from entering sewers, basements and work pits, or any place where its accumulation can be dangerous.

Methods of cleaning up:

 Carefully move to a well-ventilated area. Allow gas to escape to atmosphere, preferably in an open remote location. Do not attempt to repair leaking valve or cylinder safety devices.

Reference to other sections:

 See Section 8 for Exposure Controls and Section 13 for disposal considerations

## Section 7: HANDLING AND STORAGE

### Precautions for Safe Handling.

 Use safe work practices to avoid inhalation. Use appropriate personal protective equipment (see Section 8). Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement. Contains gas under pressure. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Use equipment rated for cylinder pressure. Close valve after each use and when empty. The uncontrolled release of a gas under pressure may cause physical harm.

### Conditions for safe storage, including any incompatibilities.

 Store cylinders below 45oC upright in a secure enclosure, preferably outside of buildings, protected from direct sunlight. Cylinders should also be stored in a dry, well ventilated area constructed of non-combustible material with firm level floor (preferably concrete). Secure cylinders by chains or similar device to prevent falling over. Keep away from vehicular traffic, emergency exits and other thoroughfares.

Specific end use(s): No information provided.

## 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control Parameters.

Exposure Standards

|  |  |  |  |
| --- | --- | --- | --- |
| Ingredient | Reference | TWA | STEL |
| ppm | mg/m3 | ppm | mg/m3 |
| Argon | SWA (Aus) | Asphyxiant |
| Carbon Dioxide | SWA (Aus) | 5000 9000 30000 54000 |

Biological limits: No biological limit values have been entered for this product.

### Exposure Controls.

Engineering Controls Provide suitable ventilation to minimise or eliminate exposure. Confined areas (e.g. tanks) should be adequately ventilated or gas tested.

### PPE

Eye/Face Wear Safety Glasses

Hands Chemical-resistant, impervious gloves complying with an approved standard should be worn.

Body Personal protective equipment for the body and appropriate footwear should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

|  |  |  |  |
| --- | --- | --- | --- |
|   |    |   |   |

##  Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties.

Appearance: Colourless gas

Odour: Odourless

Flammability: Not Flammable.

Flash Point: Not Relevant

Boiling Point: Not available.

Melting Point: Not available.

Evaporation Rate: Not available.

pH: Not available.

Specific gravity: Not available.

Solubility in Water Slightly soluble.

Vapour Pressure: Not available

Upper explosion limit: Not Relevant

Lower explosion limit: Not Relevant

Partition Coefficient: Not available

Auto-Ignition Temperature: Not available

Decomposition Temperature: Not available

Viscosity Not available

Explosive Properties Not available

Oxidising Properties Not available

Odour Threshold Not available

Volatiles: 100%

## Section 10: STABILITY AND REACTIVITY

### Reactivity.

No specific test data related to reactivity available for this product or its ingredients. Carefully review all information provided in sections below.

### Chemical Stability.

Stable under recommended conditions of storage.

### Possibility of Hazardous Reactions.

Under normal conditions of storage and use, hazardous reactions will not occur.

### Conditions to Avoid.

Avoid contact with incompatible substances.

### Incompatible Materials.

Moist carbon dioxide is corrosive, hence acid resistant materials are required (e.g. stainless steel). Certain properties of some plastics and rubbers may be affected by carbon dioxide (i.e. embrittlement, leaching of plasticisers, etc).

### Hazardous Decomposition Products.

This material will not decompose to form hazardous products other than that already present.

## Section 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects.

Acute Toxicity: Based on available data the classification criteria are not met. Low concentrations of Carbon Dioxide cause increased respiration and headache.

Skin: Not irritating to the skin.

Eyes: Not irritating to the eye.

Sensitisation: Not classified as causing skin or respiratory sensitisation.

Mutagenicity: No significant ingredient is classified as a mutagen.

Carcinogenicity: No significant ingredient is classified as a carcinogen.

Reproductive: No significant ingredient is classified as a reproductive toxin.

