Electronic Specialty Gases (ESG) Safety - Oxidizer Gases

Overview:

Electronic Specialty Gases (ESGs) are used to manufacture semiconductor, solar cells etc. Oxidizing gases are gases which may cause or contribute to the combustion of other material more than air does and can react rapidly and violently with combustible materials or flammable vapors. Oxidizer gases include halogens (chlorine), nitrous oxide, and oxygen..

Understand the Hazards:

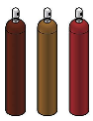
Health Hazards (GHS)

Many of these Oxidizer gases possess more than one hazard due to the inherent physical properties, biological and chemical reactivity. *Always refer to Safety Datasheet from the manufacturer to understand the hazards and recommendation for safe handling.*

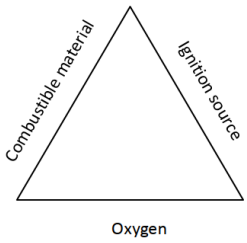
Oxidizer Fire

Lead to severe fire

Compressed Gas



Lead to explosion



Source: AIGA

Safe Storage and Handle:

Hazard Classification

Ventilation

Gas Leak Detection

Scrubber Systems

No Flammables

Restrain Cylinders

Security

Cylinder Trolley

Valve Protection

Labelling

Operational Safety and PPE for Personnel:

Risk Assessment

Procedures

Trainings

Safety Glasses

Safety Shoes

Safety Gloves

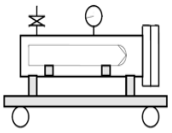
Self Contained Breathing Apparatus

Chemical Protective Clothing

Portable Gas Leak Detector

Emergency Response Plan

Emergency Eye Wash & Shower



Emergency Response Containment Vessel

Refer to AIGA 018, Safe Handling of Electronic Specialty Gases

ASIA INDUSTRIAL GASES ASSOCIATION
No-2 Venture Drive,# 22-28 Vision Exchange, Singapore 608526, Tel: +65 67055642
Internet: www.asiaiga.org | *LinkedIn Profile: https://www.linkedin.com/company/asiaigaorg*