STOT Single Exposure: Asphyxiant. Effects are proportional to oxygen displacement. Over exposure may result in dizziness, drowsiness, weakness, fatigue, breathing difficulties and unconsciousness.

STOT Repeated Exposure: Not classified as causing organ damage from repeated exposure.

Aspiration: Not classified as causing aspiration.

## Section 12: ECOLOGICAL INFORMATION

Toxicity. No information provided.

Persistence and Degradability. No information provided.

Bioaccumulative Potential. No information provided.

Mobility in Soil Not applicable.

Other Adverse Effects When discharged to the atmosphere, Carbon Dioxide may contribute to the greenhouse effect.

## Section 13: DISPOSAL CONSIDERATIONS

### Waste Treatment Methods

Waste disposal Cylinders should be returned to the manufacturer or supplier for disposal of contents.

Legislation Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

## Section 14: TRANSPORT INFORMATION

### CLASSIFIED AS DANGEROUS GOODS BY THE CRITERIA OF THE ADG CODE



|  |  |  |  |
| --- | --- | --- | --- |
|  | LAND TRANSPORT(ADG) | SEA TRANSPORT(IMDG / IMO) | AIR TRANSPORT(IATA / ICAO) |
| UN Number | 1956 | 1956 | 1956 |
| Proper Shipping Name | COMPRESSED GAS, N.O.S.(contains Argon) | COMPRESSED GAS, N.O.S.(contains Argon) | COMPRESSED GAS, N.O.S.(contains Argon) |
| Transport Hazard Class | 2.2 | 2.2 | 2.2 |
| Packing Group | None Allocated | None Allocated | None Allocated |

Environmental Hazards No information provided.

### Special Precautions for User

 Hazchem Code 2TE

 GTEPG 2C1

 EMS F-C, S-V

Other Information: Ensure cylinder is separated from driver and that outlet relief device is not obstructed.

## Section 15: REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

### Legislation Specific for the Substance or Mixture.

Poison Schedule: A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications: Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

 The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].

Hazard Codes: None Allocated

Risk Phrases: None Allocated

Safety Phrases: None Allocated

Inventory Listing(s): AUSTRALIA: AICS (Australian Inventory of Chemical Substances)

 All components are listed on AICS, or are exempt.

## Section 16: OTHER INFORMATION

Additional Information The storage of significant quantities of gas cylinders must comply with AS4332 The Storage and Handling of Gases in Cylinders. When using this gas/gas mixture for welding, cutting and associated processes, additional hazards may be generated by the process such as radiation, noise and fume. Risk assessments should be made for each activity to identify and quantify the individual hazards involved.

APPLICATION METHOD Gas regulator of suitable pressure and flow rating fitted to cylinder or manifold with low pressure gas distribution to equipment.

### PERSONAL PROTECTIVE EQUIPMENT GUIDELINES

 The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

### HEALTH EFFECTS FROM EXPOSURE

 It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

## Abbreviations:

ACGIH American Conference of Governmental Industrial Hygienists

CAS # Chemical Abstract Service number - used to uniquely identify chemical compounds

CNS Central Nervous System

EC No. EC No - European Community Number

EMS Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)

GHS Globally Harmonised System

GTEPG Group Text Emergency Procedure Guide

IARC International Agency for Research on Cancer

LC50 Lethal Concentration, 50% / Median Lethal Concentration

LD50 Lethal Dose, 50% / Median Lethal Dose

mg/m³ Milligrams per Cubic Metre

OEL Occupational Exposure Limit

pH relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

ppm Parts Per Million

STEL Short-Term Exposure Limit

STOT-RE Specific target organ toxicity (repeated exposure)

STOT-SE Specific target organ toxicity (single exposure)

SUSMP Standard for the Uniform Scheduling of Medicines and Poisons

SWA Safe Work Australia

TLV Threshold Limit Value

TWA Time Weighted Average

[ End of SDS ]